



SMART CONTAINERS WITH MSC

[msc.com/technology](https://www.msc.com/technology)

Passion is what keeps MSC moving ahead when crossing oceans, or reaching far away corners of the globe. Innovation drives the way we develop technology to transport goods faster, more efficiently and in a more sustainable manner. Our growing fleet, modern equipment and dedicated teams, demonstrate the commitment of MSC towards our customers. We are a family company, founded by Captain Gianluigi Aponte, and our focus remains true to our roots, building and retaining long-term trusted partnerships with customers of all size and scale. We care for our people, our customers and their cargo.



510
VESSELS



200
ROUTES



500
PORTS OF CALL



20
MILLION TEU
CARRIED ANNUALLY



155
COUNTRIES



480
OFFICES



70,000
MSC GROUP EMPLOYEES

HOW CAN SMART CONTAINERS ENHANCE YOUR SUPPLY CHAIN?

24/7 VISIBILITY & REAL-TIME NOTIFICATIONS FOR ALL YOUR CONTAINERS

What if you could see the position of all your containers in transit anywhere on the globe at any time, whether on rail, road or sea?

What if you could inform the right people about unexpected events on your container's journey so that they can take timely action?

Use exception management to trigger contingency sourcing plans when needed

ANALYTICS

How could you improve your decisions on your inventory management, suppliers, packaging, and more if you had complete, precise, historical data for all your container journeys?

Identify and implement concrete operational improvements to generate cost reductions

REAL-TIME CONTAINER DATA DIRECTLY INTO YOUR CORPORATE INFORMATION SYSTEM

If all the raw data generated by your smart containers could be accessed by your ERP or TMS, how could you update your processes in real-time?

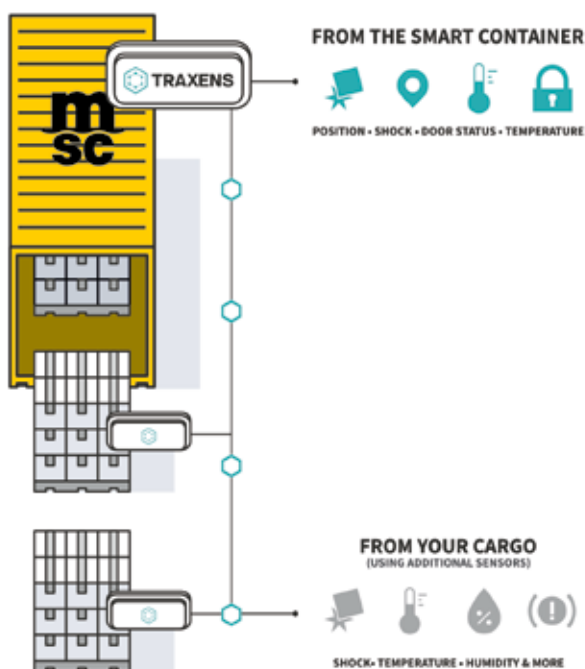
WHAT IS A SMART CONTAINER?

A Smart Container is a standard container permanently fitted with electronics which transmit data (position, temperature, movement, shocks, door opening...) and near real-time events (Geofencing in/out site, late in/out site, door status...).

You can also know more about the condition of your cargo by placing additional sensors for temperature, shocks, humidity and more, within your cargo. These sensors are like traditional data loggers but you can see the values in real-time as the cargo travels across the planet.

To understand what Smart Containers can do for you, take a look at the video on www.traxens.com, or go to <http://vimeo.com/traxens/SmartContainers>

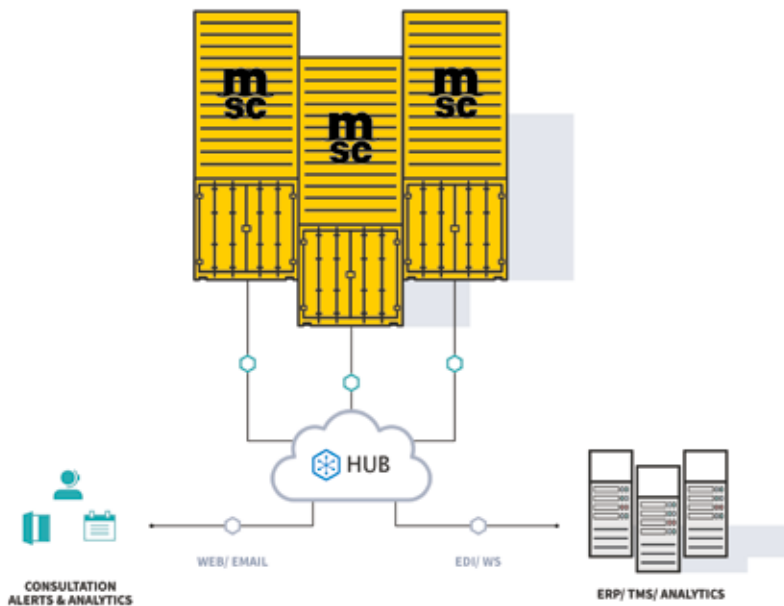
No Device Installation or Reverse Logistics



ABOUT OUR PARTNER TRAXENS

Traxens generates, collects, consolidates, enriches and transforms logistics asset data into actionable insight. The breakthrough internet-of-big-things technology provides comprehensive, real-time information for managing logistics assets anywhere in the world. Traxens solutions digitally transform multi-modal supply chains, enabling customers to reduce costs, optimize investments, comply with environmental regulations and deliver premium services to their customers. For more information: www.traxens.com

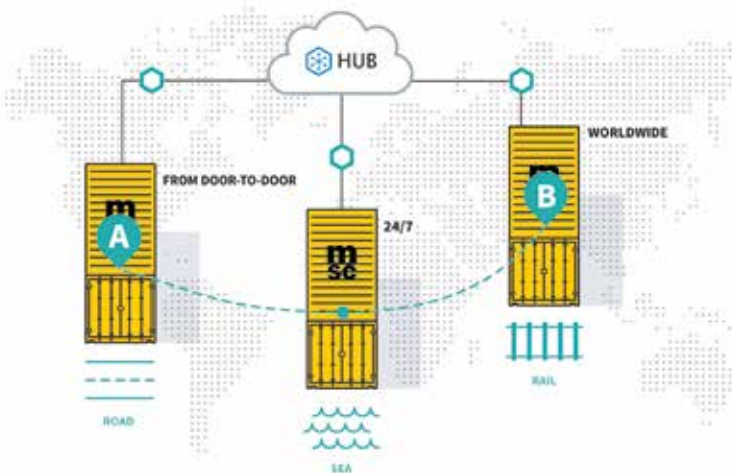
THE WORLD'S MOST ADVANCED SMART CONTAINER SYSTEM



MSC Mediterranean Shipping Company (MSC) is increasingly introducing smart container solutions for customers at many locations around the world, using IoT solutions developed by its partner Traxens.

The Traxens Smart Container system is the only system designed from day one to deliver the benefits of IoT and Big Data to the whole container shipping ecosystem.

Years of R&D have been spent developing breakthrough technology which drives down the total cost of operating Smart Container over time. The scalable data platform TRAXENS-HUB was built to manage millions of containers and is easily integrated into corporate IT systems.



Real Data directly from the Smart Container from Door-to-Door, 24/7, on Sea, Rail or Road

BETTER DATA: COMPLETE, USEFUL, AVAILABLE, RELIABLE, AND ON TIME

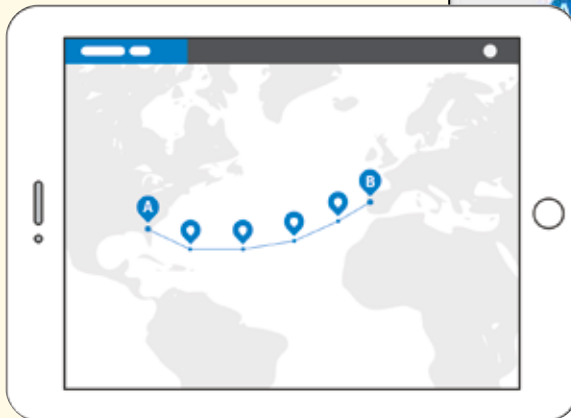
- COMPLETE:** Position and condition of your cargo from door- to-door, 24/7. No more black spots, even during rail transport.
- USEFUL:** You can create alerts so that important information gets noticed. A late departure? Door open in an unexpected place? A temperature beyond a given threshold? Traxens is directly integrated with MSC's information system and they combine data from the Smart Containers with our data to give you meaningful, contextualized, and timely information.
- AVAILABLE:**
 - Any number of your staff can access the TRAXENS-HUB platform.
 - Allow staff, suppliers and customers to have access to selected information, or to receive email alerts.
 - Access all raw data through your TMS or ERP.
- RELIABLE:** Data from Smart Containers is secure and reliable because it is created electronically and encrypted from end-to-end.
- ON TIME:** routine information is updated at regular intervals each day, important alerts are sent as soon as possible.

REAL-TIME SNAPSHOT OF ALL CONTAINERS IN TRANSIT >



< **DYNAMIC UPDATE OF DOOR-TO-DOOR TRIP PLAN**

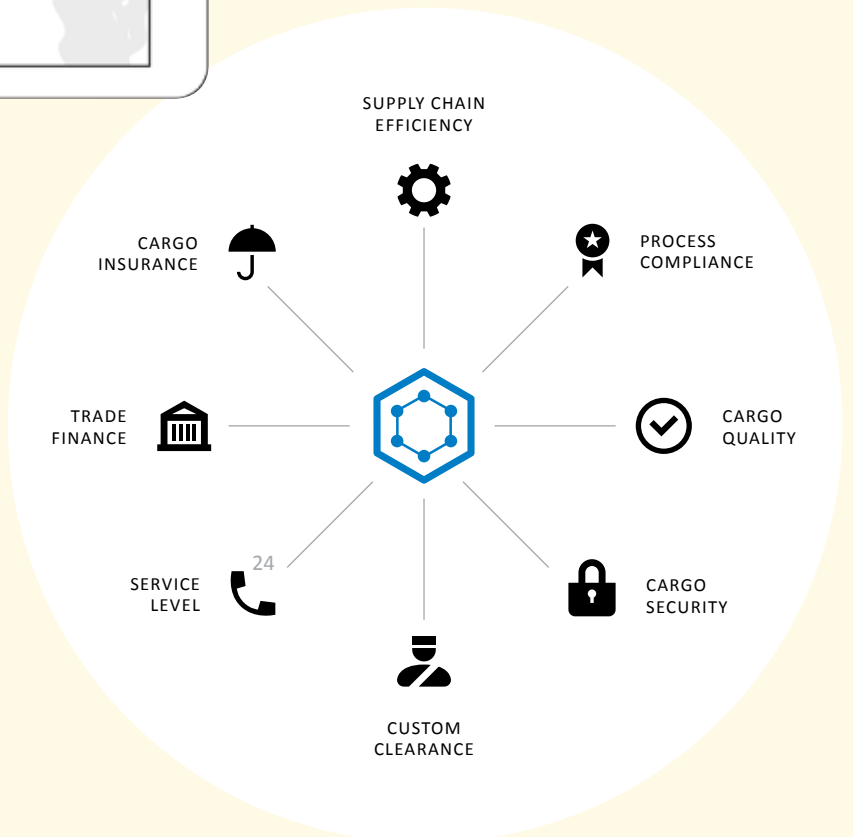
CONTAINER POSITION HISTORY >



PUTTING THE DATA TO WORK

Data from Smart Containers is used to optimize a large range of operations within your Supply Chain.

It's much more than just knowing the position of your containers on a map.



THINK BIG: 100% SMART CONTAINERS IN YOUR FUTURE SUPPLY CHAIN

The Smart Container represents a major transformation for Supply Chains. As for all major transformations, the “Think Big, Start Small, Build Quickly” rule applies; so start building your future Container Supply Chain now.

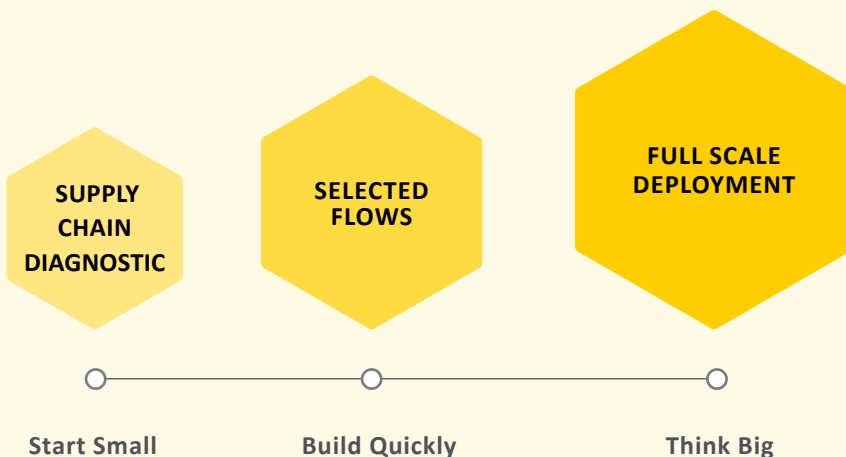
START SMALL: CONTAINER SUPPLY CHAIN DIAGNOSTIC

A Container Supply Chain Diagnostic is an easy way to start with Smart Containers. There is no long-term commitment, no system integration required, and as always, no installing or returning devices. The Container Supply Chain Diagnostic is designed to offer you two important takeaways:

- Hard facts about a specific container route allowing you to streamline targeted operations.
- A better understanding of the potential of Smart Containers for your whole Supply Chain.

BUILD QUICKLY: INTEGRATION, PROCESSES, SHARING

The Container Supply Chain Diagnostic will give you a glimpse of the transformative power of this new source of data, but it is just the beginning. You can achieve even greater benefits through personalised dashboards, integration with your IT and much more. Real transformation will only happen when you integrate the potential of Smart Containers into your processes and into the relationships with your partners. Traxens will accompany you the whole way through pilots, ramp-up and onwards to full deployment.



HOW IT WORKS

The diagnostic should be made to include 50 or more container trips, over a three month period, and from 3 origins maximum. Traxens will ensure with MSC that Smart Containers are made available for each trip instead of standard containers. There is no need to change any processes or to train any operational staff.



50 or more
Container Voyages



3 Months



3 Routes max



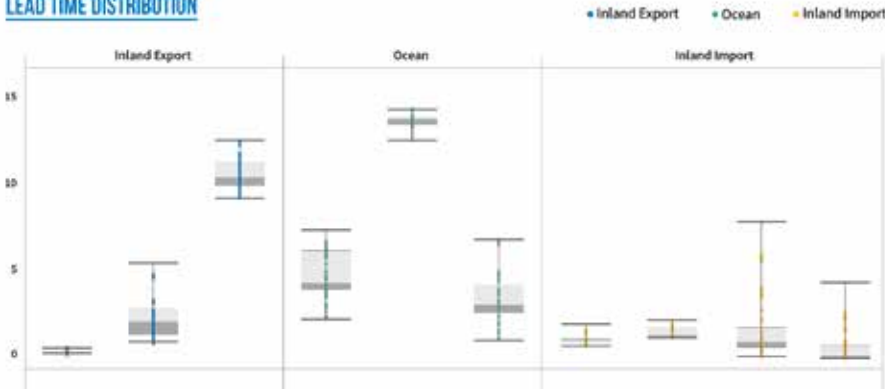
Personalized
Analysis

MSC and Traxens will accompany you throughout so you can access the right data in real time, and Traxens will present a detailed analysis with actionable data at the end of the project.

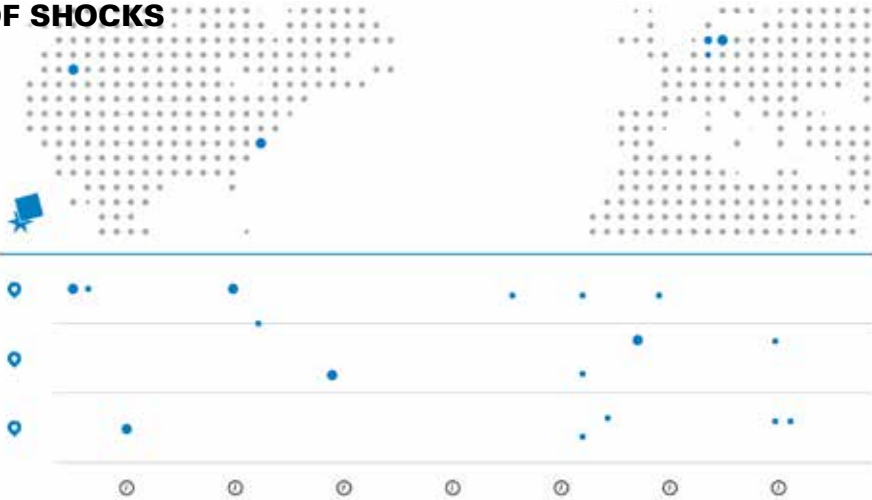
TYPICAL RESULTS FROM CONTAINER SUPPLY CHAIN DIAGNOSTIC

DISTRIBUTION AND VARIANCE ANALYSIS OF IDLE AND TRAVEL TIMES FROM DOOR-TO-DOOR

LEAD TIME DISTRIBUTION



LOCATION & TIMING OF SHOCKS



Lead time per trade

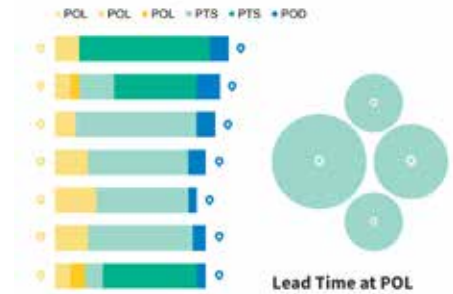


AVERAGE IDLE AND TRAVEL TIMES ACROSS MULTIPLE DOOR-TO-DOOR ROUTES



IDLE TIME ANALYSIS AT POL ACROSS SEVERAL ROUTES HIGHLIGHTS SIGNIFICANT DIFFERENCES

Lead Time per Segment Role per Lane



DOOR-TO-DOOR LEAD TIME ANALYSIS SHOWS AVERAGE, INDIVIDUAL, AND DISTRIBUTION IN INLAND AND OCEAN LEGS

AVG DOOR TO DOOR LEAD TIME



AVG LEAD TIME PER CONTAINER



DISTRIBUTION OF DOOR-TO-DOOR LT



Legend for Distribution of Door-to-Door LT: Inland Export, Ocean, Inland Import



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