Leveraging Tech to Increase F&B and/or Retail Productivity

Context

Problem Statement:
How might we create manpower-lite digital and automation solutions to help F&B and/or retail businesses enhance operational productivity in their outlets?

About the Organisers

- **Stellar Lifestyle:** SMRT's business arm managing Singapore's largest transit retail and advertising network, with a growing portfolio in lifestyle concepts and digital engagement platforms.
- **Stellar Ace:** SMRT's media business, connecting brands to millions of commuters via integrated OOH-to-online campaigns.
- **Business Innovations Generator (BIG):** BIG is a four-month founder-centric incubator at SMU. It supports early-stage start-ups with mentorship, go-to-market guidance, workspace, and grant opportunities.

Supported by:

- **JRE Ventures:** Corporate venture capital arm of East Japan Railway Company (JR East, Japan's largest railway company) with a focus on retail, advertising, and logistics inside railway stations.
- **UOB:** UOB is one of the world's top banks, with 500 branches across 19 countries. It has a strong ASEAN presence and focuses on innovation and sustainable growth.
- **Enterprise Singapore:** Enterprise Singapore is the government agency championing enterprise development. The agency partners committed companies to build capabilities, innovate, and go global. It drives growth – empowering local businesses and shaping industries, anchoring Singapore as a trade and startup hub, and establishing trust in products through quality and standards.

What Are We Looking For?

We are looking for technology-driven solutions that can meaningfully reduce the reliance on manual labour across F&B and/or retail operations — especially in high-footfall or resource-constrained environments (e.g., small-format shops, mall kiosks, fast-casual eateries).

Solutions should be new in the local F&B and/or retail landscape, i.e. different from widely adopted solutions such as conventional self-checkout systems and/or mobile ordering. The solutions may be

digital, mechanical, robotic, or AI-based, and may target any part of the store operations, including (and not limited to):

- Order and payment processing
- Food preparation or portioning
- Queue and crowd management
- Store management and analytics

Solutions should consider:

- Ease of integration into existing F&B and/or retail environments
- Scalability across different store formats and sizes
- User experience for both operators and customers
- Operational safety and compliance
- Realistic ROI and adoption feasibility for businesses

Prototypes must be testable in Singapore, with the potential for expansion in Japan.

Possible Use Cases

1. **Autonomous F&B kitchen:**
   A cutting-edge autonomous kitchen integrating robotics and AI to transform food preparation. Smart systems and robotic stations handle core food preparation tasks, while outlet staff primarily focus on system monitoring and maintenance, enabling round-the-clock operations with minimal manpower.

2. **Heat map + Mobile POS**
   Using advanced heat mapping technology, retailers can track customer movement patterns in real-time, revealing high-traffic zones and browsing behaviours. Best-selling items are strategically positioned in 'hot zones'. Staff will transform into roaming sales consultants – processing payments right where customers make their purchase decisions through mobile POS.

What's In It For You

- Up to SGD65,000 of grant funding for the winner of this challenge (see Award Model)
- Be part of the August 2025 cohort of the Business Innovations Generator (BIG) incubation programme. Access to mentors, community, downtown co-working facilities and more.
- Access to locations and/or established businesses to testbed solution

Evaluation Criteria

Submissions will be reviewed by an evaluation panel composed of Stellar Lifestyle, SMU IIE, JRE Ventures, UOB, Enterprise Singapore.

Solution Fit (30%)	Relevance: To what extent does the proposed solution address the problem statement effectively?

Solution Readiness (30%)	<u>Maturity</u>: How ready is the proposed solution to go to market? <u>Scalability</u>: Is there any evidence to suggest the capacity to scale?
Solution Advantage (20%)	<u>Quality of Innovation</u>: Is the solution cost-effective and truly innovative? Does it use new technologies in the market, and can it generate new IP?
Management Team (20%)	<u>Business Traction</u>: Does the product have user and revenue traction? <u>Team Experience</u>: Do the team members possess strong scientific/technical backgrounds?

Award & Submission

- Funding is milestone-based and subject to agreements and due diligence.
- Finalists may need to complete grant forms and submit supporting documents.
- **Deadline: 30 June 2025, 2359 (SGT/GMT +8)**