DEFENCE INNOVATION NETWORK

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NSW GOVERNMENT

DEFENCE INNOVATION NETWORK'S

PILOT PROJECT GRANTS

Guidelines for applicants 2021-22

www.defenceinnovationnetwork.com

1. Scheme Purpose

1.1. DIN Pilot Project funding scheme is an annual, competitive program that supports cross-discipline university collaboration in NSW. The scheme is administered by the NSW Defence Innovation Network and funded by the NSW Government.
1.2. The key objective of the DIN Pilot Project Funding is to conduct a rapid feasibility study on new ideas for Defence and develop these ideas into concept or technology that can attract further investment from the Government or industry. Pilot Projects should demonstrate high potential to satisfy an existing or emerging Defence capability need or a current or emerging defence industry need.
1.3. Problem statements, which serve as a basis for a call-out for proposals, are sourced from industry or defence end-users and have been shaped into relevant problem statements for university research.
1.4. Applicants are expected to consult with the problem statement's originator to ensure alignment with their identified needs.

2. Support available

2.1. The total funding available for university research projects is $600,000 in 2021/22.
2.2. Successful proposals can be funded up to $150,000 for projects scoped for 6-12 months.
2.3. Funding will be paid to the lead university in a single tranche. The lead university is responsible for the distribution of the funds to Collaborating organisations.

3. Eligibility criteria

3.1. Project proposals must be led by a DIN member university, and the funding can be accessed by the DIN member universities only.
3.2. Project proposals must demonstrate inter-university collaboration and have to involve at least two DIN member universities.
3.3. Projects funded by DIN Pilot Project Grant Scheme must be Defence relevant and must be capable of generating additional funding or investment to facilitate progress towards commercialisation.
3.4. A chief investigator can lead a maximum of two projects in four years. There is no limit on how many projects can a researcher participate in.
3.5. Industry partners may be part of the project team applying for Pilot Project funding, but the DIN funds cannot be used to cover industry partner expenses.
3.6. To be eligible, an industry partner must have an Australian Business Number and must be registered as a company, other entity or individual that will agree to form a company to enter into a grant agreement.
3.7. Where an industry partner is part of a project, a separate agreement between the industry partner and the lead university has to be signed.

4. Use of funds

4.1. Funding from the DIN Pilot Project Grant Scheme will take the form of a cash contribution following the execution of a Multi-institutional Collaborative Agreement between participating universities and the Defence Innovation Network (Administered by UTS).

4.2. Funds must be used to support the research project described in the application directly and can include the following items:

- *Direct salary costs* for employees working on the project including chief investigators, early career researchers, research assistants etc. Where chief investigator salaries are claimed, this must be specifically justified and is subject to approval. DIN's preference is to use funds for research associates and fellows working directly on the project.
- *On-cost salary expenses* up to a maximum of 30% of direct salary costs and consistent with the university policy. On-costs must be itemised in the application and can only include the following items: superannuation, payroll tax, payroll tax on superannuation, workers compensation, long service leave, and maternity leave. Universities must submit their on-cost salary expenses itemised by each category as the attachment of the application form.
- *Equipment, software, material and consumables* essential for the project. Funding will not be provided for equipment and consumables that are considered to be for broad general use or already held by the university.
- *Travel costs* essential to the project for the employees working on the project.
- *Stipends for HDR students* working on the project.

4.3. Budget items that are not supported by the Pilot Project funding and should NOT be requested in the budget include:

- *Infrastructure (overhead) costs* related to the general operations of the university shared among projects and functions.
- *Salaries of industry partners* working on the project or any other industry partner expenses
- *Costs not directly related to the project* including but not limited to conference fees and travel, workshop expenses, entertainment costs, professional membership fees, professional development courses, visas, relocation costs, insurance and other indirect costs.

4.4. All expenses must be itemised in the budget section of the grant application. Grant funds must be spent in accordance with this budget, and any requests for variations must be made to the Defence Innovation Network Manager and approved in advance.

4.5. The DIN Technical Panel will have sufficient flexibility to tailor funding support according to what it believes is required to assist with the project delivery.

5. Selection criteria

5.1. DIN Technical Review Panel, appointed by the DIN Steering Committee, will evaluate applications against information and evidence provided concerning the selection criteria:

- Identified Need in Defence
- Potential for impact and implementation pathway
- Novelty and potential to become world-leading
- Technical/ Scientific Merits, Scientific and Technical Risk, Best Collaborative Team

5.2. DIN Technical Review Panel will make the final decision regarding funding allocations to projects and submit this decision to the DIN Steering Committee for noting.

6. Application process

6.1. Application for the DIN Pilot Project Grants is a one stage process.

6.2. Applicants must submit an electronic copy of the application by the due date to info@defenceinnovationnetwork.com

6.3. All applicants are expected to communicate with their university coordinator to ensure that they have optimum visibility of the progress of intended submissions.

- *University of Wollongong:* Robert Beretov
- *University of Western Sydney:* André Urfer
- *University of Sydney:* Amber Ahuja
- *University of Technology Sydney:* Michael Murphy, Miriam Cuellar Flores
- *University of New South Wales:* Mick Cook
- *Macquarie University:* Mark Berlage
- *University of Newcastle:* Sally Whittaker

6.4. Applicants are expected to correspond with the originator of the problem during the proposal drafting stage to ensure clarity of the problem's objectives and alignment with the end-user requirements. Forming teams are expected to connect with the problem originator via Forum on DIN's website or to contact DIN at info@defenceinnovationnetwork.com. Successful teams will also be expected to communicate with the problem owner for the duration of the project.

6.5. The DIN Technical Review Panel will access all eligible applications on merit against the selection criteria and, at its discretion, may choose not to provide funding to applicants.
6.6. Applicants should clearly identify in their application (including attachments) any information that needs to be treated as confidential.

7. Selection Process

7.1. DIN will collect applications and will conduct an initial completeness review of the applications. Advice will be provided to the DIN Technical Review Panel regarding eligibility.
7.2. The DIN Technical Review Panel will assess each application on a competitive basis relative to the criteria and other applications.
7.3. The DIN Technical Review Panel may seek further advice and request an additional assessment from subject matter experts. Experts may include DST scientists, problem originators, and academics.
7.4. All applicants will be informed of the outcome and the decision on their applications, whether or not they are successful.
7.5. The timeline of the selection process is as follows:

12- Apr-21	Call for Proposals
24-May-21	**Applications due**
21-Jun-21	Technical Review Panel Assessment
28-Jun-21	Result announcement
Jul-Sep-21	Contracting
01-Oct-21	Project Start

8. Funding Agreements, Reporting Requirements & Acknowledgement

8.1. All successful applicants who accept a grant will be required to enter into a formal Multi-institutional Agreement. The Agreement will specify the obligations and accountabilities of the recipients.
8.2. Where an industry partner is part of the project, a separate agreement between the industry partner and lead university has to be signed before the project work can start.
8.3. Successful applicants will be required to provide a final report to the DIN (Administered by UTS) at *info@defenceinnovationnetwork.com within* two months of the end date negotiated in the Agreement.
8.4. The final report consist of a Technical report and Financial acquittal. The Lead organisation submits Financial acquittal for the project as a whole, including Collaborating organisations' financial acquittal.
8.5. All expenditure must be in accordance with the project description and broad structure of the proposed project costs detailed in the proposal. Lead organisation must retain the evidence of the expenditure.

8.6. All changes to the project cost or roll-over of the funds must be justified and approved by the DIN (Administered by UTS).
8.7. Any material or research findings published in respect of a DIN Pilot Project – funded activity must include acknowledgement of DIN Pilot project funding and the NSW Government in a form: *"We thank the NSW Defence Innovation Network and NSW State Government for financial support of this project through grant DIN Pilot Project grant 2021-22."*

ANNEXURE A: DIN SECURITY POLICY

The DIN reserves the right to cease funding for DIN projects based on security governance.

In the context of national Defence, security refers to an organisation's capability to provide assurance to the Australian Government that information and assets sensitive to national interests are safeguarded.

Good security governance includes documented policies and procedures that translate into practical outcomes, including personnel training, cybersecurity and safeguarding data networks and intellectual property, and enhancing the physical security of properties, such as access to buildings and facilities.

Universities are open academic communities, but as a business and public entity, they routinely employ a range of security measures to ensure student safety and protect intellectual property. These measures include - but are not limited to - access controls, information network firewalls, asset management and tracking. It is a standard practice among DIN member universities to manage security classifications up to COMMERCIAL-IN-CONFIDENCE, with higher security measures implemented on an individual basis as required.

While the core DIN team is responsible for managing information confidentiality associated with the Defence Innovation Network's day-to-day running, security governance for defence research - including that funded by the DIN through Pilot and Seed Projects – is the responsibility of the DIN member universities. Universities can develop and demonstrate their security governance through membership with the Defence Industry Security Program

As of September 2019, the DIN will consult with Defence experts on sensitivities associated with proposed research and collaborations to assess the level of security required at various project stages. The consultation will refer to the DISP Decision Matrix available online. Security recommendations will be passed to university business offices through DIN university coordinators.

ANNEXURE B: TECHNICAL PANEL COMPOSITION

CHAIR

Marc West, Associate Director Defence Innovation Network, Defence Science and Technology Group

TECHNICAL PANEL MEMBERS

Mr Darren Burrowes, Chief Technology Officer, BlueZone Group

Prof Ian Gibson, Associate Dean Industry & Innovation, Faculty of Engineering, UNSW Sydney

Mr Will Hutchinson, Chair, Defence Innovation Network & Thomas Global Systems

Mr Carlos Bowket, Manager, Projects, Office of the NSW Chief Scientist and Engineer

Prof Kate Stevens, Director, MARCS Institute, Western Sydney University

Prof Bradley Williams, Director Defence Innovation Network, Associate Dean for External and International, Faculty of Science, University of Technology Sydney

Subject matter experts from the Defence Science Technology Group.

ANNEXURE C: GUIDELINES FOR TECHNICAL PANEL REVIEWERS

Reviewers will be asked to agree to confidentiality terms. Reviewers must not correspond with applicants or interested parties relating to the proposal during or after the review process.

DIN attempts to select reviewers with no conflict of interest. Where a reviewer believes he/she has a conflict of interest, no review is required, but an explanation of the conflict of interest is requested. The DIN will source an alternate reviewer. Conflicts of interest may be:

- **Direct**; i.e. you are an interested party in a proposal;
- **Indirect**; i.e. you have an association with one or more of the institutions involved in the proposal;
- **Involvement in a competing proposal or business**; i.e. you have direct or indirect involvement with a competing bid or business activity.

Reviewers are asked to apply judgement when assessing science excellence and impact relative to the research stage and the area of impact. In principle, the DIN will co-fund research at any TRL, which can be thought of as generating new ideas, developing emerging concepts, and leveraging proven ideas.

Reviewers should assess the proposal against the supplied criteria and are expected to provide an objective appraisal of the proposal against these criteria, i.e. undertake your assessments following the direction in these guidelines. An assessment template is provided, and reviewers are asked to assess only against the specific criteria identified for their institutional type (DIN, DST Group or University). Reviewers should use the information contained in the application and the supplied supporting documentation and may in addition, employ any other information of relevance to make the assessment.

Reviewers should provide explanatory text to support your assessment, including reference to supporting key evidence, such as scientific publications, strategic guidance documentation, patent information, etc. It is vital that your comments support your score and fairly reflects the assessment, and is accurate, professional, and honest.

ANNEXURE D: ASSESSMENT CRITERIA

For Pilot Projects, the following criteria will apply, falling into IMPACT and EXCELLENCE

- Identified need in Defence (technology or capability)
- Potential for impact and implementation pathway
- Novelty and potential to become world-leading
- Technical / Scientific Merits, Scientific and Technical Risk, Best Collaborative Team

NOVELTY AND POTENTIAL TO BECOME WORLD LEADING; TECHNICAL FEASIBILITY AND RISK; BEST COLLABORATIVE TEAM (EXPERT REVIEWERS)

What is the quality of the proposed research, science, or technology, or related activities?

You may wish to consider particularly:

a. **The novelty and originality of the proposal**. The idea itself does not have to be novel, but the sum of the concept and the application must be distinctive. We are looking for 'fresh thinking' rather than an obvious extension of existing research. If you are aware of similar work, please provide a reference. Similar work will not necessarily disqualify a proposal.

b. **The scientific credibility of the idea and its logic**. Is the scientific basis for the idea established well in the proposal?

c. **The quality of the science, description of critical steps** (including go/no-go steps), and methodology. Is the proposed research fit for the purpose of the proposed outcome and impact sought?

d. **The degree of scientific rigour**, e.g., the accuracy of the approach and hypothesis. Please provide advice on how either might be improved.

e. **The scientific risks and uncertainties identified in the proposal.** Any omissions and how they are managed. Are the timescales realistic? Is the size of risk and plans to mitigate that risk consistent with the stage of research?

f. **Team composition.** Does the team represent a collaborative effort between DIN member universities? Do the team members possess the necessary expertise consistent with the needs of the project? Does the team possess other useful expertise, like previous experience or engagement with Defence or industry partners? For stage 2: Does the team have the necessary skills and track record to deal with the project?

When reading the proposal, it would be valuable if you can consider the following questions in your scoring and commentary:

- Comment on the strengths and highlights of the proposed research.
- Highlight the deficiencies or weaknesses of the proposed research.
- Were there any concerns or issues around the proposed research relating to the technical team, prior events, existing technologies, existing knowledge/ research?

POTENTIAL FOR IMPACT AND IMPLEMENTATION PATHWAY (STEERING COMMITTEE)

You may wish to consider:

- Has the applicant clearly articulated how this opportunity can be transformative for Defence or the defence industry/company in the future?
- Is the proposed implementation pathway credible relative to the proposed stage of research, bearing in mind the TRL or the research?
- Are the scale and breadth of proposed benefits credible given the area of impact, and are these consistent with the proposal's outcomes?

'Implementation pathways' are expected to demonstrate that the proposal has considered specifics or mechanisms by which outputs may eventually become implemented or commercialised.

The credibility of indicative implementation pathway(s) to deliver benefit to Australia will be assessed and may not be not limited to a single industry partner or end-user, and may be uncertain in nature. A 'credible' implementation pathway analysis will consider the characteristics of the end-use area and is not a generic description.

The information sought is indicative only but should nonetheless impart confidence that the research team has considered this aspect, even though the information may be tentative and uncertain. It is recognised that early-stage investigations are likely to have less concrete implementation pathways with higher-level information at the generic beneficiary and end-user level, while more advanced (i.e. higher TRL, near-to-market) studies will present a clearer view of a pathway to impact and implementation.

'Impact' will be measured by one or more of scale, extent, and urgency of Defence need or transformative nature of the outputs (i.e. creating new technologies or solutions altogether).

'Scale' means the size, or how much, the outcomes will benefit Australia and Defence.

'Extent' means how widely the outcomes will benefit Australia or Defence.

For example, a given technology may require only five specimens in any given Defence Force. This will have a small size (unless it is of very high value). If the

technology is of such a nature that it is likely to be taken up by every Defence Force in which it is able to be implemented, then it will have a wide extent of coverage.

'Urgency of Defence need' can be measured against expressed priority areas, such as in the Defence Innovation Hub or via other mechanisms.

A proposal that demonstrates high impact would receive the following type of comment:

The potential benefits are enormous and with impacts that are nationally significant across the whole of a sector or several sectors. The estimates of benefits are credible and clearly described. The proposed implementation pathways are of an extremely high standard, completely credible, and the supporting information is satisfactory in scope.

RANKING SYSTEM

IMPACT

1. **Identified Need in Defence**[1]
   - **[0] None:** No apparent relationship to Defence S&T priorities
   - **[1] Low:** Peripheral connection to Defence S&T priorities (substantial modification would be required to apply the outputs to a Defence problem)
   - **[2] Medium:** Research is closely related to a Defence problem, or that is developing technology of direct relevance to a Defence application. One industry partner is involved.
   - **[3] High:** Working directly on a Defence problem in partnership with Defence. Two or more industry partners are involved.

2. **Potential for impact and implementation pathway**[2]
   - **[0] None:** The proposal demonstrates low impact and/or a poorly articulated implementation pathway.
   - **[1] Low:** The proposal shows some impact and/or a reasonably well-developed implementation plan.
   - **[2] Good:** The impact is likely to be significant, and the implementation plan credible.
   - **[3] Outstanding:** There is likely to be a high impact if successful, and the implementation plan is clear, credible and contains specific and detailed end-use information.

EXCELLENCE

3. **Novelty and potential to become world-leading**
   - **[0] None:** Is routine and presents little or no novelty.
   - **[1] Low:** Displays some novelty, but the outcomes are likely to be incremental.
   - **[2] Medium:** Is differentiated will lead to notably improved technology.
   - **[3] High:** Distinctive approach that is highly likely to produce leading innovations or capability.

[1] Assessed by Defence experts
[2] Assessed by Technical Panel

4. **Technical/Scientific Merits; Scientific and technical risk (science component)**
   - **[0] Low:** The Proposal is uncompetitive and has significant weaknesses or flaws, such as a poorly developed or costed plan, no demonstrated ability that the investigators can deliver on the proposed research, or a lack of novelty or value. Risks are poorly articulated or are unmitigated.
   - **[1] Moderate:** An interesting proposal. Developing expertise amongst investigators. Some concerns about either the resource estimate or the ability of the researchers to deliver based on their understanding of state of the art or their track record. The proposal may lack a compelling element. Risks are partly identified or inadequately mitigated. Risks outweigh the benefits.
   - **[2] Good:** High-quality research and a strongly competitive proposal. Investigators have provided evidence of previous ability to deliver. Risks have been well articulated and mitigated, although some residual risks might remain. The potential benefits outweigh potential risks.
   - **[3] Outstanding:** Of the highest quality and at the forefront of research in the field. Well budgeted for the proposed statement of work. Soundtrack record of investigators. Risks have been adequately identified and mitigated.

5. **Team Technical/Scientific Merits; Collaboration and Track Record**
   - **[0] None:** The team consists of an individual lead researcher (with or without students, research associates) or has inadequate expertise to lead to a successful outcome.
   - **[1] Low:** The team consists of two lead researchers from the same institution (with or without students, research associates)
   - **[2] Good:** The team consists of two or more lead researchers from different institutions with the fit for purpose expertise.
   - **[3] Excellent:** The team consists of two or more lead researchers from different institutions that encapsulate the best expertise from across the DIN.

PILOT PROJECT ASSESSMENT FORM

Application Number:

Title:

Reviewer Name: _____

Reviewer's Institution: _____

Security – **What level of DISP membership is recommended for this proposal?**[3]

Comments: *e.g., What factors contribute to increased sensitivities? At what point does unclassified research become sensitive (e.g., performance threshold, user requirements, interfaces or dependencies on government-furnished equipment, public perception or institutional reputation, applications)*

Criterion 1 – **Identified Need in Defence**

Ranking (circle one): 0 1 2 3

Comments:

Criterion 3 - **Novelty and potential to become world-leading**

Ranking (circle one): 0 1 2 3

Comments:

Criterion 4 – **Technical and Scientific Merit/ Scientific and Technical Risk**

Ranking (circle one): 0 1 2 3

Comments:

Criterion 5 – **Team Collaboration and Expertise**

Ranking (circle one): 0 1 2 3

Comments:

[3] Refer to http://www.defence.gov.au/dsvs/industry/documents/DISP-Decision-Matrix.pdf