Industrial AI Government Efficiency Program Guidelines

1. Purpose

The Industrial AI Government Efficiency Program aims to support South Australian government agencies in adopting AI by providing them with access to Machine Learning (ML) engineering expertise.

This program offers a unique opportunity for South Australian government agencies to improve operational efficiencies, enhance their operations, develop innovative solutions, and leverage AI technology to improve public service delivery.

Empowering government agencies with access to AI experts: Instead of cash, this program offers invaluable access to AIML team of machine learning engineers, providing tailored support to elevate your AI and machine learning capabilities.

2. Objectives

The objectives of the Government Efficiency Program are to support the adoption of AI within South Australian government agencies to:

- Enhance public services and service delivery: Utilise AI technologies to improve the quality, accessibility, and efficiency of services.
- Drive operational efficiency: Implement AI solutions to streamline processes, reduce costs, and optimise resource allocation.
- Encourage and support innovation: Foster a culture of technological advancement and creative problem-solving within government agencies.
- Build AI capabilities: Strengthen the technical expertise and AI literacy of agency employees to ensure long-term success and sustainability of AI initiatives.

Improve decision-making: Leverage data-driven insights and predictive analytics to support evidence-based policy-making and strategic planning.

3. ML Innovate Program

Eligible applicants (see section 4 Eligibility Requirements) are required to contact AIML to discuss their use case prior to submitting a formal application.

After consultation, applicants will be advised whether their proposed use case is appropriate for this program..

For applicants that can clearly articulate a use case and meet the eligibility criteria especially regarding accessible data and implementation resources.

ML Innovate Program Prerequisites?:

- ✓ *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*

This program assists in delivering an AI solution. The process is collaborative, requiring a commitment from the Department 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 utilise 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 agency needs.

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

Where the agency 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 agencies applying for the ML Innovate program can clearly articulate a specific problem that AI can address and can define clear objectives for the AI solution

- **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 need. The design phase ensures that the AI solution will integrate seamlessly with the

department'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: Applicants 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 agency 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.

- **AI 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 agency'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 agency 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 agency 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 projects may choose to work towards an AI prototype, as a demonstrator for grant applications and/or other forms of revenue raising.

4. Eligibility Requirements

To qualify, government agencies should consider the following criteria:

- **Agency**: The applicant must be a South Australian government agency, department, or statutory body (see https://www.legislation.sa.gov.au/lists-and-index-to-sa-legislation/administrative-units).
- **Data:** Agencies need to have sufficient data and infrastructure to allow timely access for AIML engineers to build and train algorithms. The agency must also be willing to provide expressed written permission for AIML to access agency data, and that the agency owns or has the right to share the data concerned.
- **Commitment:** Agencies need to demonstrate commitment from the agency executive leadership to ensure appropriate resources are available for development, implementation and continuous improvement.

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

5. Assessment and Approval Process

1. Interested parties should contact AIML at the IndustrialAI@adelaide.edu.au
2. AIML will hold a preliminary meeting and conducts initial due diligence.
3. Subject to AIML's preliminary assessment, interested parties will be:

   a. Invited to work with AIML to workshop an application.
   b. Informed that they are not eligible for this program.

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 in Section 6 below.
6. Assessment committee (comprising of representatives from both State Government and the University of Adelaide) will meet to discuss each member's scoring of the application and decide whether to support the application.
7. The Assessment committee's decision is recorded in the meeting Minutes.
8. The applicant is informed if they:
   a. Are successful (subject to an executed Collaboration Agreement).
   b. Are unsuccessful; or
   c. The Assessment Committee require more information.

6. Assessment criteria

Eligibility Criteria

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

- Is the applicant classified as South Australian government agency? (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 consent for AIML to access data relevant to the proposed project, ensuring compliance with privacy and security regulations? **(Yes/No)**

For consideration by the Project Lead Team applications must answer Yes to all three questions to progress

Scoring Criteria for ML Innovate Program Funding:

- Likely improvements to Government products and/or services **(20 points)**
    - How well does the proposed AI solution address a specific need or challenge within government products or services? (Score based on relevance and impact)
    - What are the anticipated benefits of implementing the AI solution to SA (e.g., efficiency gains, improved service delivery)? (Score based on quantifiable benefits)
    - Is the impacted industry sector a priority for the State? (Score based on sector alignment/benefits)
    - Is the application likely to introduce a novel solution or approach (Score based on how much the boundaries of AI application in SA will be pushed)
- 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 and 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)

Successful applicants must score a minimum of 50% available points for each of the scoring criteria to be eligible to progress. Scoring Rubric available on request to assist in applications

7. Required Agreement

Successful applicants will be required to sign a Collaboration Agreement with the University of Adelaide. The contract includes clauses to protect the applicant's data and intellectual property.

The Collaboration Agreement 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.
- Acknowledge the funding source … *Machine learning expertise provided by an Australian Institute for Machine Learning (AIML) Industrial AI SME grant. AIML's Industrial AI program is supported by the South Australian Government through the Department of State Development and the Research and Innovation Fund.*
- Support must be utilised within 12 months from the date of grant approval (unless agreed otherwise during contracting).

8. Contact Information

Please contact us at IndustrialAI@adelaide.edu.au to schedule a confidential discussion about your Agency's AI needs.