TMT
TRANS MISR
TERMINAL

EGMPT
EGYPTIAN GROUP FOR
MULTI PURPOSE TERMINALS

CMA TERMINALS

"Clean technologies and energy efficiency good practices in container terminals -Building a sustainable future for global trade"

A Strong Alliance

- The **largest** multipurpose terminal dedicated to Container, General Cargo and **RoRo** activities located in the port of **Alexandria**, Egypt.

- TMT benefits from a strong **alliance** between two port operators:
  - **Egyptian Group for Multipurpose Terminals (EGMPT)**, the commercial arm of the Egyptian Ministry of Transportation to design, build and operate Multipurpose Terminals in Egypt
  - **CMA Terminals (CMAT)**, an international container terminal operator fully owned by **CMA TERMINALS HOLDING** (Part of CMA CGM Group).

Sustainable Infrastructure Development

Sustainable infrastructure development in Container Terminals involves investing in green technologies like Cold Ironing, renewable energy generation, Additionally, on-site renewable energy generation through photovoltaic solar panels and upgrading existing equipment and facilities. This includes retrofitting cranes and equipment with energy-efficient components and optimizing yard layouts. TMT being a new ambitious project in Egypt is sustainable "by design" as developed with last advanced energy efficiency solutions.

TMT is prioritizing sustainability through best practices

As part of our commitment to sustainable practices, we have implemented several initiatives to minimize our environmental impact and **promote a greener future**. This presentation will highlight some of the key sustainable practices at TMT, including:

- Accommodation of Ultra Large Container Ships (ULCS)
- High Productivity and Sustainability
- Focusing on Sustainability: TMT is the *1st* Terminal in Egypt to invest in Electric RTGs (E-RTG)
- Optimizing Operations: Efficiency in Focus
- Railway Connected
- Water Conservation
- Cold Ironing Optimized with High Efficiency Conversion system
- Paperless Terminal Operations
- Cold Ironing Project
- OCR Gates

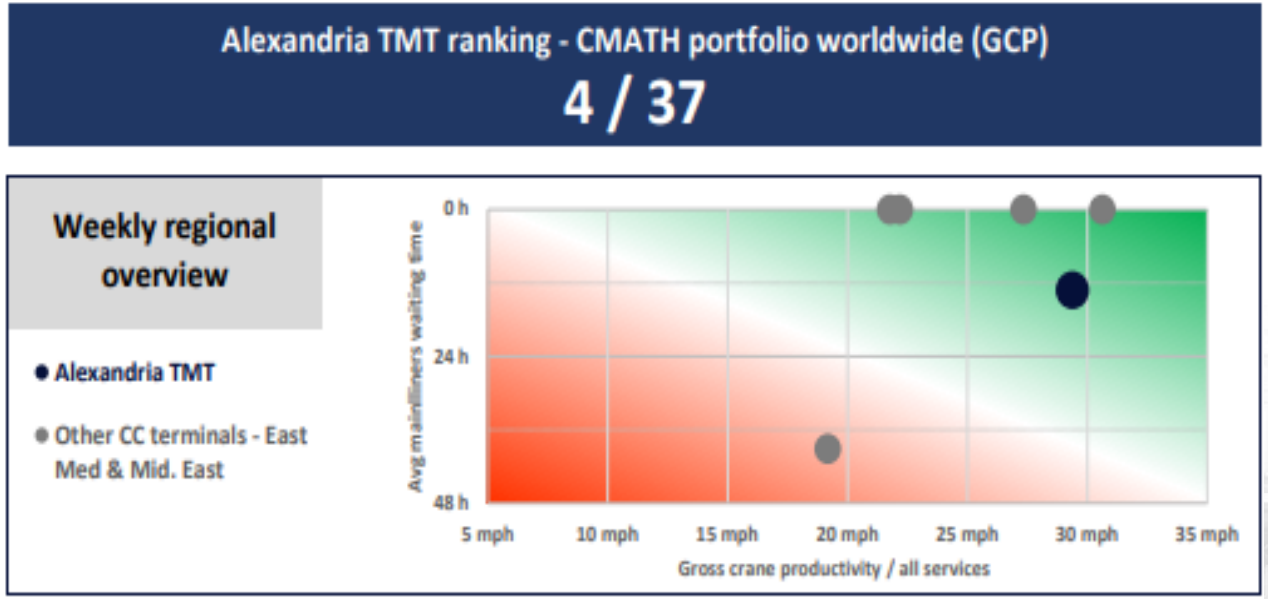
Accommodation of Ultra Large Container Ships (ULCS)

- Quay depth and ship-to-shore (STS) specifications play a crucial role in accommodating larger vessels at Trans Misr Terminal (TMT).
  - 17.5 m depth, the deepest in Alexandria port
  - Biggest STS in Alexandria port which can accommodate the ULCS.
- Successfully handled the largest vessel in Alexandria port's history, CMA CGM T. ROOSEVELT, with a 15k TEU capacity and arrival draft of 16m.
- TMT supports Economies of scale in the maritime shipping through handling bigger vessels which results in:
  - **Economic Sustainability:** Reduced cost per container: As vessel size increases, the cost per container decreases. Larger ships can carry more containers, spreading fixed costs (such as crew, fuel, and maintenance) over a greater cargo volume, and resulting in lower greenhouse gas emissions per container transported.
  - **Environmental Sustainability:** through Efficient fuel consumption where bigger vessels are more fuel-efficient per TEU, contributing to cost savings and environmental benefits.

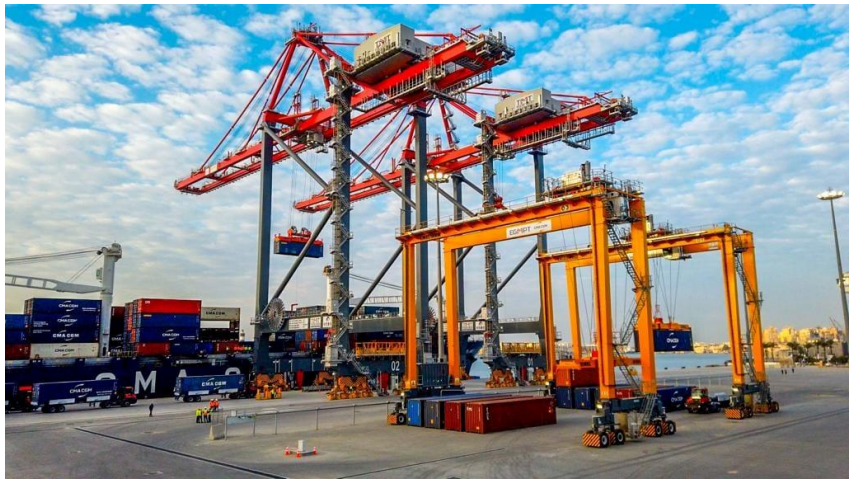
High Productivity and Sustainability

High Productivity has a positive impact on sustainability:

- ***Resource Efficiency:***
  - ✓ *It leads to efficient use of resources which contributes to sustainability by minimizing the environmental footprint of terminal operations.*
- ***Reduced Emissions:***
  - ✓ *Through minimizing the vessel turnaround times in the Port.*
- ***Economic Viability:***
  - ✓ *It directly affects the Terminal's Profitability.*

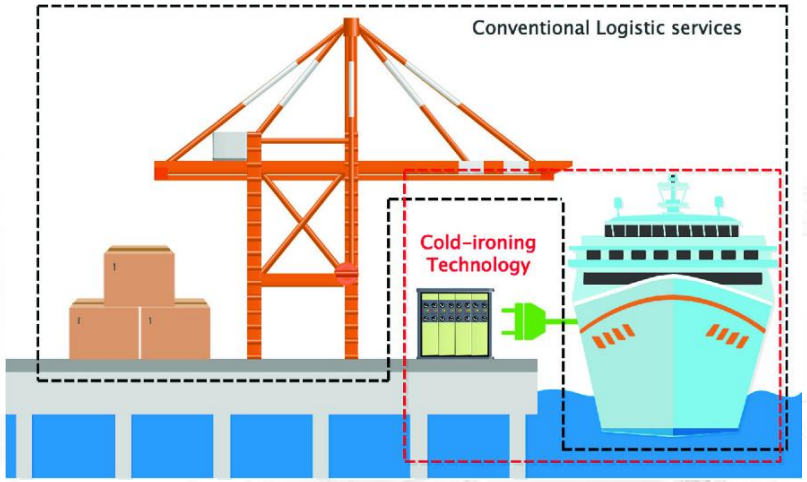


Focusing on Sustainability



12 E-RTGs

Electric Forklifts



Cold Ironing

1st Terminal in Egypt to invest in Electric RTGs

Addressing Climate Change

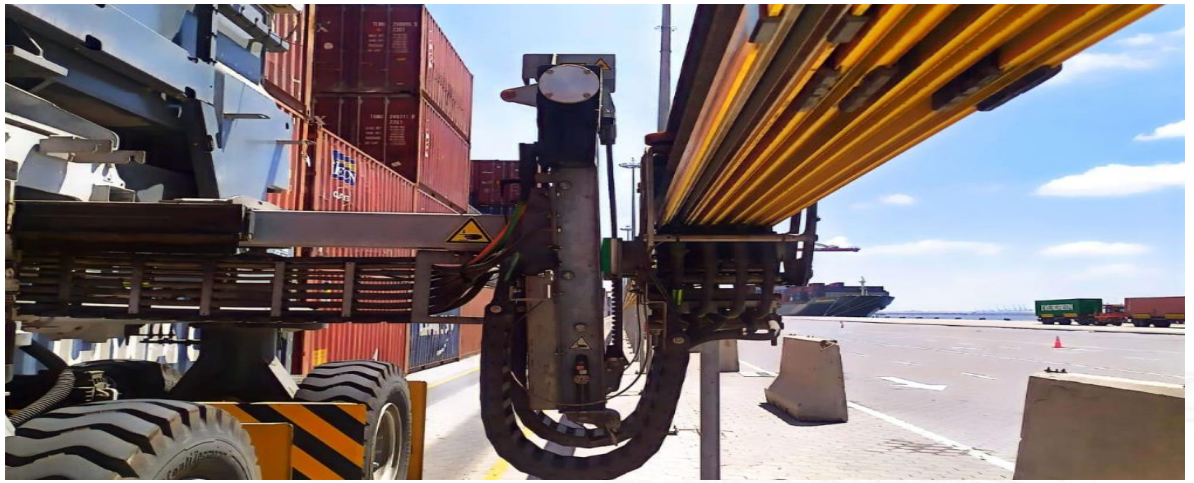
TMT actively combats the greenhouse effect.

Eco-Friendly Technology

Utilizes ERTGs and busbars to reduce gas usage and CO2 emissions.

Sustainable Future

Committed to minimizing environmental impact for a greener tomorrow.

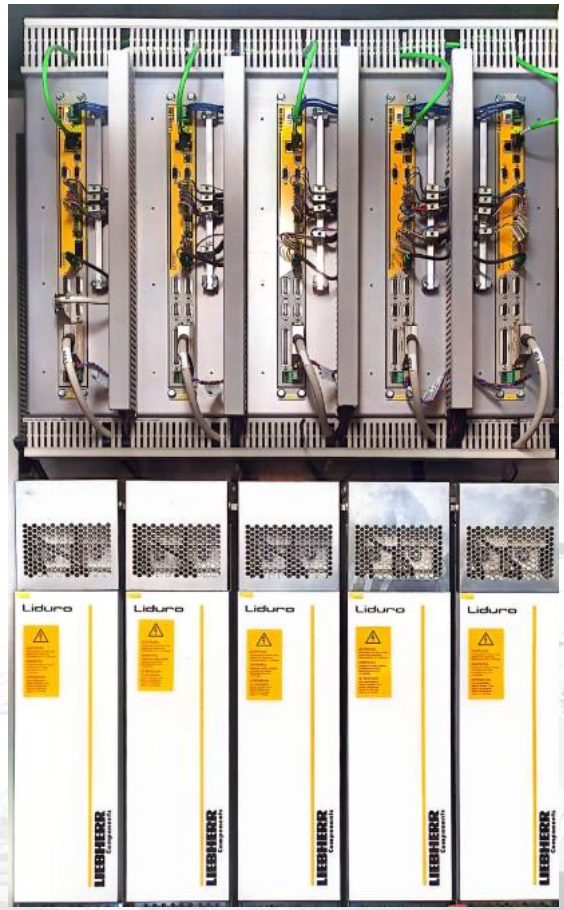


Energy efficiency on E-RTG

- TMT's E-RTG not only uses Bus Bar connection, but also state of the art power electronics water cooled VFD drives for all motions:

Higher Efficiency

•Water-cooled VFDs can achieve higher overall efficiency than air-cooled VFDs.
•This is because water is a much more effective coolant than air.
•Water can absorb more heat and transfer it away from the VFD more efficiently.
•As a result, water-cooled VFDs can operate at cooler temperatures, which reduce s energy losses.



Liebherr Liduro VFD on TMT E-RTG

Optimizing Operations: Efficiency in Focus

- TMT Committed to Operational Excellence

Proactive Maintenance as a sustainable practice

Regular PM for optimal performance of all Terminal equipment.

Fuel Efficiency

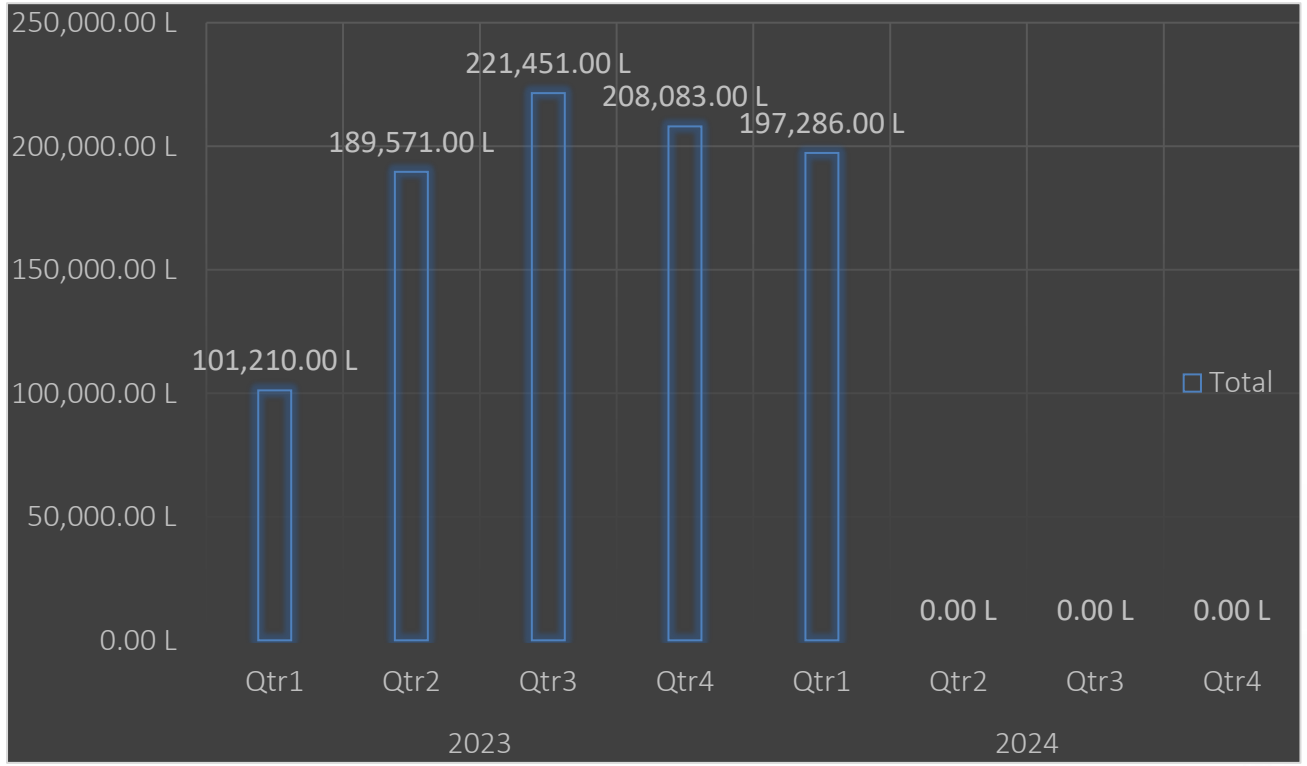
Constantly monitoring fuel consumpt ion to prevent leakage and spill and minimize harmful emissions.

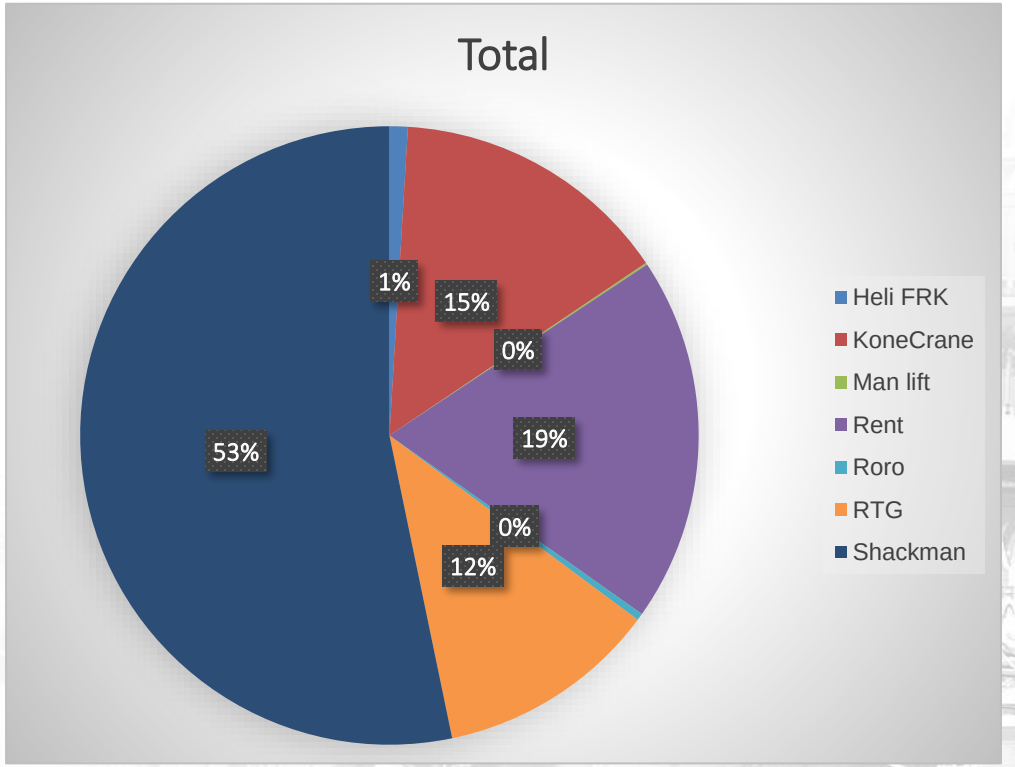
Environmental Consciousness

Continuously striving for cleaner and more sustainable operations.

Optimizing Operations: Fuel Consumption Records

TMT is committed to keep the environment clean, taking care of a precise track of records of the fuel consumption. (Fuel consumption figures since 2023 till 2024)

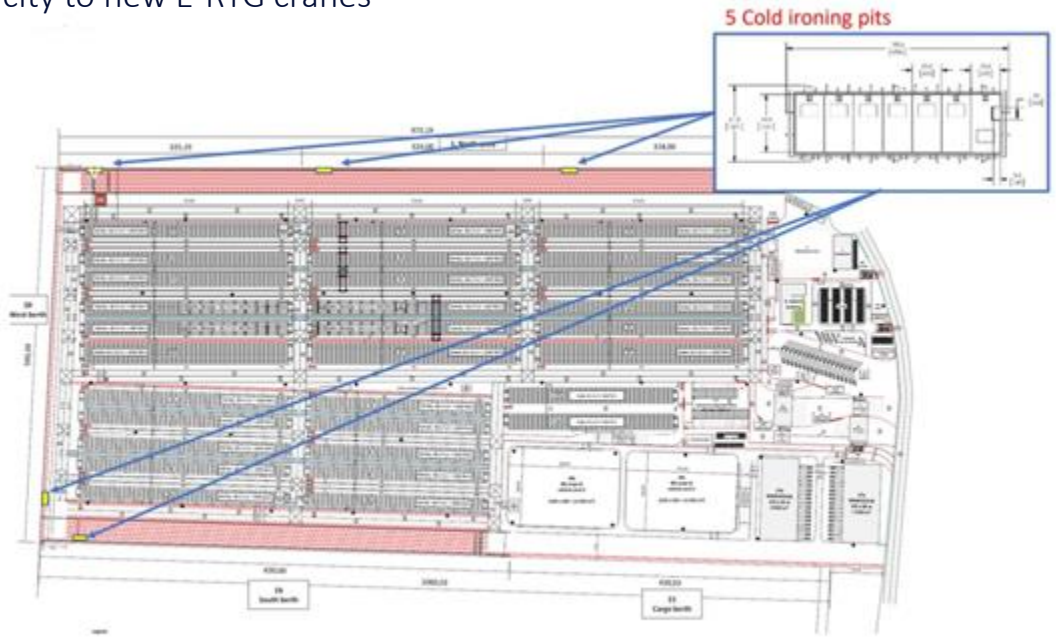




Future Vision: Embracing Innovation

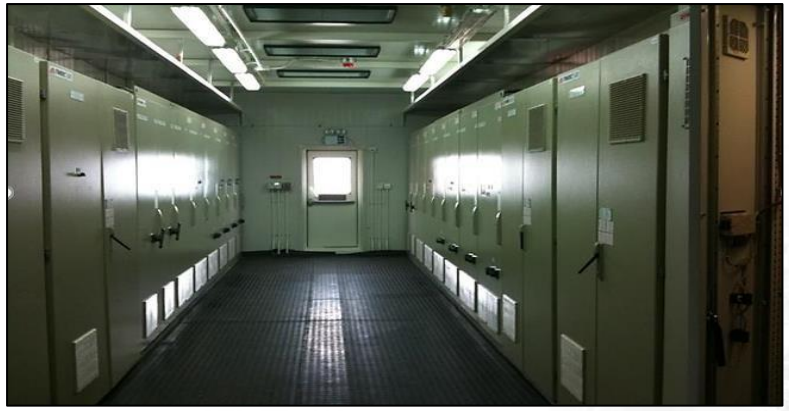
- TMT: Shaping the Future of Maritime Logistics

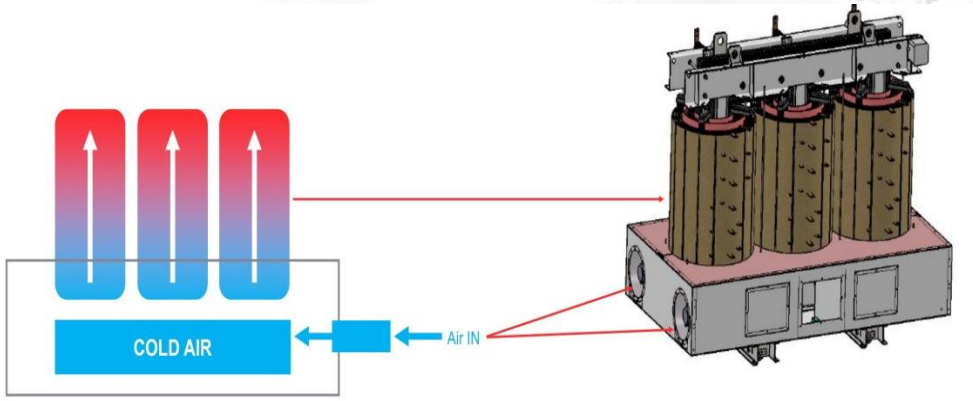
- **Cold Ironing Technology:** Transitioning towards electrically powered operations, reducing reliance on fuel and emissions.
- **Bus Bar for E-RTG** drastically reduces pollution and fuel consumption.
- Phase 2 New Busbar Area Integration: Utilizing a busbar system to efficiently distribute electricity to new E-RTG cranes



Optimized High Efficiency Power Conversion system

“Centralized” state-of-the-art frequency conversion solution for delivering 50Hz and 60 Hz able to supply a clean and stable power flow to feed one or more vessels efficiently reducing power losses.





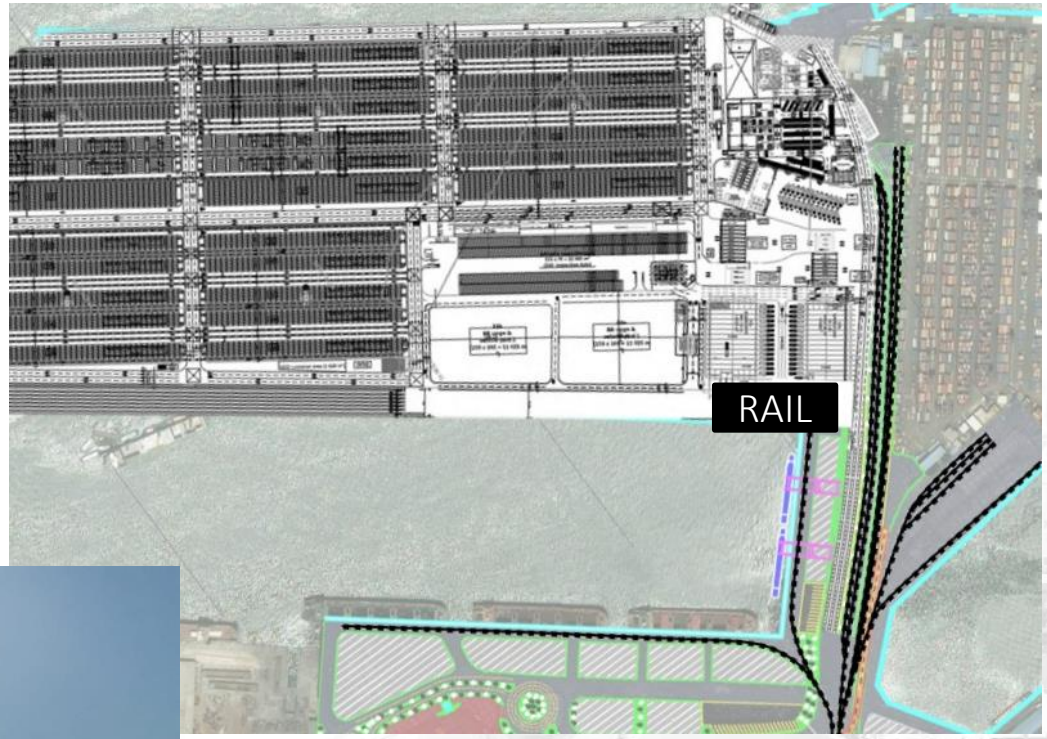
Water Conservation: A Shared Responsibility

Protecting Our Precious Water Resources

- Current Usage: Approximately 2,000 cubic metres of water are used monthly by the terminal because of rationalised utilisation.
- TMT uses a software to continuously monitor the water consumption and pr omptly identify any leakage on the distributing network.
- Water Purification: Employing efficient water treatment systems to maintain water quality and minimize pollution.
- Reuse of the recycled water for irrigation and cleaning purposes.
- Reduction Goal: Implementing technological solutions and strategies to signi ficantly reduce water usage.

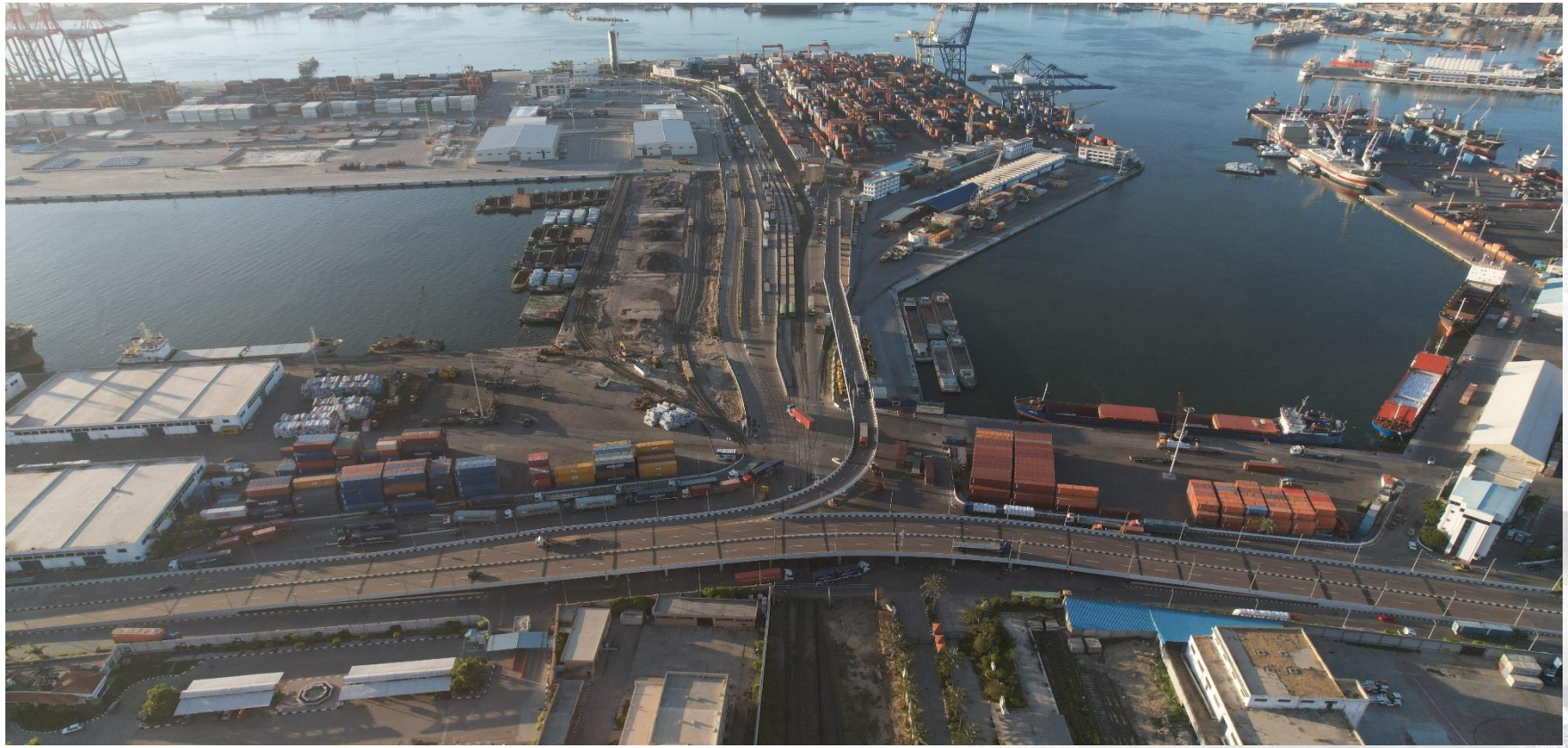
A Multimodal Transport Terminal

Directly connected to all the ways of transport in Egypt.

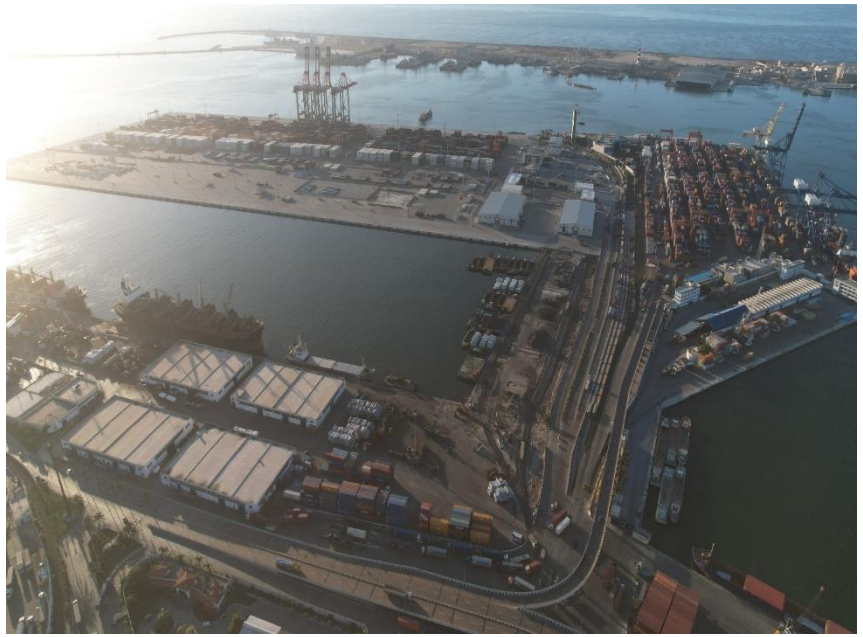


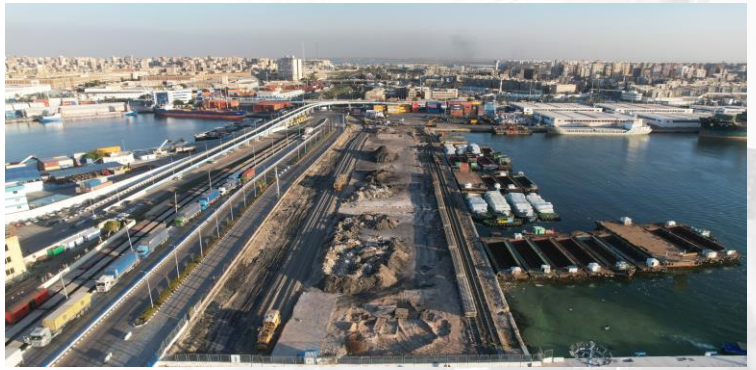
Railway Project

- A concession agreement has been done with APA for an area of 20,000 sqm to be dedicated to the Railway business.
- The infrastructure is planned to be completed by the end of June 2024
- This project will add value to our stakeholders where it will facilitate the transfer of cargo to/from Dry Ports and other maritime ports in Egypt.



Railway Project Status





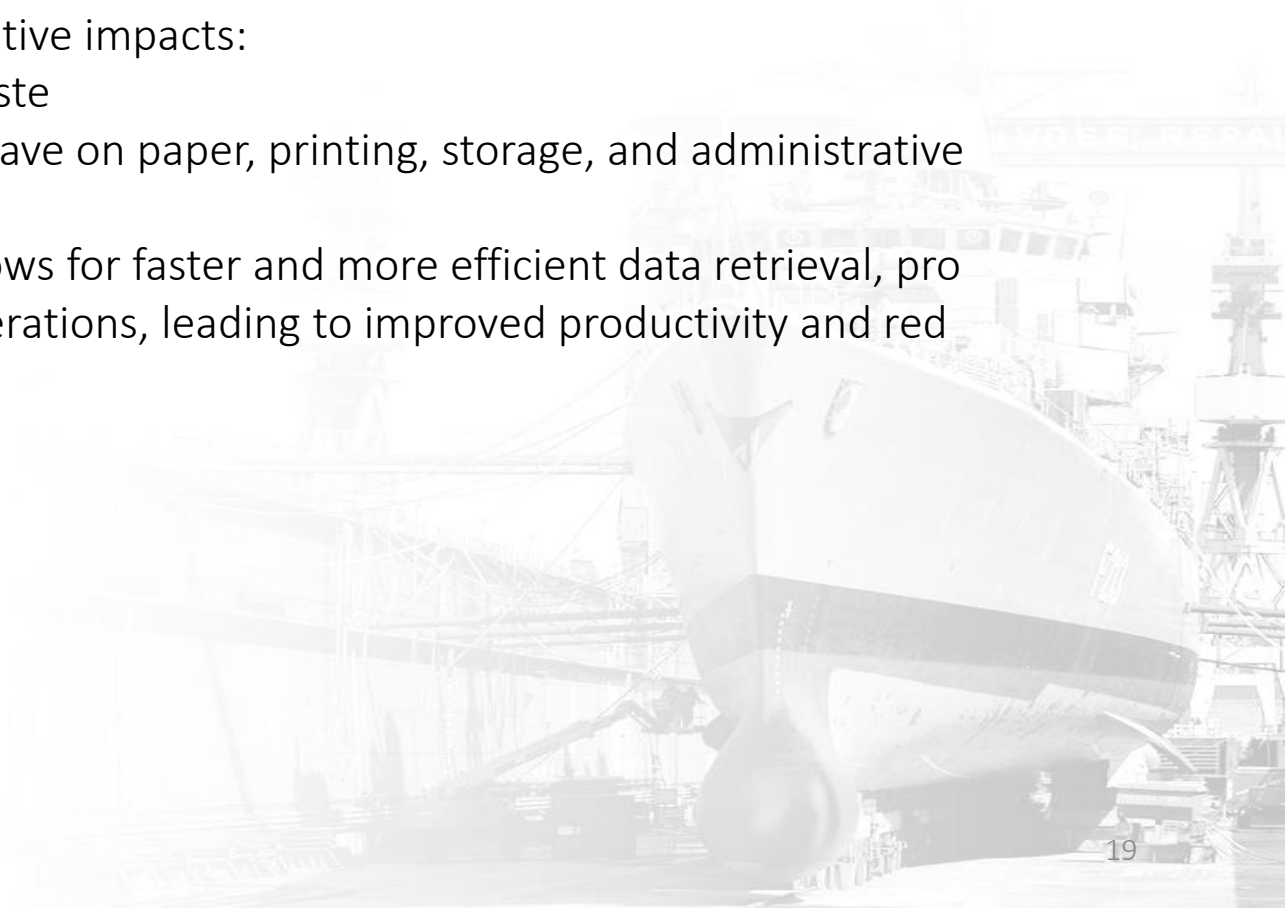
State-of-The-Art Technology – OCR GATES

Thanks to an advanced camera and a sophisticated software system

- The **OCR gates** allow remote visual inspection of information about incoming containers and trucks, thus **speeding up** the checking process.
- **Pre-entry booking** system for the trucks to reduce truck turnaround times inside the terminal.

A “Paperless Terminal”

- TMT is a paperless terminal; our system is integrated with our stakeholders’ systems:
  - Shipping Lines
  - Port Authority
  - Customs Authority
- Being a paperless terminal has several sustainable positive impacts:
  - Environmental Sustainability: Eliminating Paper Waste
  - Economic Sustainability: Cost Savings through the save on paper, printing, storage, and administrative expenses.
  - Streamlined Operations: Digital documentation allows for faster and more efficient data retrieval, pro cessing, and sharing. This streamlines terminal operations, leading to improved productivity and red uced resource consumption.



Thank You

Any Questions?

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