



NEXT-GENERATION WASTE MANAGEMENT SYSTEM

GrinBean Hong Kong Limited

James Lam, Co-Founder



Why we founded GrinBean?



People often mix
recyclables



Manual separation
is tedious



ESG data gap

Market needs & Potential

- Easy & Efficient way of waste auditing
- Transparent waste auditing system
- Less labour intensive recyclables sorting
- Compact and less expensive device

> 8.62 million
sq. meters of grade A+ office in HK



Our products & services

Plug-and-Play IoT module



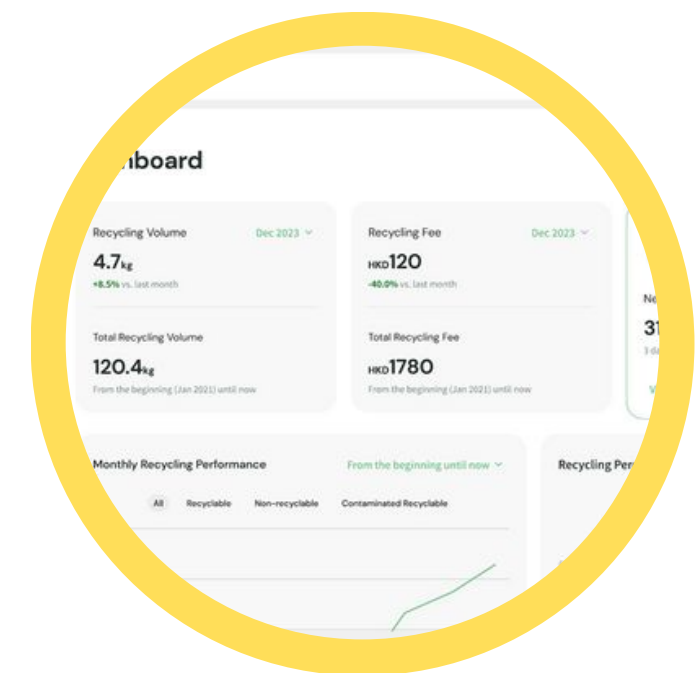
- Measure weight of waste and fill level of bins
- Integration with building management system (BMS)
- Real-time data transmitted via WiFi or LoRaWAN
- Customisable size

AI-powered sorting machine/conveyor



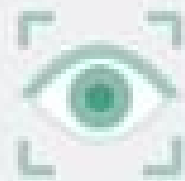
- Improve recycling accuracy
- On-edge Computer Vision
- Sensor fusion

Customizable Data dashboard



- Accurate recycling statistics for ESG reporting
- Real-time monitoring

IoT Bin Monitoring System



Empowering your bin

Types of recyclables can be distinguished by computer vision

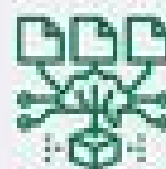


Equipped with Time-of-Flight (ToF) sensor to estimate volume and alert user when full



Waste management made easy

Record the amount of waste via weight scale



Predict "peak hour" for better cleaning route planning



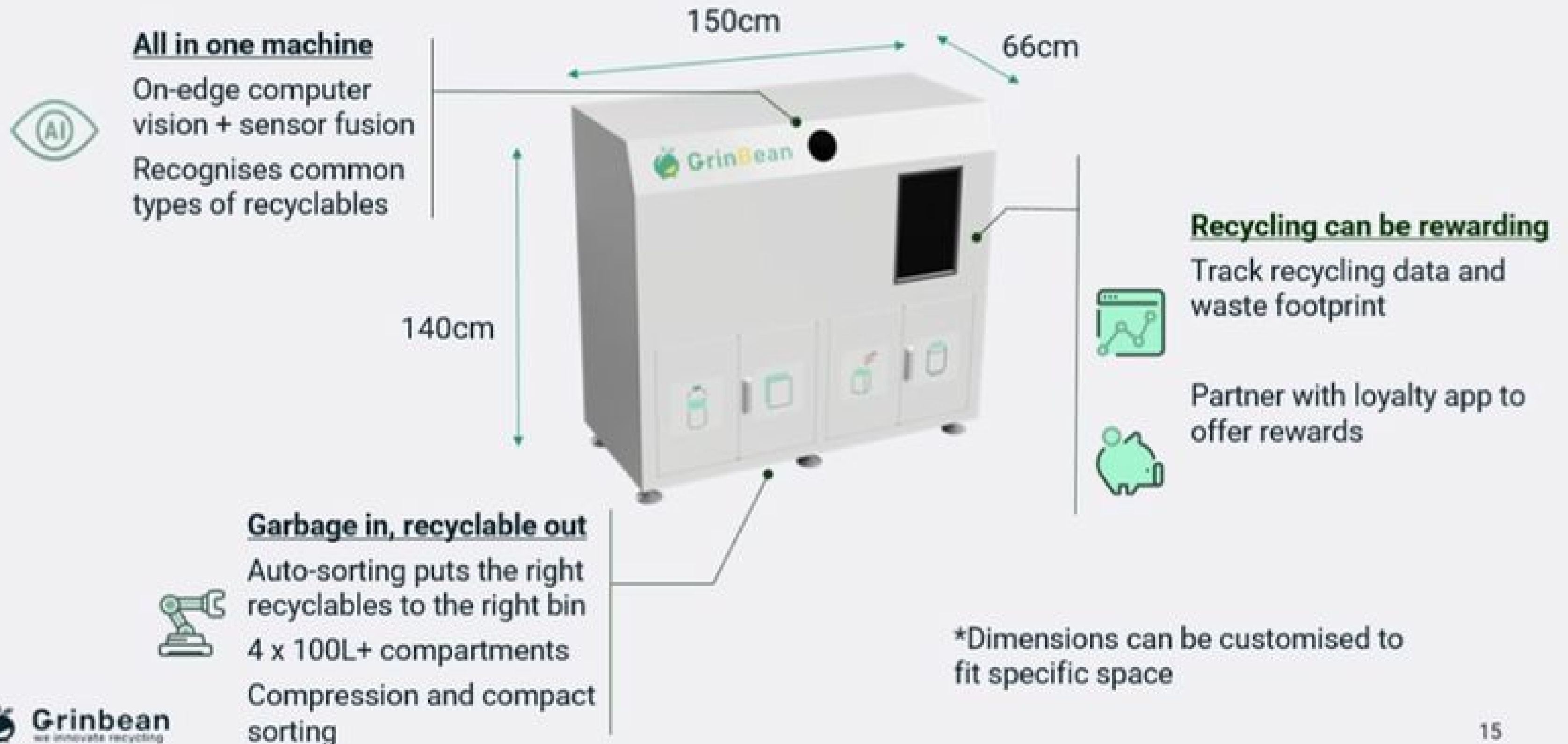
Plug and play

IoT device with API ready to be integrated into building management system (BMS)



Real-time data transmitted via WiFi, Bluetooth or LoRaWAN

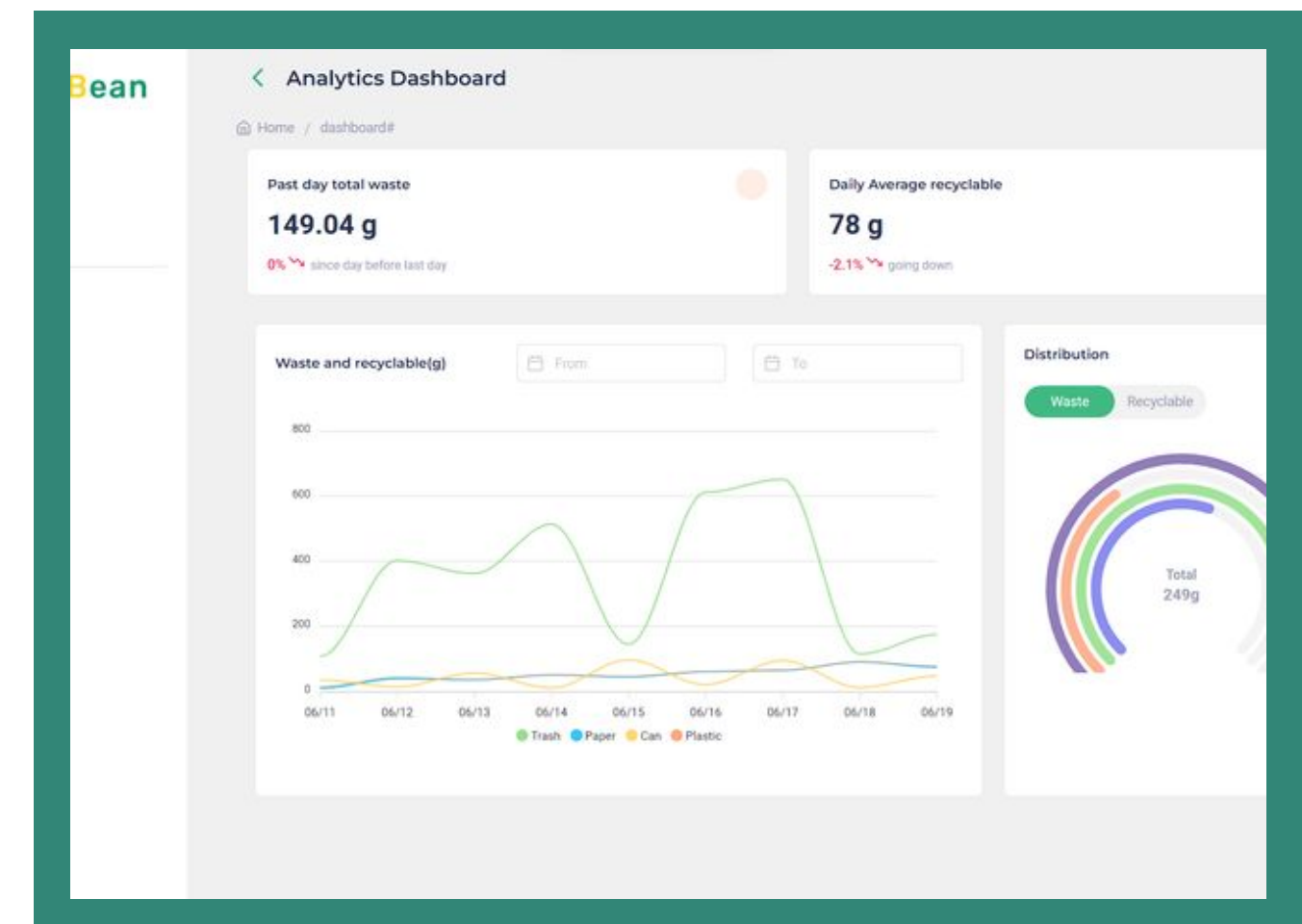
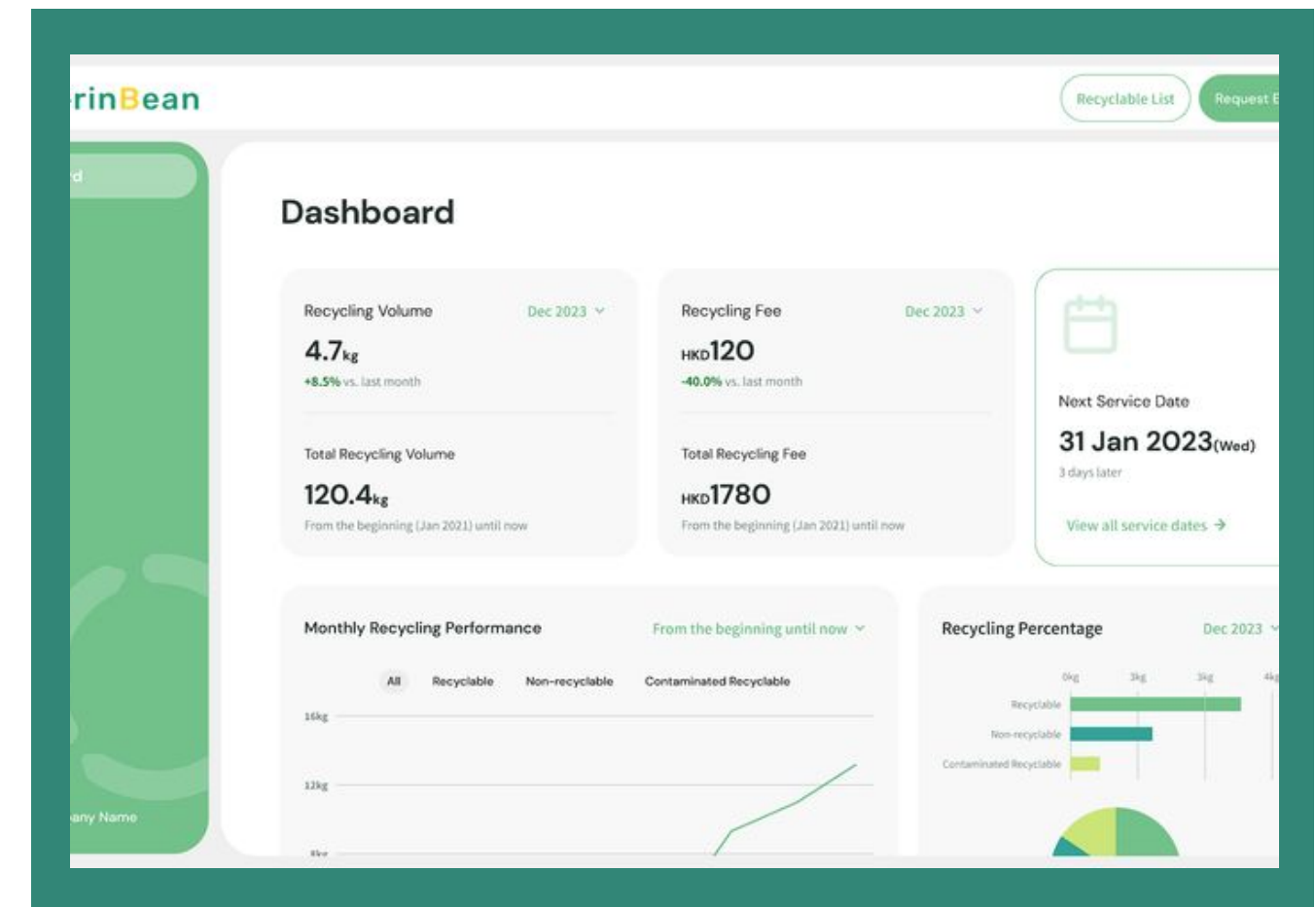
Our bin-novation: Auto-sorting Recycling Bin



Data Analytics

- IoT modules measuring **fill level** and **weight**
- Fill level and jamming alerts are sent via Telegram, Whatsapp or email
- Customized dashboard for real-time monitoring and report generation
- Data analytics for prediction of rush hour and recycling hotspots

Accurate recycling statistics for ESG reporting



Comprehensive waste management solution



Efficient sorting, reduced labour



Data driven decision-making



Automated waste data collection for ESG reporting
(Weight, types, amount)



Clean stream of recyclables to recyclers



Platinum

80+ points earned



Gold

60-79 points earned



Silver

50-59 points earned



Certified

40-49 points earned

Business Model

- Software & hardware monthly subscription
- Rebate from recyclers
- AI & data analytics services
- Sales of image data
- Recycling workshops
- STEM kits for schools

Current B2B deployment

Office buildings
Hospitals
Schools
Housing Estates

10+
Installations



Successful cases



Deployment of bin monitoring system at Grade A office building



Deployments of auto-sorting machine at hospitals (SERCO)



Deployments of auto-sorting machine at Administrative building (SERCO)



Deployments of auto-sorting machine at schools



Deployments of waste management machine at housing estates



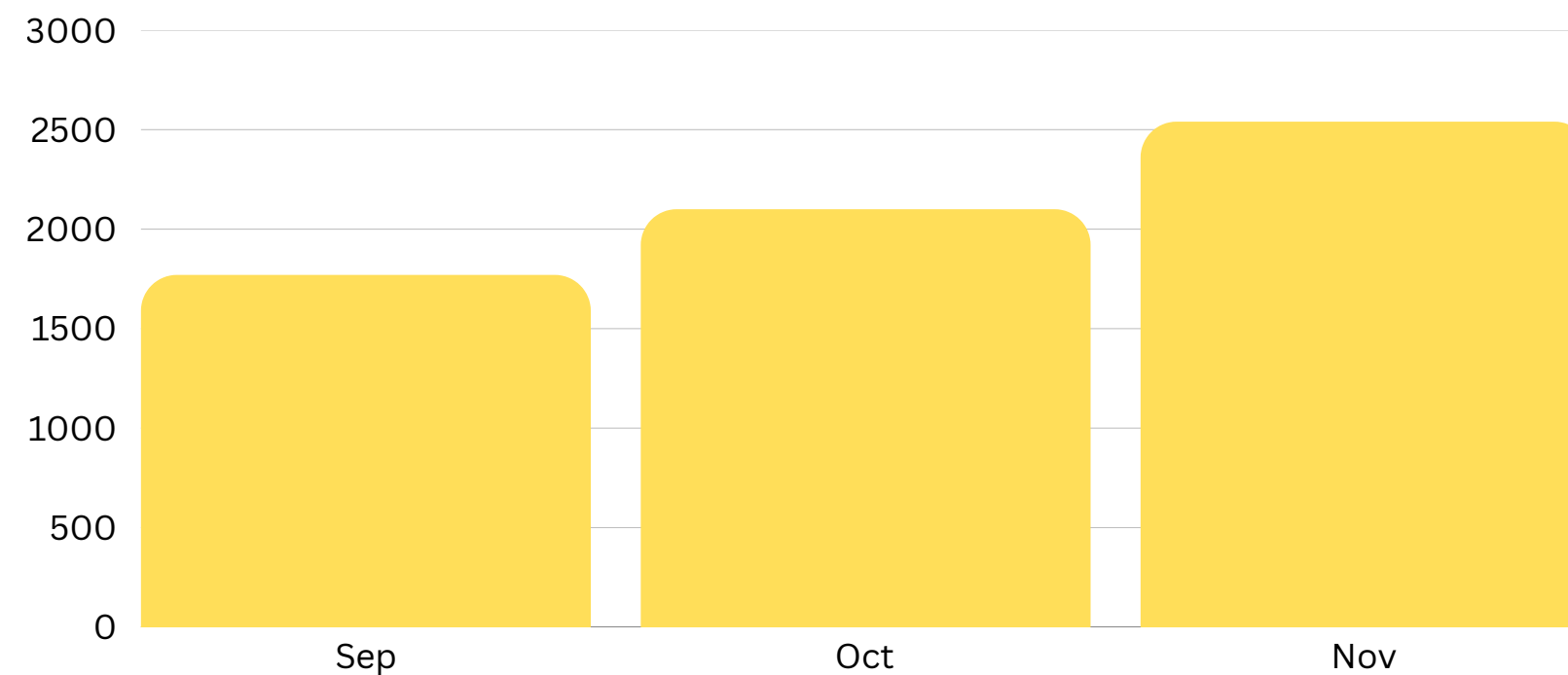
Deployment of bin monitoring system at HKSTP

Prince of Wales Hospital

- 3 months of deployment
- Recycling rate Increased by

~18%

Amount of recyclable (kg)



Endorsed by





GrinBean

**Brings Waste Management to
the Next Level**

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