

## Industrial AI SME Grant Program Guidelines

### 1. Purpose

The Industrial AI SME Grant Program aims to support South Australian small and medium enterprises (SMEs) to adopt Artificial Intelligence (AI) by providing them with access to Machine Learning (ML) engineering expertise from the Australian Institute for Machine Learning (AIML) at the University of Adelaide.

This program offers a unique opportunity for South Australian businesses to enhance their business operations, develop innovative solutions, and leverage AI technology to gain a competitive edge. These transformative technologies can provide businesses significant ongoing benefit and growth potential. The value of this competitive advantage being offered to businesses cannot be overstated.

Empowering SMEs with AI know-how: Instead of cash, this grant offers invaluable access to AIML team of machine learning engineers, providing tailored support to elevate your AI and machine learning capabilities.

The Industrial AI program is supported by the South Australian Government through the Department of State Development and the Research and Innovation Fund, as part of the Industrial AI partnership with AIML, with the goal to support the development of a core capability and adoption of industrial AI and drive economic growth, improve productivity and competitiveness resulting in skilled jobs creation across a range of sectors.

### 2. Objectives

The objectives of the SME Grant Program are to support the adoption of AI within South Australian businesses to grow core capability, drive economic growth and encourage job creation across a range of sectors. The benefits to individual businesses include:

**Support Innovation:** Foster innovation and technological advancement.

**Enhance Competitiveness:** Improve their efficiency, productivity, and market competitiveness through AI solutions.

**Build Capacity:** Strengthen technical capabilities.

**Unlock investment:** Secure future funding.

### 3. Program Details

Eligible applicants must contact AIML to discuss eligibility prior to submitting a formal application.

After consultation, applicants will be advised to apply for either the AI Road Map or ML Innovate program, which are described below:

## AI Road Map Program

- ✓ Desire to adopt AI but with a basic or intermediate understanding of ML technologies
- ✓ Minimum level of technological capability
- ✓ Commitment (client-side engagement and access) to explore opportunities
- ✓ Clear business strategy and collective executive support to pursue transformative AI

## ML Innovate Program

- ✓ Clear machine learning Use Case defined
- ✓ Utilisation or productisation pathway
- ✓ Appropriate infrastructure to support solution, or commitment to acquire as needed
- ✓ Client-side post deployment support
- ✓ Opportunities for training and knowledge transfer

### AI Road Map Program:

The AI Road Map grants are designed to help businesses identify and harness the potential of AI and machine learning.

An experienced AIML engineer will conduct a comprehensive analysis of your company's processes, goals, data and current technological capabilities. The objective is to produce a tailored AI road map that outlines specific opportunities where AI can add substantial value.

Whether you are looking to enhance existing AI initiatives or seek new avenues to integrate AI solutions, the road map will provide actionable insights and strategies to achieve these goals.

Key components of the AI Road Map Program include:

- **Current State Assessment:** A joint examination of the company's current operations, technology infrastructure, data availability, and existing AI initiatives, if applicable. This thorough assessment serves as a foundation, identifying the starting point and existing resources that can be leveraged.
- **Opportunity Identification:** The road map will pinpoint specific areas within the business where AI can drive significant value. Potential areas of focus may include process automation, customer experience enhancement, predictive analytics, or the development of new AI-driven products and services.
- **Data Strategy:** The program will provide guidance to the business on effective data collection, management, and utilization to support AI initiatives. This includes identifying data gaps, recommending methods for generating or acquiring necessary data, and ensuring data quality and accessibility.

- **AI/ML Use Cases:** The road map will collaboratively present practical examples of how AI and ML can be applied to address the company's unique challenges and opportunities. These use cases offer a clear understanding of potential projects and their anticipated outcomes.
- **Implementation Plan:** A detailed, step-by-step guide on how to execute the AI strategy will be provided. This plan will cover timelines, resource allocation, technology stack recommendations, and potential partnerships or vendor engagements to help facilitate business ownership of the resulting capability.
- **Risk Assessment and Mitigation:** The program will identify potential risks associated with AI implementation, such as data privacy concerns, ethical considerations, and technological challenges. It will also propose strategies to mitigate these risks effectively.

By participating in the AI Road Map Program, businesses will be supported in strategically aligning their AI initiatives to the business' broader objectives, drive innovation, efficiency, and increased competitive advantage through the responsible and effective use of AI technology.

*Who benefits most from this program? SME businesses looking to adopt AI, who can devote time and resources to explore the opportunity and are willing to make an investment in their project.*

## **ML Innovate Program Grants:**

For applicants that can clearly articulate a use case and meet the eligibility criteria especially regarding accessible data and implementation resources, the ML Innovate program will be more suitable.

This program assists in delivering an AI solution for a company. The process is collaborative, requiring a commitment from the company to work with the machine learning (ML) engineers for design, development and deployment of an AI system.

Applicants are required to demonstrate an intent to utilize and continuously improve the AI solution post-deployment. This can be achieved by upskilling existing personnel, hiring new talent, or committing to outsourcing the ongoing maintenance and enhancement of the AI models, ensuring their long-term effectiveness and alignment with evolving business needs.

Project IP will be transferred to the applicant on completion of the project. The University retains the ownership rights to its Background IP and any improvement to University Background IP.

Where the applicant requires access to university background IP, which is fundamental for purposes of commercialisation of the Project IP or deliverables developed under the Project, the university grants the applicant a non-exclusive licence to use the university Background IP to enable the applicant to use the Project IP.

## **Key Activities in developing an AI Solution:**

- **AI Road Map:** It is anticipated that businesses applying for the ML Innovate program can clearly articulate a specific problem that AI can address and define clear objectives for the AI solution. For example, a manufacturer seeking to optimize a specific production process using computer vision to identify product defects, or a retailer wanting to reach a specific customer segment through clustering to transform how they interact with customers in a fine-tuned approach.
- **Solution Design and Architecture:** ML engineers will design the technical architecture of the AI solution. This involves selecting the appropriate tools, technologies, and algorithms that best suit the company's needs. The design phase ensures that the AI solution will integrate seamlessly with the company's existing systems and processes.
- **Data Strategy and Preparation:** Data is the backbone of any AI solution. Applicants to the ML Innovate program are required to demonstrate that they have sufficient data and infrastructure to share this data with AIML engineers. Considerations should include:
  - **Security and Privacy:** Your data must comply with all relevant security and privacy regulations.
  - **Data Usage:** The data you provide will be used strictly for the grant project and according to the terms outlined in the project proposal.
  - **Data Ownership:** You retain ownership or rights to use the data. We will access and use it only as needed for project execution and evaluation.
  - **Compliance and Agreements:** Companies will be asked to formalise their approach to data sharing through an agreement that specifies security measures, data handling practices, and confidentiality terms.
  - **Risk Management:** AIML will identify risks and concerns, however the onus is on the company regarding managing data-related risks.
  - **Data depth and variation:** For machine learning to be able to make human like decisions, large amounts of data are needed that have within it, repetitions of the details that a human might require to be able to make a similar decision expected of the AI. This includes data that provides good examples of variations that could occur in the real world.
- **Model Development and Training:** The next phase involves developing and training the AI models. The ML engineers will experiment with various machine learning algorithms, fine-tuning them to achieve optimal performance. This step requires rigorous testing and iteration to ensure the models meet the desired accuracy and reliability standards.
- **Integration and Deployment:** After the models are developed, they are integrated into the company's operational environment. The ML engineers will deploy the AI models into production, ensuring they are robust, scalable, and aligned with the company's workflows. This step also includes businesses setting up the necessary infrastructure to support the AI solution.

- **Testing and Validation:** Before full-scale implementation, the AI solution undergoes extensive testing and validation by the business and the engineers. The ML engineers will conduct pilot runs, assess the outcomes, and make any necessary adjustments to refine the models. This ensures that the AI solution performs as expected under real-world conditions, also verified by the business themselves.
- **Ongoing Monitoring and Maintenance:** Applicants are asked to consider post-deployment requirements. AI solutions require continuous monitoring to ensure it continues to deliver value. Protocols will need to be established to track performance, address any issues. Models may need to be updated to adapt to changing business requirements or data inputs.
- **Training and Knowledge Transfer:** To ensure the company can effectively use and maintain the AI solution, the ML engineers will provide robust documentation. This knowledge transfer empowers the company's internal teams to manage the AI systems independently and ensures long-term success.

AIML will work with applicants to identify an achievable outcome for the number of grant hours awarded. Matched funding will be reviewed favourably for large projects. Alternatively, some applicants may choose to work towards an AI prototype, as a demonstrator for grant applications and/or other forms of revenue raising.

*Who benefits most from this program? SME businesses who can clearly articulate a use case, can devote time and resources for the development and implementation, and are willing to make an investment in their project.*

## 4. Eligibility Requirements

To qualify for the AI Road Map and/or ML Innovate Program, applicants should consider the following criteria:

- An organisation comprised of one or more legal entities (not a person); incorporated or established in Australia.
- **Business Size:** The business must be classified as a small or medium enterprise defined as having fewer than 200 full-time equivalent employees.
- **Location:** The business must be registered and operate in South Australia; demonstrated by a physical premise in South Australia and the employment of >50% of staff in South Australia.
- Be able to enter into a legally binding agreement with the University of Adelaide
- **Data:** Businesses need to have sufficient data and infrastructure to allow timely access for AIML engineers to build and train algorithms. The company must be willing to provide

expressed written permission for AIML to access agency data, and that the agency owns the data concerned.

- **Funding and Vision:** Businesses need to be able to demonstrate commitment from executive leadership to ensure appropriate resources are available to actively implement, integrate, and continuously improve the solution, ensuring it is effectively utilised. This includes (and is not limited to):
  - o **In-house expertise:** Staff time with appropriate domain expertise to enable success during and after the granting period.
  - o **Cash / in-kind** contribution proportional to the level of support requested.
- **Impact:** Willingness to promote, including through media releases by AIML and/or the South Australian Government, case studies and promotional videos and social media posts (non-commercially sensitive) successful outcomes.

**Previous grant recipients:** Businesses that have previously received state government funded AIML engineering support will be expected to demonstrate:

- Outcome of previous engagements.
- Justify the need for new engagement.
- A 1:1 financial contribution towards second and subsequent applications.

## 5. Assessment and Approval Process

1. Interested parties should contact AIML at the [IndustrialAI@adelaide.edu.au](mailto:IndustrialAI@adelaide.edu.au)
2. AIML will hold a preliminary meeting and conducts initial due diligence.
3. Subject to AIML's preliminary assessment, the interested parties will be:
  - a. Directed to submit an online application to the AI Road Map program.
  - b. Invited to work with AIML to workshop an application for the ML Innovate Program.
  - c. Informed that the Potential Client is unsuccessful in their request.
4. The Project Leadership Team members are sent a copy of the completed application and any supporting documents.
5. The Project Leadership Team members assess the application using the Assessment Criteria listed below in Section 6.
6. The Project Leadership Team meets to discuss each member's scoring of the application and decide whether to support the application.
7. The Project Leadership Team's decision is recorded in the meeting minutes.
8. The applicant is informed they:
  - a. Are successful (subject to an executed collaboration agreement).
  - b. Are unsuccessful; or

- c. The Project Leadership Team require more information.

## 6. Assessment Criteria and Criteria Weighting

All applications will be reviewed at quarterly meetings by the Industrial AI Project Lead Team. Applicants will be notified of the outcome of their application within two weeks of each meeting.

### Eligibility Criteria for AI Road Map and ML Innovate Program:

Does the applicant meet the following essential eligibility criteria? **(Yes / No)**

- Is the applicant classified as an SME defined as having fewer than 200 full-time equivalent employees. **(Yes/ No)**
- Is the applicant operating in South Australia? **(Yes/No)**
- Has the applicant demonstrated commitment from executive leadership through a signed letter of support outlining dedicated resources and long-term vision for AI integration? **(Yes/No).**
- Has the applicant provided written permission for AIML to access data relevant to the proposed project, ensuring compliance with privacy and security regulations? **(Yes/No)**
- Capability to sign a contract with the University of Adelaide for this project **(Yes/ No)**

Successful applicants **must** answer Yes to all five questions in order to progress.

### Scoring Criteria for ML Innovate Program Funding:

- Technology Readiness Level (TRL) to commence the project **(20 points)**
  - The project requires efficient use of time to deliver the expected outcomes. Assign a score based on a TRL scale (e.g., 1-9), with higher scores indicating greater maturity of the technology.
  - Does the applicant have a proof-of-concept or prototype demonstrating feasibility? **(Yes/No, points awarded)**
  - Does the applicant have existing infrastructure compatible with AI implementation? **(Yes/No, points awarded)**
- Quality of data held by the client applicable to the project **(20 points)**
  - Data Volume: Is there sufficient data volume for training AI models? **(Score based on estimated size)**
  - Data Quality: How clean, accurate, and representative is the data? **(Score based on assessment)**
  - Data Relevance: How directly relevant is the data to the proposed AI solution? **(Score based on alignment)**

- Level of in house technical and organisational change expertise that are committed to the project **(20 points)**
  - Technical Skills: Does the applicant have staff with some expertise in relevant technical areas (e.g., data manipulation, software development)? **(Score based on qualifications and experience)**
  - Organisational Change Management: Depending on the size and need, does the applicant have personnel experienced in managing organisational change related to technology adoption? **(Score based on experience)**
- Level of funding and vision to build beyond the initial engagement with AIML **(20 points)**
  - Financial Contribution: What is the level of financial contribution from the applicant (cash or in-kind)? (Score based on percentage of total project cost)
  - Long-Term Strategy: Does the applicant have a clear vision for how they will build upon the initial AIML engagement and sustain AI initiatives beyond the grant period? **(Score based on clarity and feasibility)**
- **For previous grant recipients (20 points):**
  - What was the outcome of the previous engagement?
  - Demonstrated need for further engagement.
  - Minimum 1:1 cash contribution towards new engagement.

Successful applicants must score a minimum of 10 points for each of the scoring criteria to be eligible to progress.

## 7. Required Agreement

Successful applicants will be required to sign a contract with the University of Adelaide. The contract includes clauses to protect your data and intellectual property.

The contract also has requirements for applicants to

- Complete a post engagement evaluation within a month of project completion, and approximately one- and three-years post completion to enable AIML to meet our reporting requirements. This evaluation to also collect a number of project metrics that will be reported to the Department of State Development at the completion of the engagement in order to measure project success.
- Acknowledge the funding source: *Machine learning expertise provided by an Australian Institute for Machine Learning (AIML) Industrial AI SME grant program. AIMLs Industrial AI program is supported by the South Australian Government through the Department of State Development's Research and Innovation Fund.*



- Support must be utilised within 6 months from the date of grant approval (unless agreed otherwise during contracting).

## 8. Contact Information

Applicants must contact AIML at [IndustrialAI@adelaide.edu.au](mailto:IndustrialAI@adelaide.edu.au) to schedule a confidential discussion. Following this, AIML will advise the suitability of your project to be considered and provide further information regarding the application process.