

AI-Driven Procurement and Inventory/Stockpile Solution for Rice Traders

Enterprise Singapore ('EnterpriseSG') is the government agency championing enterprise development. We work with committed companies to build capabilities, innovate and internationalise.

EnterpriseSG is seeking to appoint a solution provider to develop an AI-powered solution that helps rice traders make smarter procurement and inventory/stockpile management decisions.

Context and opportunity

- Rice traders in Singapore play a critical role in ensuring national food resilience and are required to manage dual inventories - a mandatory stockpile held for emergency purposes, and a commercial inventory for local distribution or export. At the same time, traders must navigate complex procurement decisions on the timing, volume, and pricing of purchases across multiple source markets.
- Today, traders' rice procurement decisions often rely on manually gathered and fragmented signals across pricing, policy and supply. Purchasing is largely experience-driven and relationship-based, with limited use of structured market intelligence.
- There is an opportunity to harness AI to transform how traders procure and manage inventory - improving operational efficiency, cash flow, and business outcomes. We are seeking to appoint a solution provider to develop an AI-powered solution in collaboration with industry, as part of a broader effort to catalyse AI adoption in the rice trading sector.

Participating stakeholders and project timeline

- The appointed solution provider will be responsible for developing and delivering an AI solution for rice traders, in close collaboration with the following stakeholders: (i) Singapore Food Agency (SFA) on stockpiling requirements and regulatory context and (ii) group of selected rice traders that will contribute domain expertise, and feedback throughout the development process.
- The project will span three phases:
 1. Development phase: Encompassing model creation and initial deployment with participating traders that is expected to start in Q3 2026 (Sep 2026), with a prototype to be developed by end October 2026.
 2. Refinement phase: Incorporating feedback and learnings from the development phase, with the aim for the final solution to be completed by End December 2026.
 3. Scaling phase: To deploy the solution from Q1 2027 to other rice traders in the industry

Project objectives

The appointed solution provider will be expected to deliver an AI solution that should achieve the following outcomes:

- Enable traders to make more informed procurement decisions — specifically, ingest relevant data (both public and proprietary) to recommend insights optimising the timing, volume, and pricing of rice purchases.
- Support traders in managing their inventories (both stockpile and commercial) more effectively.
- Reduce reliance on informal, reactive information-gathering by providing data-driven, timely insights and recommendations.
- Build AI capabilities within rice trading firms, enabling them to maintain and operate the solution independently over time

Scope of work and project deliverables

- The appointed solution provider will be required to develop a base AI model for the rice trading industry – to address (i) procurement use case and (ii) inventory/stockpile management. The base AI model must be deployable within each trader's own operating environment, whether on-premise or on their preferred cloud infrastructure. This is to ensure that proprietary data does not leave the firm's environment.
- While a common base AI model will be developed, the AI solution should be capable of generating firm-specific insights and recommendations based on each firm's data, trading patterns, and business context.
- The solution should deliver a minimum of two applications, scoped in consultation with participating traders. This will include a chatbot as the anchor application, complemented by a second application determined based on trader preferences and needs — for example, a dashboard feature providing real-time inventory and procurement insights.

As part of this project, the appointed solution provider will also be expected to:

- Engage with third-party vendors to procure relevant proprietary data where required, based on the traders' feedback and needs.
- Co-develop the model iteratively with participating traders and SFA, from requirement-gathering through model build to firm-level deployment and adaptation.
- Provide implementation support to enable smooth adoption at the firm-level:
 1. **Technical support:** data ingestion, systems integration, API enablement, guardrail configuration.
 2. **Enterprise support:** onboarding, workflow customisation, adoption support.
 3. **Governance:** security and privacy via access controls, audit and monitoring.
- Offer a maintenance and support programme under clear service level agreements, covering updates, patches, retraining and data-feed subscriptions where needed to maintain model relevance.

The appointed solution provider will also be required to maintain the base model developed post development/deployment for at least 3 years. This includes developing a go-to-market plan for maintaining and improving the model, for scaling adoption across the wider trader base.

At all times, the appointed solution provider is expected to ensure appropriate safeguards to ensure that all firm-level data or workflows is not shared or stored anywhere without firm's prior approval. The appointed solution provider is required to manage and execute the project in its entirety, including closely monitoring of the milestones and providing weekly progress updates to EnterpriseSG upon project commencement.

See **Annex A** for key project milestones and deliverables.

Co-funding of AI solution

The appointed solution provider will be supported via Enterprise Singapore's grant - the grant will cover up to 50% of qualifying costs, including but not limited to base-model development (including data procurement fees), implementation support for firms (including licensing fees and maintenance costs) and go-to-market strategy.

Components to include in proposal submission

Interested solution providers are to submit a proposal comprising, but not limited to the following:

a) General Project Information

- Proposed project timeline, including key milestones such as requirement gathering, prototype delivery and final solution completion
- Total project costs, with a clear breakdown for each component. Where applicable, proposals should include any assumption underlying the cost estimates

- Project team structure and proposed members
- Track record for similar projects in related fields, which includes but is not limited to (i) prior experience in engaging small and medium business owners/enterprises, (ii) development of solutions relating to business procurement and/or inventory management and (iii) familiarity with the rice industry
- Co-development methodology, describing how the solution provider proposes to engage participating traders throughout the development process — including approach to requirement gathering, prototype validation, and incorporation of trader feedback.

b) Solution Information

- Approach across the whole tech stack – this includes the data layer, model and harness layer, application layer, etc. This may include:
 - How the base model can be customised at the firm level;
 - How the model will be kept current through regular data updates, how user feedback can be incorporated to refine recommendations over time, and how the solution can be enhanced as business needs evolve;
 - Description of user experience and how the solution will be embedded into day-to-day trading operations.
- Clearly articulate the data architecture, including security measures and safeguards.
- Deployment approach, describing how the base model will be packaged and deployed within individual firms' environments, including any technical prerequisites or integration requirements.
- Proposed model types (e.g. small language models, frontier LLMs, and predictive AI/ML models for forecasting) and decision points.
- Proposed framework on how solution efficacy would be measured and evidenced.
- Training and capability building plan – description on how to equip participating firms to maintain and operate the solution independently over time.
- Scaling plan describing how the solution can be extended beyond the initial group of participating traders to the broader rice trading sector following successful deployment.

See **Annex B** for envisioned solution development and deployment model.

Evaluation criteria

Submissions will be assessed on the following:

- Track record and team credentials
- Technical capability for solution development and implementation-support
- Pricing & value for money

The appointed solution provider is required to attend a briefing by EnterpriseSG within three (3) working days from the date of formal appointment (i.e. issuance of the Letter of Acceptance).

Interested Solution Providers: Submit proposal and supporting documents via FormSG link [here](#) by 30 August 2026. Shortlisted respondents will be invited to pitch. For enquiries, contact Andrew LOW (Andrew_LOW@enterprisesg.gov.sg) or Timothy YOUNG (Timothy_YOUNG@enterprisesg.gov.sg).

Notes:

This EOI does not constitute a tender, award or funding commitment. Any support is subject to Enterprise Singapore's prevailing evaluation and approval.

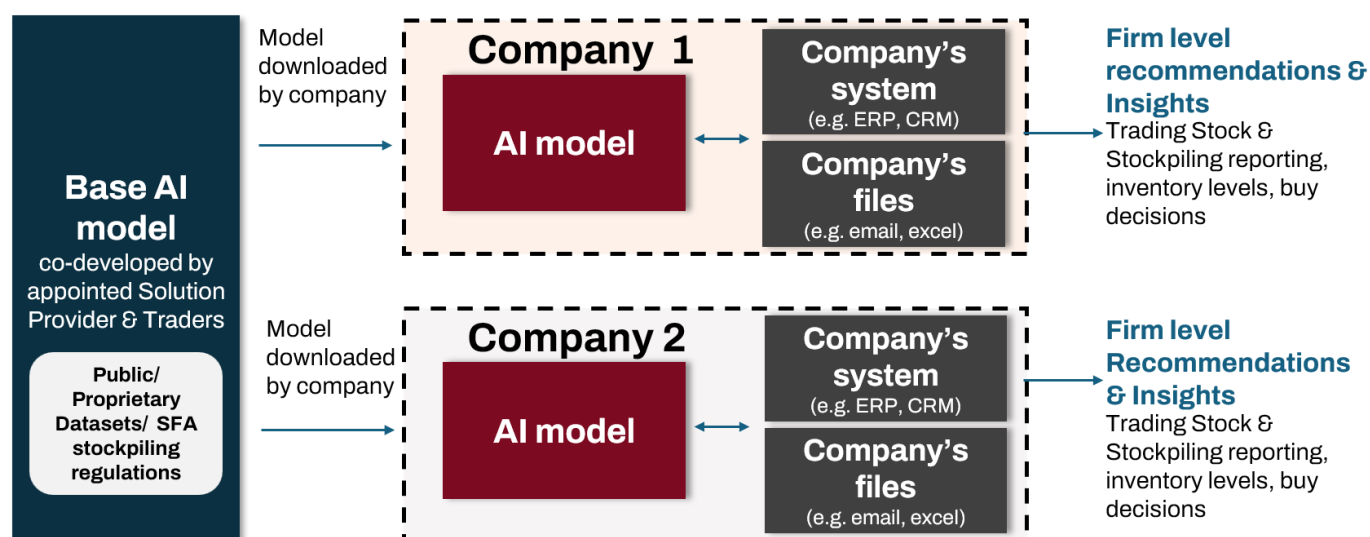
Annex A: Key Project Milestones and Deliverables

Timeline	Details
Within 3 working days of formal appointment	Project briefing with EnterpriseSG
Sep 2026	Commence engagements with (i) SFA and (ii) selected rice traders
End Oct 2026	Completion of prototype “base model”
End Dec 2026	Completion of solution development after testing in traders’ environment
Early 2027	Completed solution ready for scaling to other companies

Annex B: Required Solution Development and Deployment Model

The base AI model is to be co-developed by the appointed solution provider and participating traders, then downloaded into each firm’s own environment to enable (i) firm-specific insights and recommendations and (ii) data security.

- A single base rice domain model is co-developed with participating rice traders on public/proprietary datasets and SFA stockpiling regulations.
- Each trader downloads and customises the model within its own systems (e.g. ERP, CRM) and files (e.g. email, Excel).
- Firm-level recommendations (trading-stock and stockpiling reporting, inventory levels and buy decisions) are generated locally.
- Firm-level data will not be shared with or stored by the solution provider; model refinement is iterative but data stays with the firm.



RiceDAX must support all three deployment options for the AI model, allowing each participating trader to select the approach that best matches its data requirements, IT readiness and cost profile. Respondents should confirm their ability to deliver across all three.

1. On-premises – Suitable for firms with strict data residency needs, stable compute volumes, strong in-house IT
2. Trader’s private cloud – Strong residency but no appetite to own hardware
3. Trader’s public cloud (AWS, Azure, etc accessed through trader’s own account) – Flexible compute volumes, low upfront costing.