

*Sail to the Future*

# Beyond Efficient & Automation

Small steps make  
a big leap

## TOTAL SOFT BANK

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Since 1988, **Total Soft Bank Ltd. (TSB)**, has devoted to developing the ideal solutions for port and maritime industry, focusing on solutions for shipping, terminal, port community and simulator.

- **Office**
  - Head Office in Busan, Korea
  - Global Networks throughout world
  - *Regional Offices in Spain, Greece, Egypt, Hong Kong, Vietnam*
  - *Joint Venture in Japan, Sales Agent in Taiwan and Colombia*
- **Human Resources**
  - HQ: Over 150+ employees (Vietnam: 50, Greece: 10+)
  - 70% of employees in Development, R&D and Professional services
- **Qualification**
  - ISO 9001 certified and INNOBIZ certified
  - KOSDAQ listed in 2002  
*KOSDAQ: Korean Securities Dealers Automated Quotations*
  - Green technology certificate
  - Software process quality assurance certificate Lv.2
- **Customer**
  - **Over 135+ marine terminals**
  - **Over 58.6% world's container fleets**



# Overview of TSB – Latest Update & Pre-Release



01

02

03

04

05

06

07

08

## 2020

- Next Generation of Logistics Digitization Solution Platform
- Digitization Collaborative Service Platform
- Optimization Services Platform



**A AI Machine Learning**  
**B Big Data**  
**C Cloud Computing**  
**D Digitalization**  
**E Edge Computing**

Small steps make a big leap





# Overview of TSB – Latest Update & Pre-Release



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## 2022

- Next Generation of Logistics Digitization Solution Platform
- Digitization Collaborative Service Platform
- Optimization Services Platform
- **Autonomous Truck Operation & FMS Solution**



# Overview of TSB – Latest Update & Pre-Release



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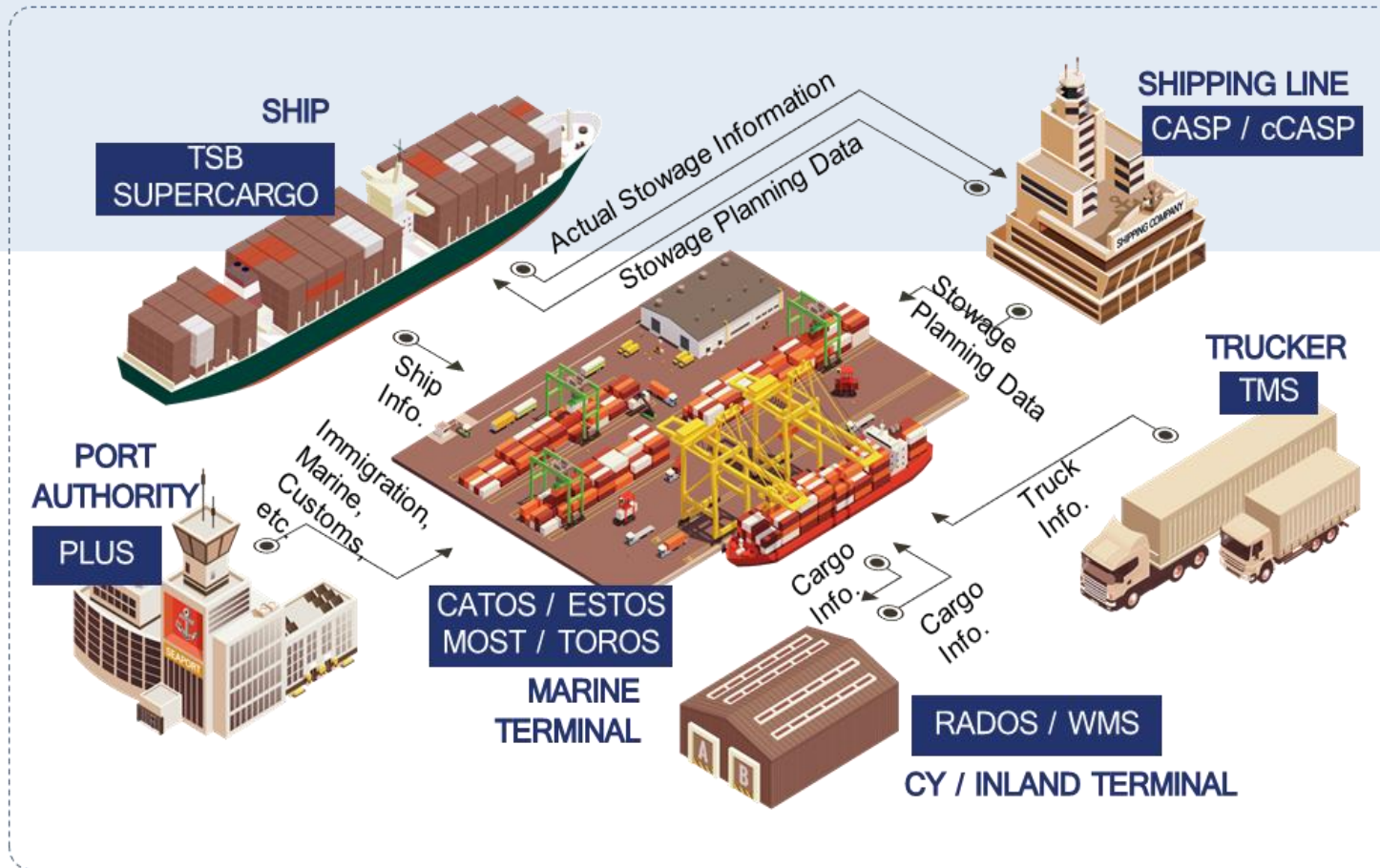
## 2023

- Next Generation of Logistics Digitization Solution Platform
- Digitization Collaborative Service Platform
- Optimization Services Platform
- **Autonomous Truck Operation & FMS Solution**





# Smart Port & Terminal Development



## Terminal Operating Solution

- Container Terminal (CATOS, ESTOS)
- Inland Terminal (RADOS)
- Multi-purpose Terminal (MOST)
- Car Terminal (TOROS)
- Simulator/Emulator (simTOS)

## Automated Solution

- Auto-dispatch of yard truck (CHESS)
- Unmanned equipment control system (ATCSS)
- Truck Booking System (TBS)

## Shipping Solution

- Ship Stability (TSB Supercargo)
- Stowage Planning (CASP)
- Fleet Management (Cloud CASP)

## Training Solution

- Simulation (VRARXR)

## Port Community Solution

- Port Information Management (PLUS)

## Logistics Management Solution

- Transportation Management System (TMS)
- Warehouse Management System (WMS)



## TSB Operating Environment Solution

**Port Authority  
Port Community System  
(PCS – PLUS 2.0)**



**Optimization & Alert  
Automation  
Global Monitoring**

**Terminal Operating  
System  
(CATOS 8.1)**



**Optimization  
Automation  
AI Dashboard**

**Multi-Purpose  
System  
(MOST 4.0)**



**Optimization  
Automation  
IoT Integration**

**CFS / Warehouse /  
M&R Solution  
(TSB-CFS)**



**Optimization  
Automation  
BI Dashboard**

**ITT Operation  
(CATOS 8.1 / TMS)**



## Efficient

Efficient refers to achieving a desired outcome with minimal waste of resources, such as time, effort, or money, maximizing productivity and effectiveness.

## Automation

Automation is the use of technology to perform tasks without human intervention, aimed at increasing efficiency and productivity while reducing errors and resource use.

**TOS**  
(Optimization)

**Infrastructure**  
(WiFi, 4G LTE, 5G)

**New Energy**  
(Green Solution)

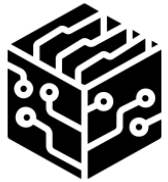
**Automation**  
(ARMG, AT, IGV)

**Digital-Twin**  
(IoT, Forecasting)





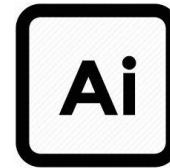
Power BI



Big Data



Automation



Cost  
Optimization



TOS  
(Optimization)

# INNOVATION



## FMS

Fleet Management System

FMS designed to streamline the operations of a fleet of terminal vehicles used by organizations for terminal & ports or service delivery. Key features include: Vehicle Tracking, Maintenance Management, Fuel Management, Charging Management, Driver Management, Live Route Optimization, BI Reporting & Analytics and etc.



TOS  
(Optimization)



## 4G LTE & 5G

Safety Solution

Both 4G LTE and 5G play essential roles in modernizing terminal operations, enhancing communication, efficiency, and the ability to leverage advanced technologies in the port & terminal, e.g. remote operation, autonomous vehicles, video to everything (V2X), and etc.

- External truck path & positioning
- Safety alert
- RTG ground & pickup trigger
- Container position update
- Dashboard & broadcasting
- Junction traffic's status
- Queuing situations in the block/under RTGC

**TOS**  
(Optimization)

**Infrastructure**  
(WiFi, 4G LTE, 5G)

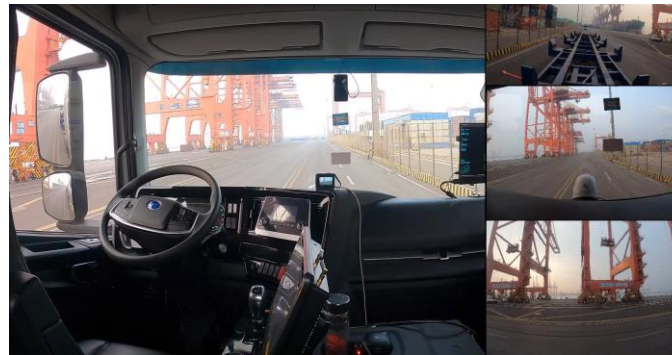




Green Energy The next green solutions / ESG platform in terminal operations are likely to focus on sustainability, efficiency, and reducing the carbon footprint.



- Electrification of Equipment
- Renewable Energy Integration
- Automated & Electric Autonomous Vehicles
- Battery Swapping
- Carbon Footprint Measurement on CO<sub>2</sub> emissions routing via ISO14083



**TOS**  
(Optimization)

**Infrastructure**  
(WiFi, 4G LTE, 5G)

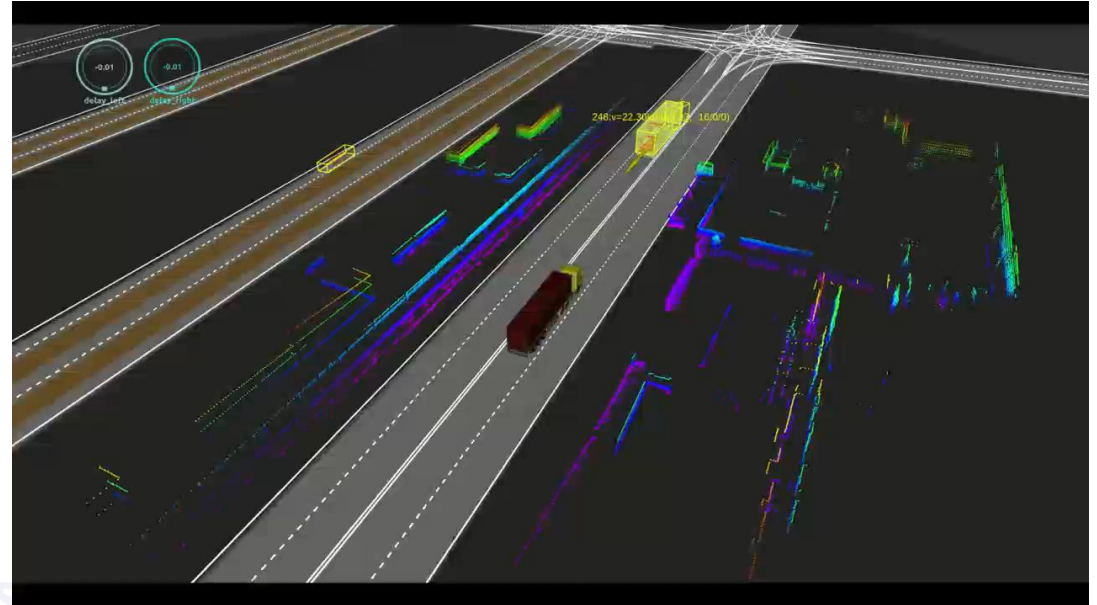
**New Energy**  
(Green Solution)



## Automation

Automation refers to the use of technology to perform tasks or processes with minimal human intervention, e.g. industrial automation, process automation, IT automation, hybrid automation and etc.

- Increased Efficiency
- Cost Savings
- Improved Accuracy
- Enhanced Safety
- Scalability & Stable



**TOS**  
(Optimization)

**Infrastructure**  
(WiFi, 4G LTE, 5G)

**New Energy**  
(Green Solution)

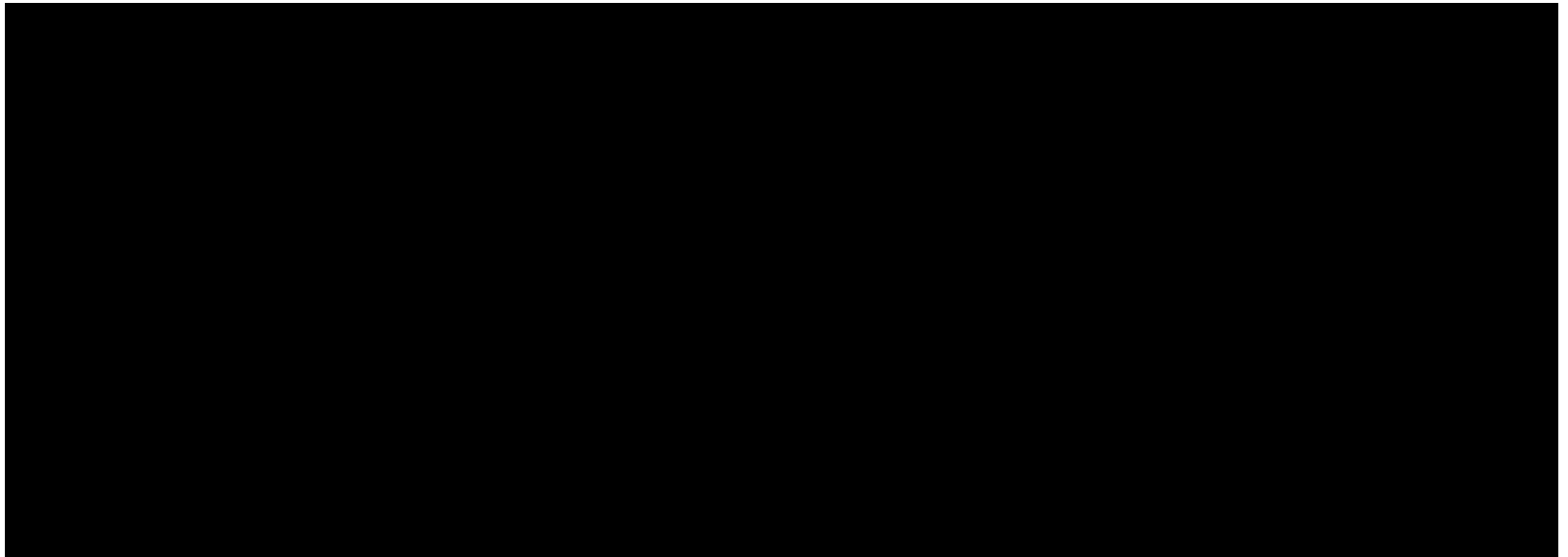
**Automation**  
(ARMG, AT, IGV)



## Digital-Twin

Simulation & Forecasting

A Digital-Twin is a digital representation of a physical object, system, or process that simulates its real-world counterpart in real-time. It can be used to optimize processes and systems, leading to improved efficiency, reduced costs, and better resource management.



**TOS**  
(Optimization)

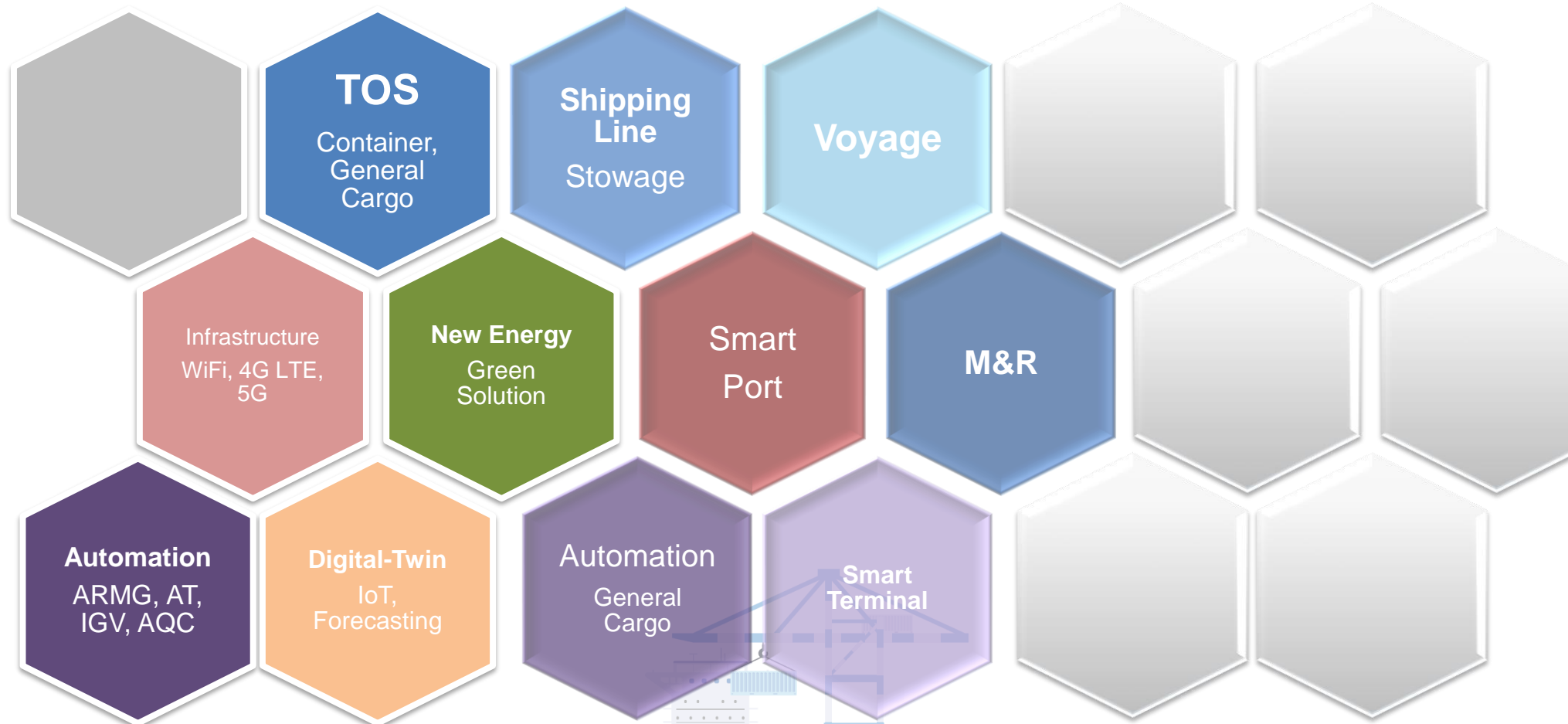
**Infrastructure**  
(WiFi, 4G LTE, 5G)

**New Energy**  
(Green Solution)

**Automation**  
(ARMG, AT, IGV)

**Digital-Twin**  
(IoT, Forecasting)





# INNOVATION

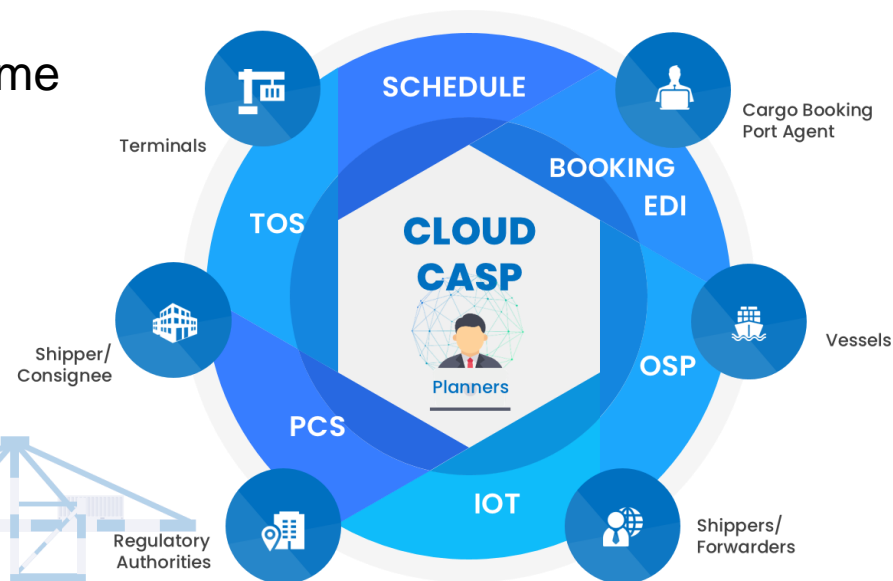


## Collaboration

Shipping Line, Vessel, Terminal

A Collaboration Platform is a digital solution that facilitates communication, teamwork, and the sharing of information among individuals or groups, regardless of their physical location

- Enhance Communication
- Improve Data Quality in real-time
- Fostered Innovation



Terminal

Shipping  
Line

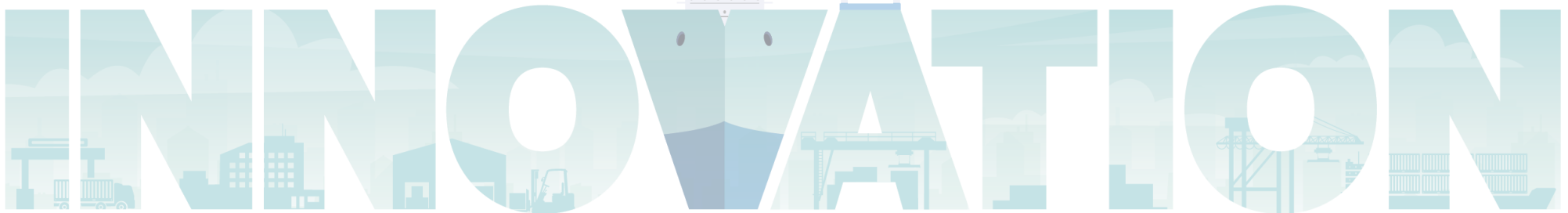
Vessel



## Automation

General Cargo & Container

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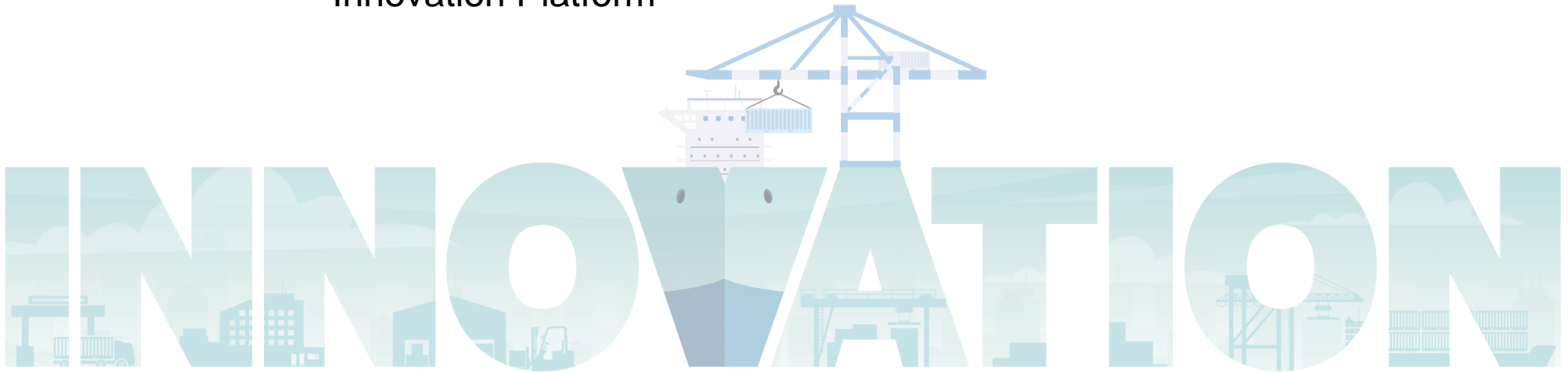




## Vision

Focus on making progress with each small step, and together, we can achieve remarkable advancements in the terminal, port, shipping line, and logistics industry.

- Incremental Improvements on TOS CATOS, MOST, PLUS & BI Tools
- Process Optimization on Manual terminal, Automated terminal & Hybrid terminals.
- Renewable Energy Integration & IMO14083
- Collaboration and Communication Platform (Terminals, Ports, Shipping Lines and etc.)
- Data-Driven Decisions Platform
- Innovation Platform



# THANK YOU

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NET  
ZERO

calculate. understand. reduce.