



Enhancing Efficiency, Sustainability and Innovation

Oct 01, 2024



Experiences

Knowledge

**Constant
changes**

Resilience

The Containers Terminals

- High volume of cargo and operations.
 - 2023 – 8.4m TEUs
 - 2024 – 9.4m TEUs
- Multiple tasks are performed at the same time.
- To ensure efficiency, move more cargo and achieve productivity.



Quick review

Key activities:

- **Operation of Gantry Cranes.** Loading and unloading shipping containers.
- **Truck Movement.** Berths and yards
- **Worker Activities.** Guiding truck and operating heavy equipment.



Don't get too comfortable with the risks

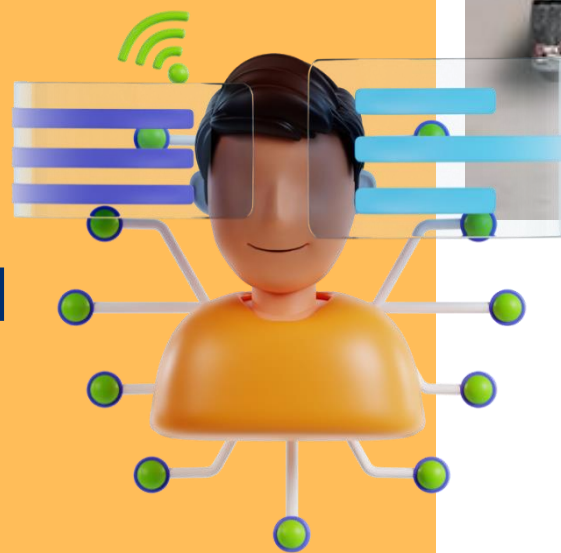
Potential Hazards

- Equipment failure or operator error.
- Collisions or accidents.
- Miscommunication or inattention.
- Improperly secured loads.

These activities require safety protocols and constant supervision



Advanced
technology and
innovation



Not only for safety, also to meet other container handling requirements

Key requirements



1

Efficient Equipment and Technology

- Equipments
- Funtionalities
- Outdated 2 o 3 years

1. Integrates automation and digitalization.

2. Supports various functions.

3. Enhance customer experience.

4. Reduce environmental impact.

2

Safety and Security

AI-integrated Yard Surveillance System

- 1. Focuses on ensuring the safety and security.**
- 2. Use cameras and AI to identify pedestrians.**
- 3. Potential Hazards:**
 - Identify unauthorized staff in restricted areas.**
 - Alerts to prevent container contamination.**

3

Sustainability Practices

Reducing carbon footprint.

- Transition to electric equipment and vehicles.
- Implement renewable energy sources like solar and wind power.
- Use energy-efficient technologies and practices.
- Increase the use of renewable electricity.

Waste and water management.

- Promote recycling and reuse of materials.
- Reduce landfill waste through better waste segregation and processing.
- Optimize water use and reduce consumption.
- Implement water recycling and conservation measures.

3

Sustainability Practices

Reducing carbon footprint.

Objectives:

- **Achieve Net-Zero by 2050:** Aligning with the Science Based Targets initiative (SBTi).
- **Reduce Scope 1 & 2 GHG Emissions by 54.6% by 2033:** From a 2021 base year.
- **Reduce Absolute Scope 3 GHG Emissions by 32.5% by 2033:** From a 2021 base year.

Community and Stakeholder Engagement

- **Supplier Code of Conduct.**
- **Community Support.**
- **Local Sourcing.**

Novel solutions

**Allowed us to
constantly generate
innovative solutions
to optimize cargo
handling processes**



1

Autonomous trucks (ATs)

- Sensors and Cameras
- Radar and LiDAR
- Artificial Intelligence (AI)
- Connectivity (GPS/V2X)

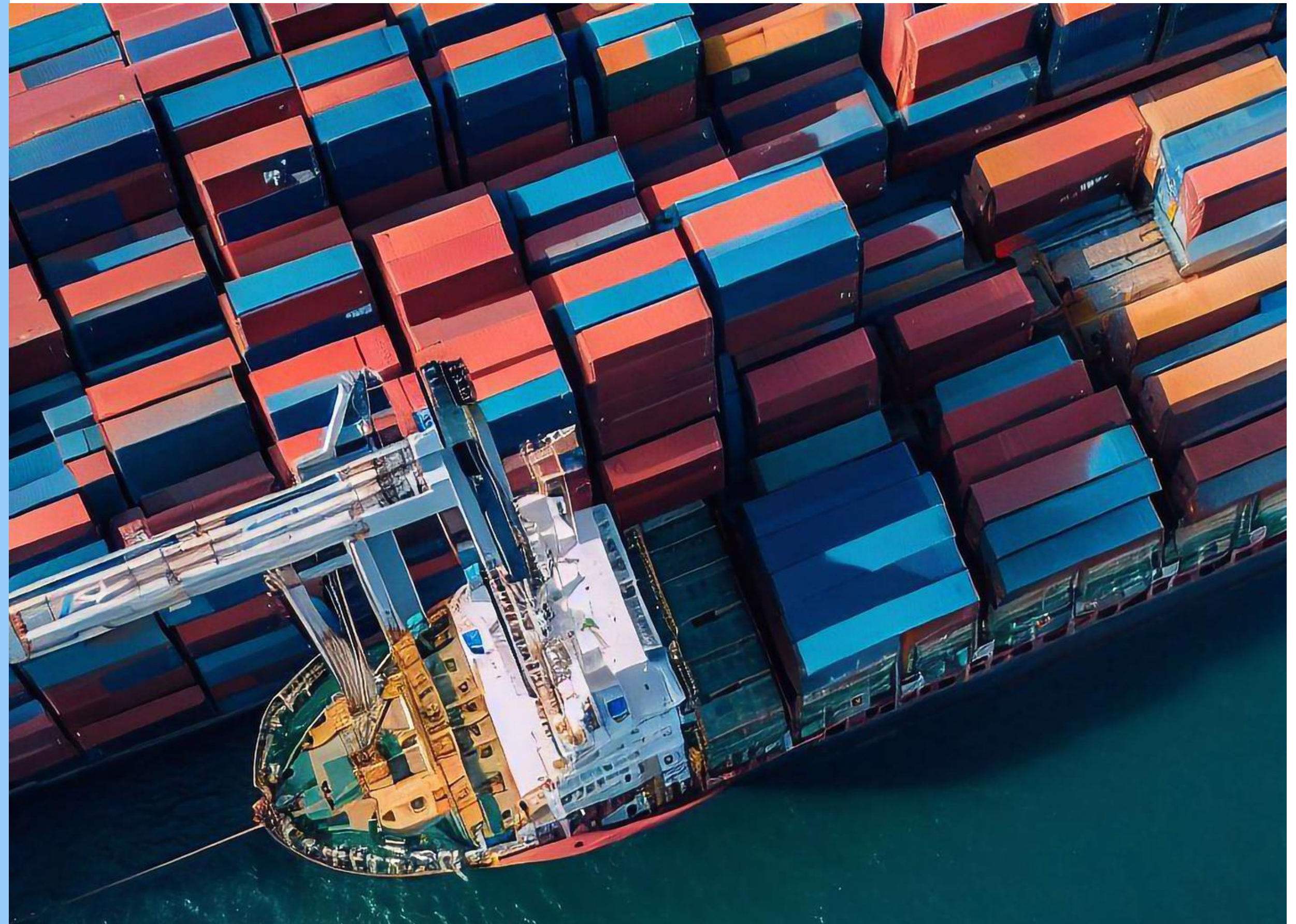
These trucks are designed to enhance efficiency in cargo handling.



Enhance efficiency, productivity and safety improvement.

Terminal Operating System (TOS) Veronica

- AI Integration
- Real-Time Data Processing
- Enhanced Coordination
- Documentation Digitalization



Designed to maximize productivity and efficiency, making it a crucial tool for modern port operations.

3

Gate Automation system

- Driver Identification System (DIS) – Registration and Identification.
- License Plate Identification System (LPIS) - Optical Character Recognition (OCR)
- Container Number Recognition System (CNRS) - OCR for Containers



designed to improve the efficiency and security of port operations

Remote Operations Service Architecture (ROSA)

4

- Remote Control – QC, AGVs, RTGs.
- Real-Time Monitoring
- Advanced Sensors and Cameras
- Integration with TOS
- Enhanced Safety Features



ROSA represents a significant step forward in port automation, enhancing both efficiency and safety.

5

Energy Management and Electrification

All new equipment purchases will be fully electric.

- Electric Equipment
- Renewable energy integration.



HIGHLIGHTS

Hutchison Ports emphasizes its dedication to creating a safe, inclusive, and sustainable workplace while conducting business ethically and transparently.

OUR ENVIRONMENT



Science Based Targets initiative (SBTi) approved our near-term and net-zero targets



-10.6% in CO₂ intensity, compared to 2022



-19.4% in Scope 1 & 2 emissions, compared to 2021 baseline



Extended coverage of purchasing green electricity



-5.5% in Diesel Consumption per TEU



Developed BU level decarbonisation plans



OUR PEOPLE



Strengthen enforcement of the Global Minimum Safety Standards (GMSS) 12.11 on pedestrian safety

Over 1,500 participants in Global Connect

GLOBAL CONNECT

88% of the global network participated in Climate Fresk Card Game



Go Green × Dock School

Planted **10,300 trees** and Interacted with **3,100 students** under Go Green x Dock School campaign



OUR BUSINESS



Reduction in global inventory level



Established Shared Services Centre



New Terminal Operating System - Veronica



Gate automation in Hutchison Ports Thailand



Implementation of Autonomous Trucks (ATs) in Hutchison Ports Port of Felixstowe (United Kingdom), Hutchison Ports ICAVE (Mexico) and Hutchison Ports Thailand





**TOGETHER, WE CAN
MAKE IT HAPPEN**