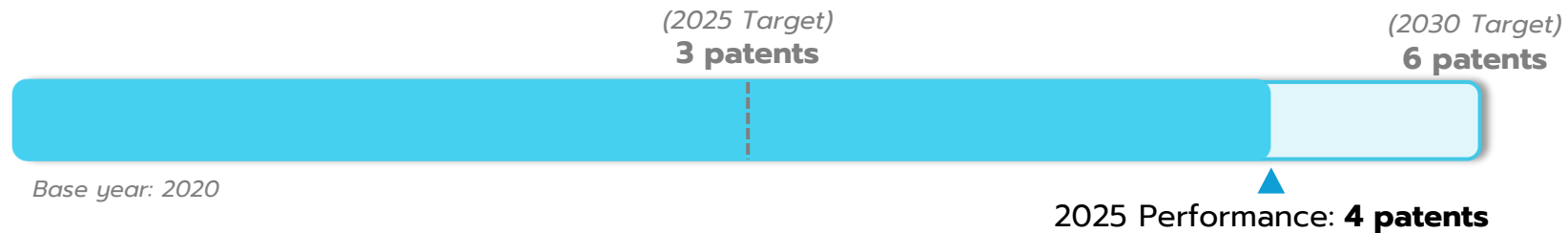


INNOVATION

Target and Performance

Long term target by 2030:

Register **6 patents or petty patents**



2025 Target:

4 patents or petty patents will be registered in 2025.

2025 Performance:



Of Target

4 of patent or petty patent are pending patent numbers.

5,837 of employees are innovators.

2 innovation projects contributed cost-saving **172 million Baht.**
2 innovation projects contributed sale increased **741 million Baht**

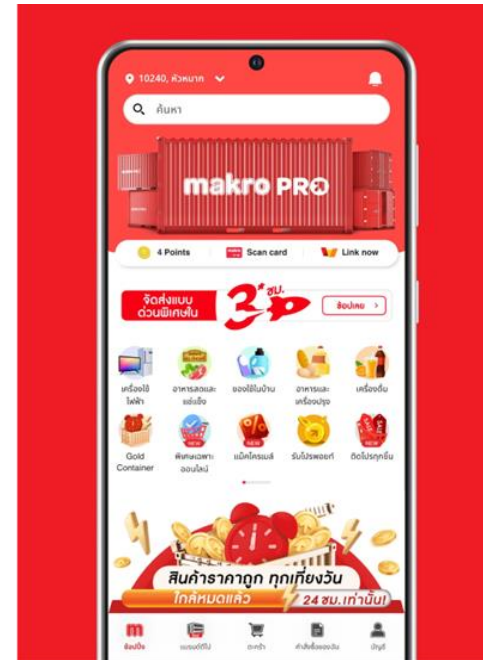
Indicator

Indicator	2020	2021	2022		2023		2024		2025	
			Makro	Lotus's	Makro	Lotus's	Makro	Lotus's	Makro	Lotus's
Innovators (person)	560	1,118	1,189	294	1,150	111	512	147	806	184
Innovations participate CP All and CPG Innovation Contest (No. of Project)	20	11	13	8	6	5	5	2	28	5
Award-winning innovations from CP All and CPG Contest (No. of Project)	10	6	11	6	6	2	5	1	4	0
Business impact (Million Baht)	315.04	3,975	3,882	1,507	1,369	1,208	20,483	29,250	913	0

Example of Patented Innovation



VIP Cool Box



Hybrid lexical and semantic search
For app searches in Makro pro

“Smart Cool Box” Project

The issue of accumulated waste from foam boxes that cannot be repaired has resulted in a disposal rate of up to 20% per year, as well as the loss of storage space. In response, the Company developed the Smart Cool Box, an innovation capable of maintaining a stable temperature for more than 24 hours and supporting multi-temperature delivery within a single box.

This significantly helps reduce food waste and optimize transportation space. This innovation also helps eliminate plastic waste from single-use foam boxes, which have a damage rate of up to 20% per year, by replacing them with durable packaging that can be repaired in separate parts through a modular design. This enables resources to be circulated and utilized to their maximum value.

In addition to being environmentally friendly, this innovation also emphasizes ergonomics. The carrying straps and box structure are designed to reduce physical strain and minimize workplace accidents, thereby improving employees' quality of life while establishing a sustainable and resource-efficient standard for product delivery.



2025 Result:

- **38** tons of foam boxes diverted from landfill (2kg x 19,000 units)
- Reduced electricity consumption by **43,200** kWh per year (160 branches x 270 kWh)
- Avoided greenhouse gas emissions of **20** tCO₂e per year
- Cost savings of THB **170** million

"Automated Ordering System to Improve On-Shelf Availability"

To address the issue of insufficient on-shelf inventory that leads to missed sales opportunities and unnecessary storage costs, the Company developed an Automated Ordering System. This system leverages Artificial Intelligence (AI) to accurately forecast sales and optimize inventory planning. By streamlining the ordering and inventory management process, the system reduces planning complexity, minimizes imbalances in stock levels, and enhances the Company's ability to respond promptly and consistently to customer demand. Through efficient resource utilization, the initiative has generated over 1 billion Baht in incremental sales annually compared to 2023.



2025 Result:

- **97%** better On-Shelf Availability Rate, incremental annual profit of **83,200,000 Baht** compared to 2023
- Over **1,280 million Baht** reduction in missed sales opportunities
- **138.9%** increased in Return on Investment (ROI)

"E2E Last-mile Intelligence Management System "

The Company has developed the E2E Operation Visibility Dashboard, an automated end-to-end delivery management analytics tool. Serving as a centralized data platform, the dashboard enables branches to manage last-mile delivery operations more efficiently by minimizing delays and reducing process errors. It provides real-time insights into delivery statuses and pending orders, enhancing the Company's capability to handle increased order volumes swiftly and accurately. This ensures timely responses to customer demands, strengthens the overall purchasing experience, and supports the sustainable growth of the online business channel.



2025 Result:

- **30,210 hour/year** in reduced working hours, equivalent to **1,678,333 Baht/year**
- Over **5.7 million Baht/year** in total cost reduction
- **18,532,000,000 Baht** increase in sales compared to 2022