



**TMEiC**  
*We drive industry*



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**From Vision to Data:  
The Evolution of  
Automation in Ports  
and Terminals**

April 2026

[WWW.TMEIC.COM](http://WWW.TMEIC.COM)



# Who we are?



## Cement

Drive and automation systems built to withstand high heat, dust, and heavy loads in cement production.

[Learn More](#)



## Metals

The leading force in ferrous and nonferrous metals production

[Learn More](#)



## Mining

High-torque motors, drives, and power factor correction systems for hoists, mills, conveyors, and excavators.

[Learn More](#)



## Oil & Gas

Reliable motor and drive systems engineered for harsh environments and critical pumping, compression, and refining.

[Learn More](#)



## Paper

Integrated systems for moisture-resistant, continuous operation in paper and pulp production lines.

[Learn More](#)



## Ports & Terminals

Crane automation, yard control, and electrification solutions for faster, safer, and cleaner port operations.

[Learn More](#)



## Renewable Energy

Scalable inverter and energy storage systems for solar, hybrid and grid-tied applications

[Learn More](#)



## Rubber and Plastics

Medium-voltage drives and motors optimized for mixing, extrusion, and pelletizing processes.

[Learn More](#)



# Global leader in terminal automation

20

Years Leading  
Ports  
Automation



+50

Terminal  
Projects  
Worldwide



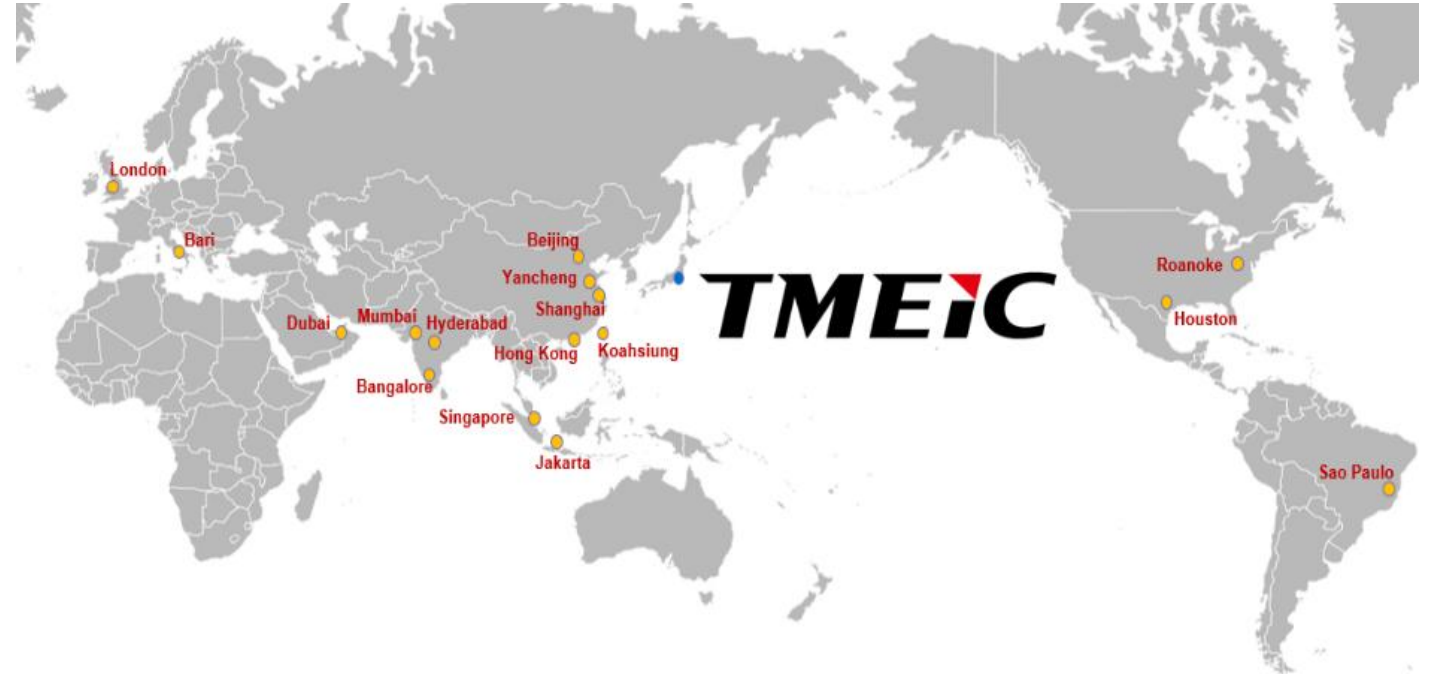
Delivering measurable gains in safety,  
efficiency, and performance:



Safety  
Improvement



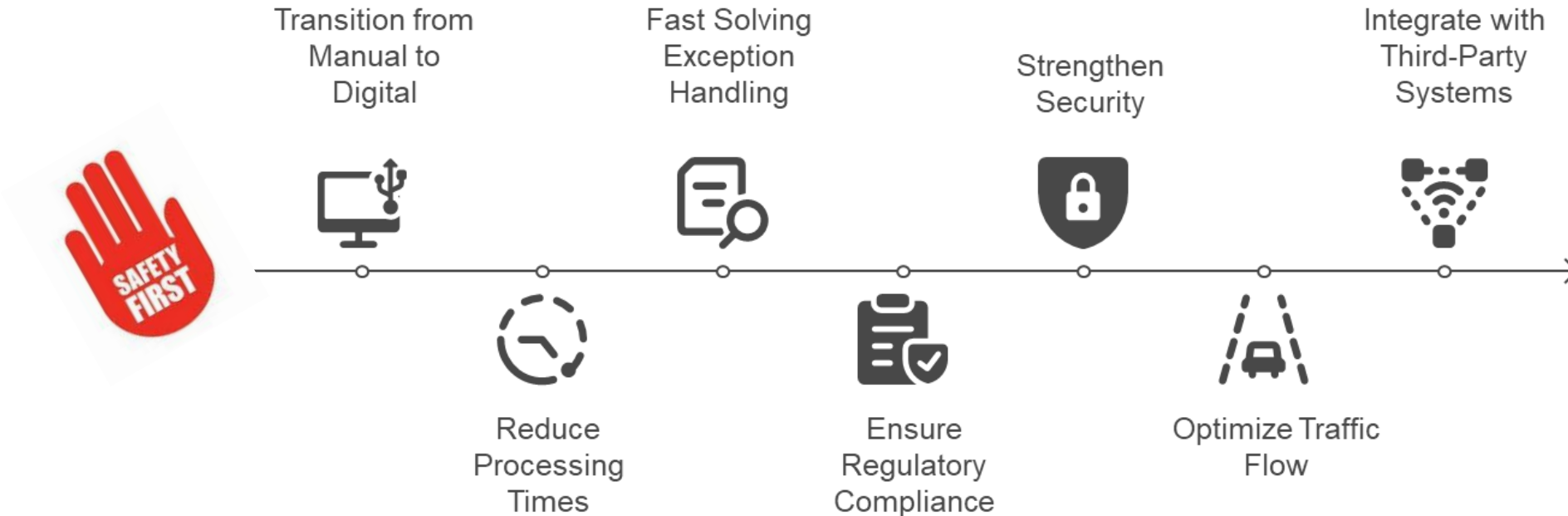
Cost  
Efficiency



# Smart Vision value

Most terminals start looking at OCR solutions to improve safety. What Smart Vision does is go much further: it creates a fully digital and secure identification layer across the entire terminal.

**The result is safer operations, faster decisions, better traffic management and complete operational visibility.**



# How We Deliver It

Smart Vision is not a single product – it is a complete delivery model powered by TMEIC's ecosystem



Engineering

Designing advanced automation solutions that boost performance



Process Optimization

Digitalizing terminal processes for maximum efficiency



Customization

Tailored solutions for each customer's unique needs.



Turnkey Projects

Complete, ready-to-deploy automation from design to go-live.



Modularity & Scalability

Ensuring projects and systems can grow in capacity and functionality with latest technology.

# Full Terminal Coverage, One Ecosystem

Each module plays a role – but their true value comes from working together under one unified vision.



## Crane – Smart Vision

- > Real-time registration of trucks and containers (in/out)
- > Eliminates manual entry risks
- > Validates seals and codes automatically



- > Real-time tracking of RTG/RMG crane moves
- > Integrated with TOS for smarter yard planning
- > Detects discrepancies with higher capacity
- > Full traceability

## Rail – Smart Vision

- > Automates container registration
- Minimizes manual work
- > Detects discrepancies with TOS manifest
- > Full traceability across intermodal connections



# From Recognition to Understanding

These recognitions apply seamlessly across all operational areas – providing unified visibility and accuracy, everywhere



**LPR System**  
Captures vehicles registration number



**DMG Recognition**  
Detects container's structural damage



**TARE Recognition**  
Container's net weight



**CCR**  
Container's code recognition



**CDD**  
Container's door direction



**Max Gross**  
Container's maximum load



**ISO code**  
Recognizes containers size and codes



**Wagon Recognition**  
Recognizes container codes on railcars



**DMG Measurement**  
Detects and measures container's damage



**IMO code**  
Identifies hazardous pollutants



**GENSET**  
Recognizes freezer units on containers



**Heavy Load Identificatory**  
Recognizes heavy loads containers



**Seal Recognition**  
Verifies integrity of containers seal



**CCHR**  
Chassis code identification (for internal trucks)



**UN Code Identificatory**  
Recognizes dangerous plates

# Artificial Intelligence: The Heart of Our Next Generation Systems

**We're taking automation  
beyond recognition –  
towards decision-making.**

Our AI-driven approach transforms every image, event, and alert into actionable intelligence.

- Proprietary AI solutions for terminal automation
- Deep learning for damage and OCR optimization
- Predictive analytics for proactive maintenance
- Scalable, future-ready architecture



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# Beyond Technology, a Long-Term Partner

At TMEiC, we go beyond technology – **we partner with terminals** to evolve into smarter, safer and more efficient operations.



Not just projects, but a **complete ecosystem.**



**Flexible solutions** adapt to each terminal.



**Integrated Automation, Digitalization & AI.**

**Scalable growth** aligned with customers needs.





# TMEiC

From Design to Operation — TMEiC is With You Every Step of the Way.

Thank you