CMMI® Institute

Case Study

CMMI® Institute Powers Dagang Net's Expansion While Improving Quality, Standardization and On-Time Performance

The Business Need

From logistics and manufacturing to retail and government, Dagang Net serves a diverse range of organizations, helping them fully utilize their eCommerce capabilities and helping customers run their businesses faster and more accurately. More than 100 million electronic transactions are completed each year with Dagang Net's proven infrastructure system.

Dagang Net recently experienced rapid growth and managed an expanding portfolio of projects. They encountered several operational challenges, highlighting the need for a comprehensive capability performance and process improvement assessment. These challenges, particularly in project management and software development, drove the company's commitment to improving efficiency, standardizing processes, and ensuring consistent, high-quality project outcomes. These challenges included:

Dagang Net's rapid eCommerce growth required an actionable and comprehensive process assessment and more complex standardized processes.

- Missed Project Deadlines: Some projects ran late due to inefficient planning and lack of resource management, leading to delays in software releases and disappointed clients

- Quality: Software quality was inconsistent, with frequent defects, bugs, and rework required. This led to customer dissatisfaction and increased costs for quality control and fixes

- Standardizing Processes: Teams used different methods and processes for project management and development, resulting in inefficiencies, miscommunication, and inconsistent outcomes

- Difficulty Scaling Processes: As the company grew, the existing project management and development processes were not scalable, making it difficult to manage larger or more complex projects efficiently

- Improving Customer Satisfaction

Dagang Net Technologies Background

Dagang Net Technologies Sdn Bhd ("Dagang Net") is a leading provider of award-winning eServices for Trade Facilitation. The company, established in 1989, is the operator of Malaysia's National Single Window ("NSW") for Trade Facilitation, which facilitates electronic Customs-related transactions and duty payments, and electronic document transfer between members of its trading community.

The company is a wholly owned subsidiary of Dagang NeXchange Berhad ("DNeX"), which is listed on the Main Market of Bursa Malaysia. For more information, go to **dagangnet.com.**

Dagang Net's main objectives were:

- Process Standardization: Ensuring all development processes are documented, repeatable, and consistently implemented for projects, ensuring predictable and reliable outcomes
- Delivering projects on time, within scope, and meeting customer requirements
- Meeting or exceeding customer expectations by delivering high-quality products aligned with industry standards

The capabilities targeted for this appraisal were:

- Ensure Quality
- Design and Develop Products
- Planning and Management
- Maintain Habit and Persistence
- Improve Performance

"Dagang Net proudly embraces CMMI Version 3.0, reflecting our drive for process optimization and continuous improvement. This certification enhances our development capabilities, fosters innovation, and ensures that we consistently deliver high-quality, reliable solutions that meet global standards."

Jasbendarjit Kaur A/P Mejor Singh, Chief Technology Officer, Dagang Net Technologies
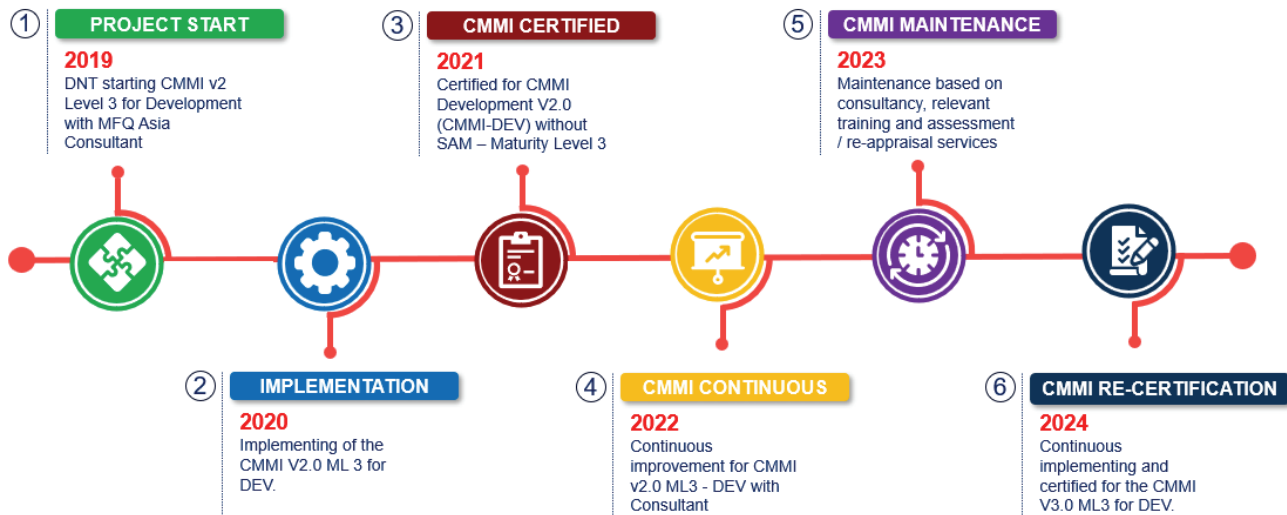
The Solution

Dagang Net's CMMI appraisal process identified specific opportunities for improvement:

CMMI Institute helped Dagang Net to enhance process standardization, quality management practices, project planning, and increase customer satisfaction.
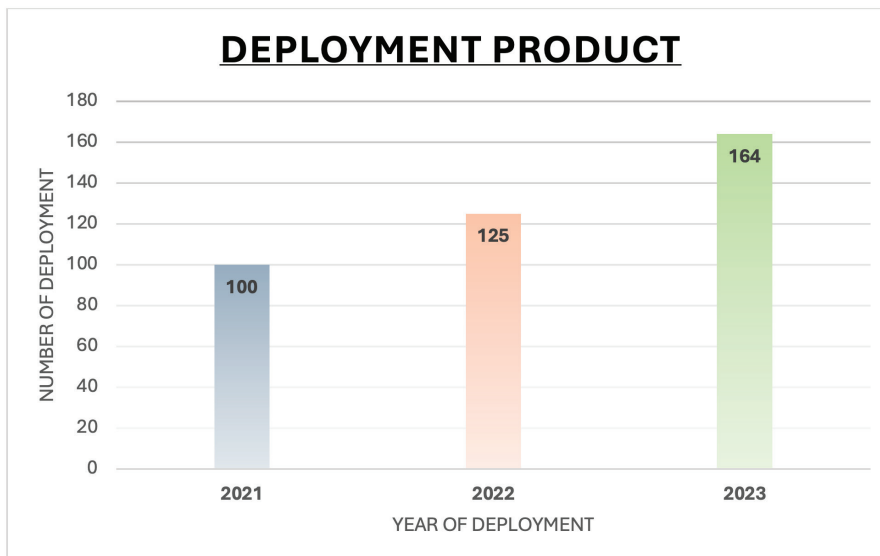
- Governance (GOV): Enhanced process standardization ensuring that best practices were consistently applied for all projects. This standardization improved overall process efficiency and quality.
- Process Quality Assurance (PQA) and Causal Analysis and Resolution (CAR): Improved quality and performance by providing a framework for integrating quality management practices into the development process. This included implementing rigorous quality assurance and control measures.
- Project Planning (PP), Project Monitoring and Control (PMC), and Estimating (EST): Enhanced project predictability by increasing the accuracy of project planning and forecasting and better managing timelines and budgets.
- Requirements Development and Management (RD) and Decision Analysis and Resolution (DAR): Implementing CMMI helped Dagang Net address issues that impacted customer satisfaction by standardizing processes, reducing defects, and ensuring consistent quality. By focusing on continuous improvement and process discipline, they can better meet customer expectations, deliver on time, and enhance overall client trust and satisfaction with our solutions.

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Dagang Net Maturity Level Milestones

① PROJECT START
2019
DNT starting CMMI v2 Level 3 for Development with MFQ Asia Consultant

③ CMMI CERTIFIED
2021
Certified for CMMI Development V2.0 (CMMI-DEV) without SAM – Maturity Level 3

⑤ CMMI MAINTENANCE
2023
Maintenance based on consultancy, relevant training and assessment / re-appraisal services

② IMPLEMENTATION
2020
Implementing of the CMMI V2.0 ML 3 for DEV.

④ CMMI CONTINUOUS
2022
Continuous improvement for CMMI v2.0 ML3 - DEV with Consultant

⑥ CMMI RE-CERTIFICATION
2024
Continuous implementing and certified for the CMMI V3.0 ML3 for DEV.

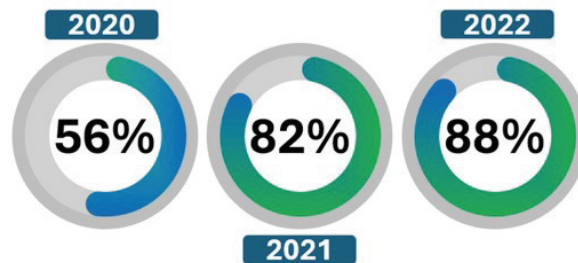# Key Performance Goals Achieved

By adopting CMMI, Dagang Net enhanced the success of product deployment through rigorous process improvement and analysis. The success of product deployment increased dramatically from 2021 to 2023. The CMMI framework enables better planning, execution, and quality control, ensuring that every product is delivered efficiently, meets client needs, and aligns with industry standards for excellence and reliability.

DEPLOYMENT PRODUCT

Year of Deployment	Number of Deployment
2021	100
2022	125
2023	164

NUMBER OF DEPLOYMENT / YEAR OF DEPLOYMENT

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Dagang Net's Customer Satisfaction ("CSAT") scores demonstrated significant improvement as well. In 2020, their CSAT score stood at 56%. After the adoption of CMMI, the score rose to 82% in 2021 and then climbed to 88% in 2022.

2020 56% **2021** 82% **2022** 88%

Lessons Learned

Dagang Net believes that the CMMI appraisal process and Performance Report helped the entire organization become more confident and provided them with a unique competitive advantage in a crowded and ultra-competitive marketplace.

With the wide variety of projects, CMMI helps the organization manage and document process adaptations effectively, leading to more efficient, relevant, and compliant project execution. CMMI emphasizes the importance of processing documentation, without overburdening teams with excessive paperwork. This process strikes a balance between maintaining necessary records and allowing flexibility for innovation and efficiency. This adherence to standardized processes results in more consistent and predictable project results, thus building greater trust with clients and stakeholders.

"By adopting CMMI, we've seen a significant improvement in project performance. Streamlined processes, better risk management, and enhanced product quality have led to more efficient deployments and higher client satisfaction, ultimately driving our success over the past few years."

Mohd Haizul Anuar Bin Md Rais,
Head of Project Management Office,
Dagang Net Technologies

About CMMI® Institute

CMMI® Institute is trusted by thousands of high-performing companies worldwide to deliver guidance to build and sustain processes that drive business value and innovation. CMMI (Capability Maturity Model Integration) is a globally recognized performance improvement framework that helps organizations elevate and benchmark their capabilities to deliver high-quality products and services. Backed by decades of proven results, CMMI empowers organizations across industries to achieve measurable outcomes in quality, productivity, and efficiency. Designed with an open architecture, CMMI adapts to emerging challenges and industry-specific needs—enabling the development of tailored extensions like the Medical Device Discovery Appraisal Program (MDDAP), which supports FDA's Case for Quality initiative. To learn more about CMMI, visit **cmmiinstitute.com**.

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