



# UNDERSTANDING MIXED CARGO OPERATION - CHALLENGES & OPPORTUNITIES

**Meena Shah**

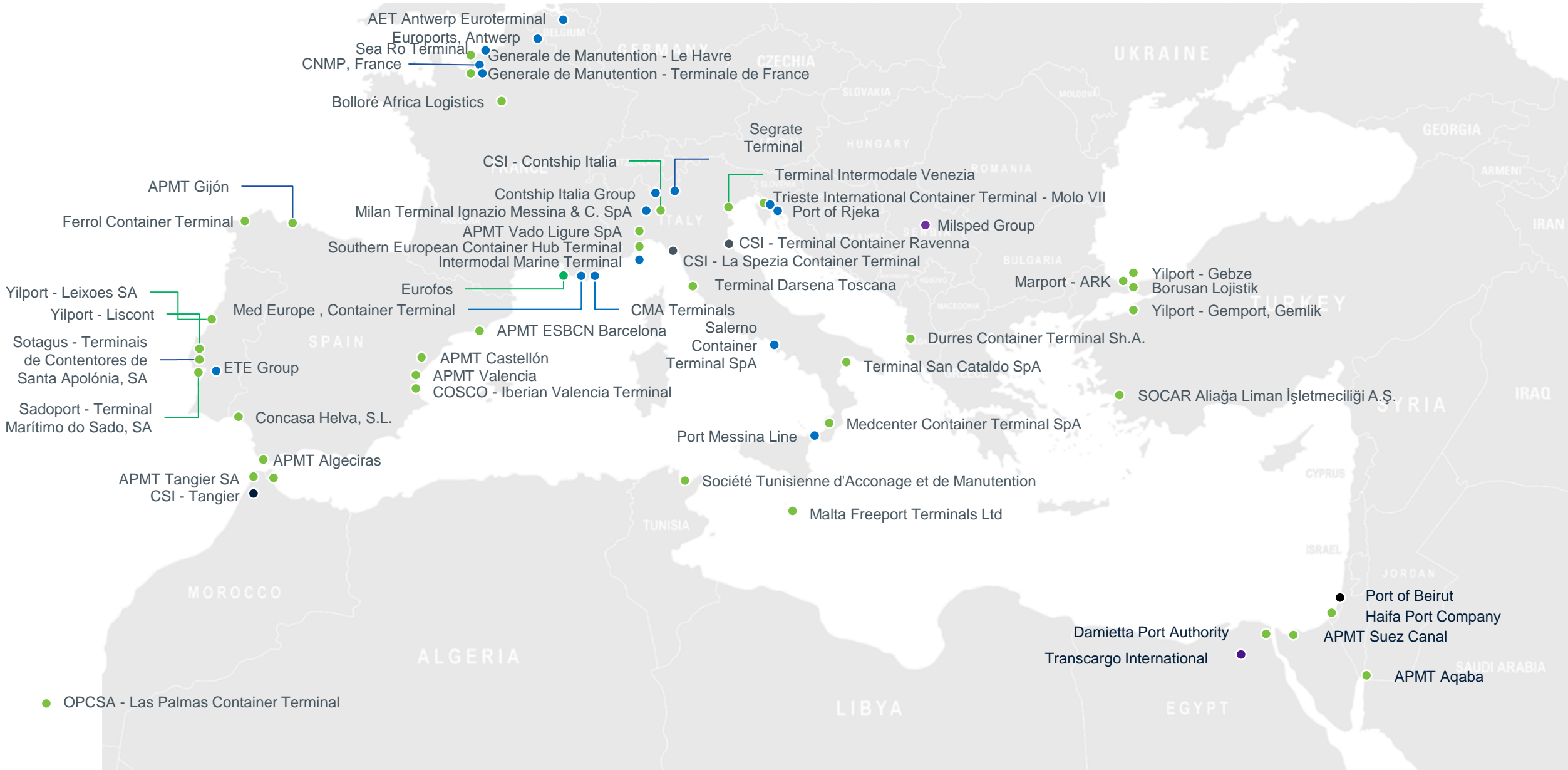
Director, Sales Engineering, EMEA

[meena.shah@navis.com](mailto:meena.shah@navis.com)

# EURO MED CUSTOMERS



- SPARCS
- N4
- Master Terminal by Navis
- Octopi by Navis





# Mixed Cargo & Intermodal

**Challenges**

Site and  
Material  
specific needs

Varied real-  
world handling  
processes

Material and  
Regional  
specific  
regulations

Storage  
Separation  
requirements

Climatic needs

Differing  
dimensions  
and units of  
measure

**Risks**

Reduced  
quality

Inefficient &  
Costly  
handling

Compliance  
Issues

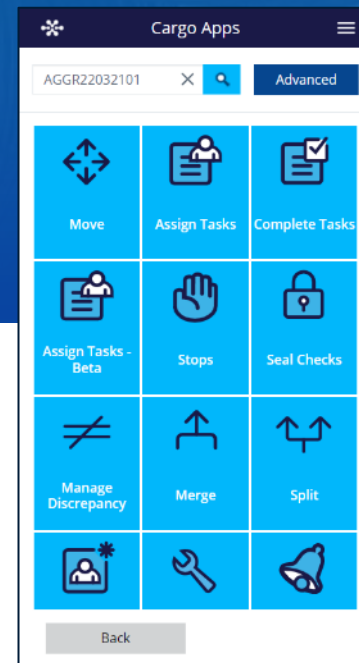
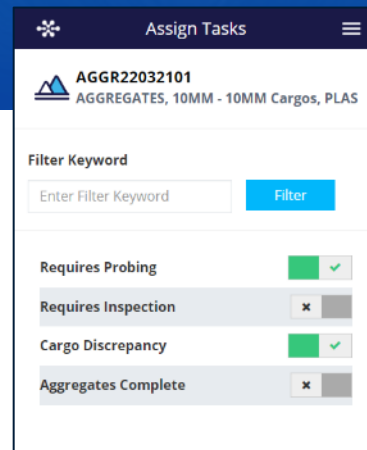
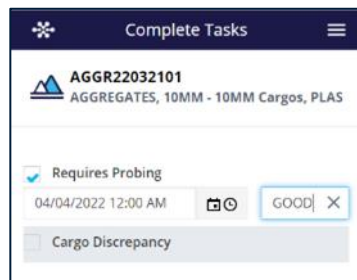
Cross  
Contamination

Deterioration

Inaccurate  
conversions

# Challenging Operating Environments

- Practical solutions for different environments
- Material specific activities
- Accurate, granular charging capabilities





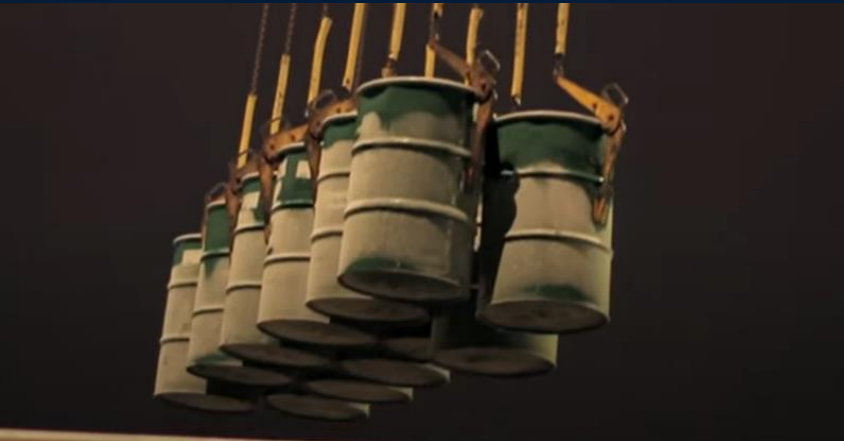
# Non-standard handling



**Variability adds  
time and money**



**Balancing act between Customer  
service & profit**



**Increased risk of  
human error**





Challenges we face

## Complex Services



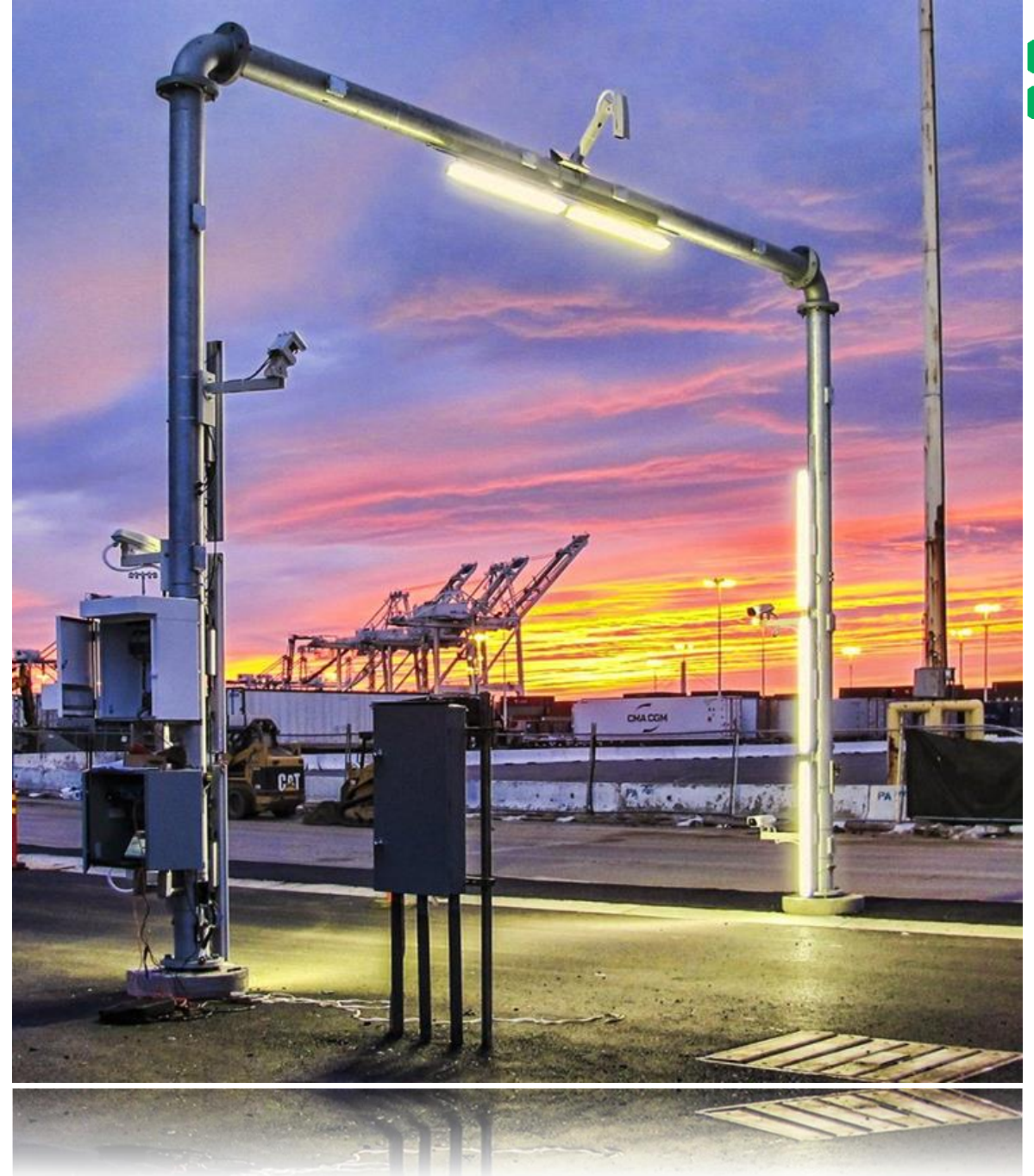
- Different customers with different needs
- Varied processes and handling options
- Broad range of Value-Added Services
  - Packaging, reshaping, and repackaging
  - Self-service storage
  - Container Filling
  - Grading
  - Assembly
  - Reticketing
  - Specialized storage



Challenges we face

## Technology Challenges

- Lack of investment
- Change management
- Traceability & Visibility
- Automation
- Gate Complexity
- Connecting with Devices
- Integration with systems





Challenges we face

## Limited Standardization

- Defining general cargo in EDI is difficult
  - Free text fields & bespoke processing
- No agreement among suppliers or manufacturers on the use of specific attributes across the supply chain





# Mixed Cargo & Intermodal

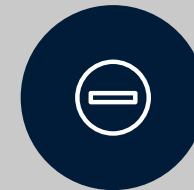
## Challenges we face



Complex & Varied



Technology Challenges



Limited Standardisation

## Solutions need



Flexibility & Adaptability



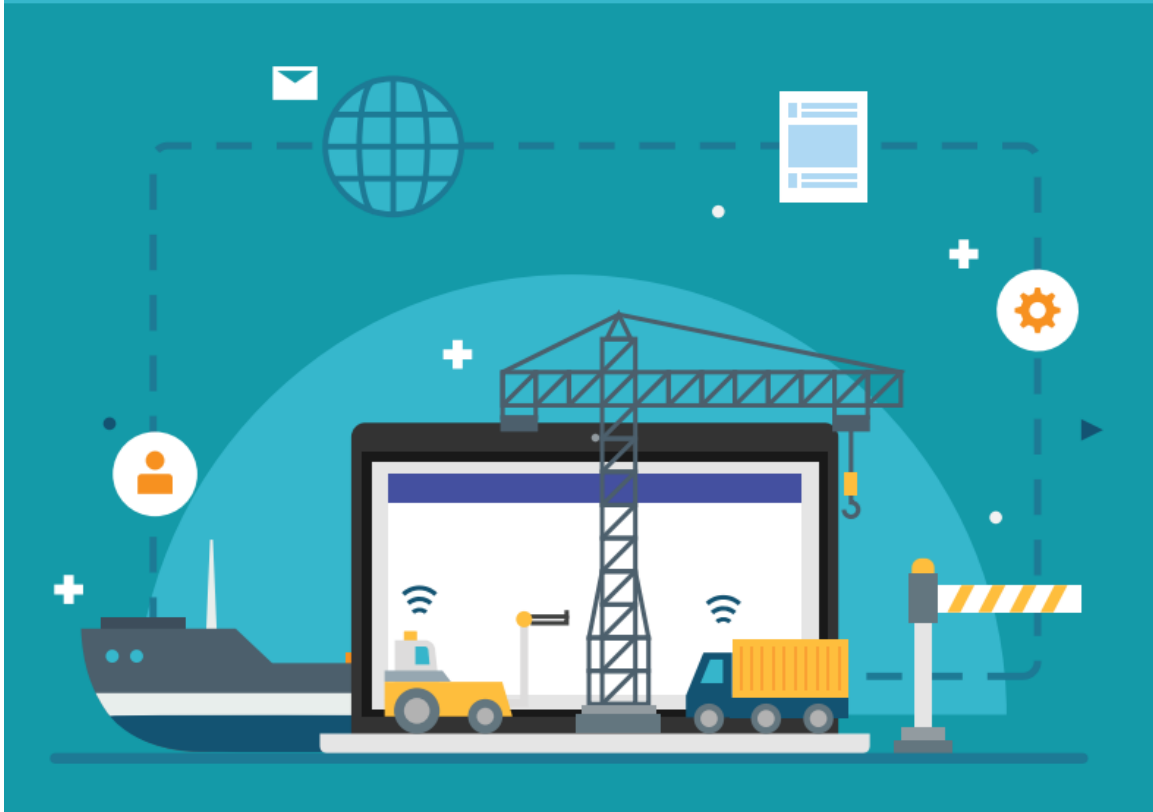
Diverse Technology Support



Traceability & Visibility



# MASTER TERMINAL FOR MIXED CARGO PORTS



Solutions need

## Flexibility & Adaptability

- Terminal business changes over time
- Flexibility to easily configure and adapt business rules & invoicing
- Configuration challenges - standard configurations vs customized ones
  - Trade-offs to consider
- Deployment options changing

Solutions need

## Technology Support

- Integration with devices
- Gate Kiosks & Self Service for GC
- Delivery Orders & Appointments
- Integration with internal & external systems
- Customer Defined EDI





Solutions need

# Traceability & Visibility

- Ability to identify and trace General Cargo
- Provide visibility to different stakeholders
- Granular invoicing capabilities



# MIXED CARGO TOS SOLUTIONS

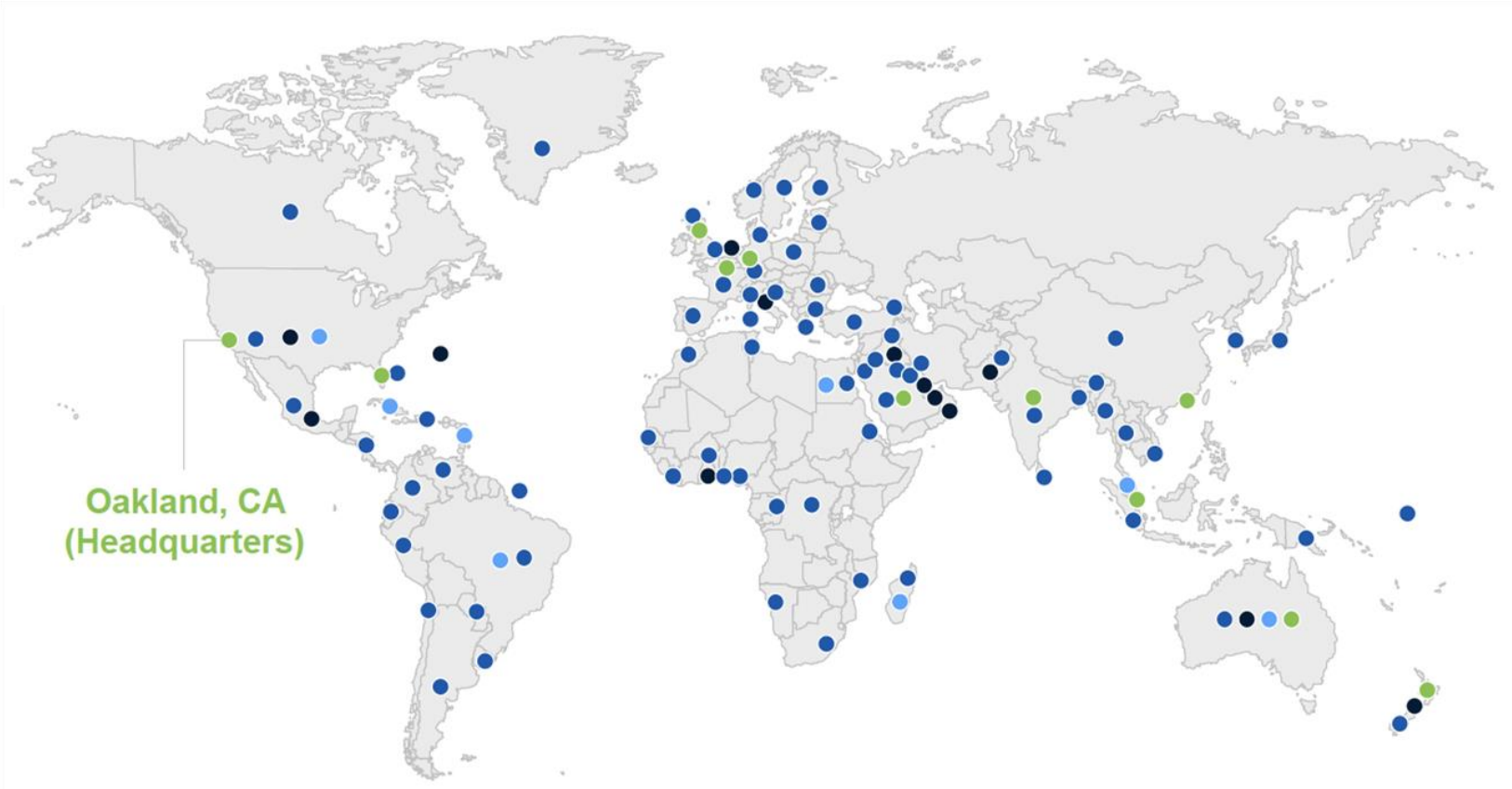


# NAVIS IS THE PARTNER OF CHOICE FOR CLIENTS ACROSS THE GLOBE



Making global trade smarter, safer, and more sustainable for everyone

- ~460 terminals in 80+ countries
- ~340 Vessel carriers and owners
- +40% Estimated share of world container throughput market
- 23 Offices Globally
- 600+ Employees
- 24/7/365 Customer support



Oakland, CA (Headquarters)

Projects Running with Navis Software:

- N4
- Master Terminal by Navis
- Octopi by Navis
- Primary Office Location

## Leading Automation Solutions



Terminal Solutions



Carrier & Vessel Solutions

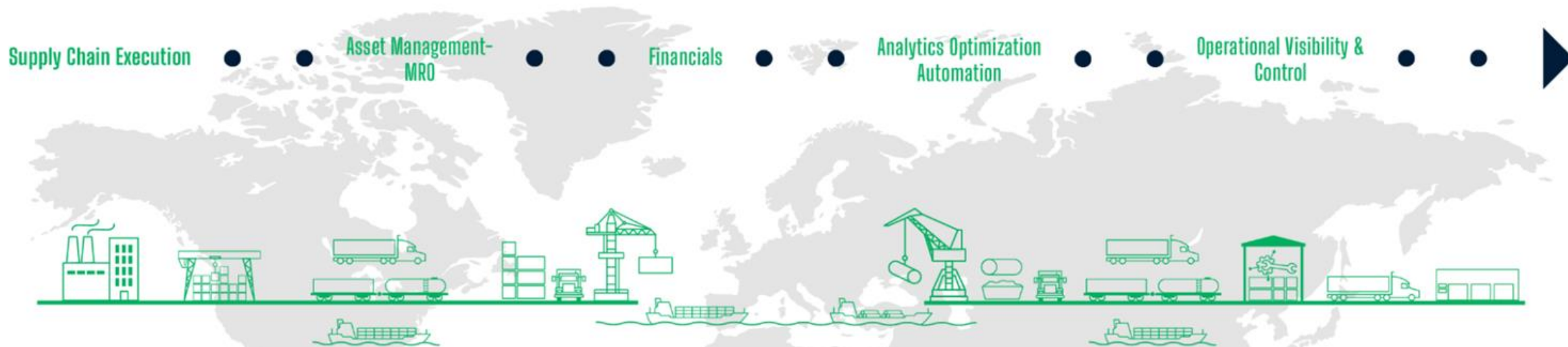


Inland Solutions



# Every Move Matters

Addressing All Players in the Supply Chain



**TOS**

---

Maritime TOS  
Inland Depot TOS

**CVS**

---

Stowage Planning  
Loading Computer  
Fleet Performance & Emission Compliance

**YMS**

---

YMS  
RT & Inyard Location  
Enterprise Yard Visibility

**TMS/MRO**

---

Railcar Management  
Yard Transportation  
Truck management  
Repair Mgmt & billing

**EVP**

---

Visibility APIs  
Visibility & Execution Apps  
Asset Tracking  
Analytics

# CONNECTED SUPPLY CHAIN



**Terminals need to...**



**Replace Website Scraping with APIs**



**Middleware integration layer**

**Monetize Terminal Data via APIs**



**Feed TOS Operational data to a data lake**

**Data Extraction via API independent of TOS version**



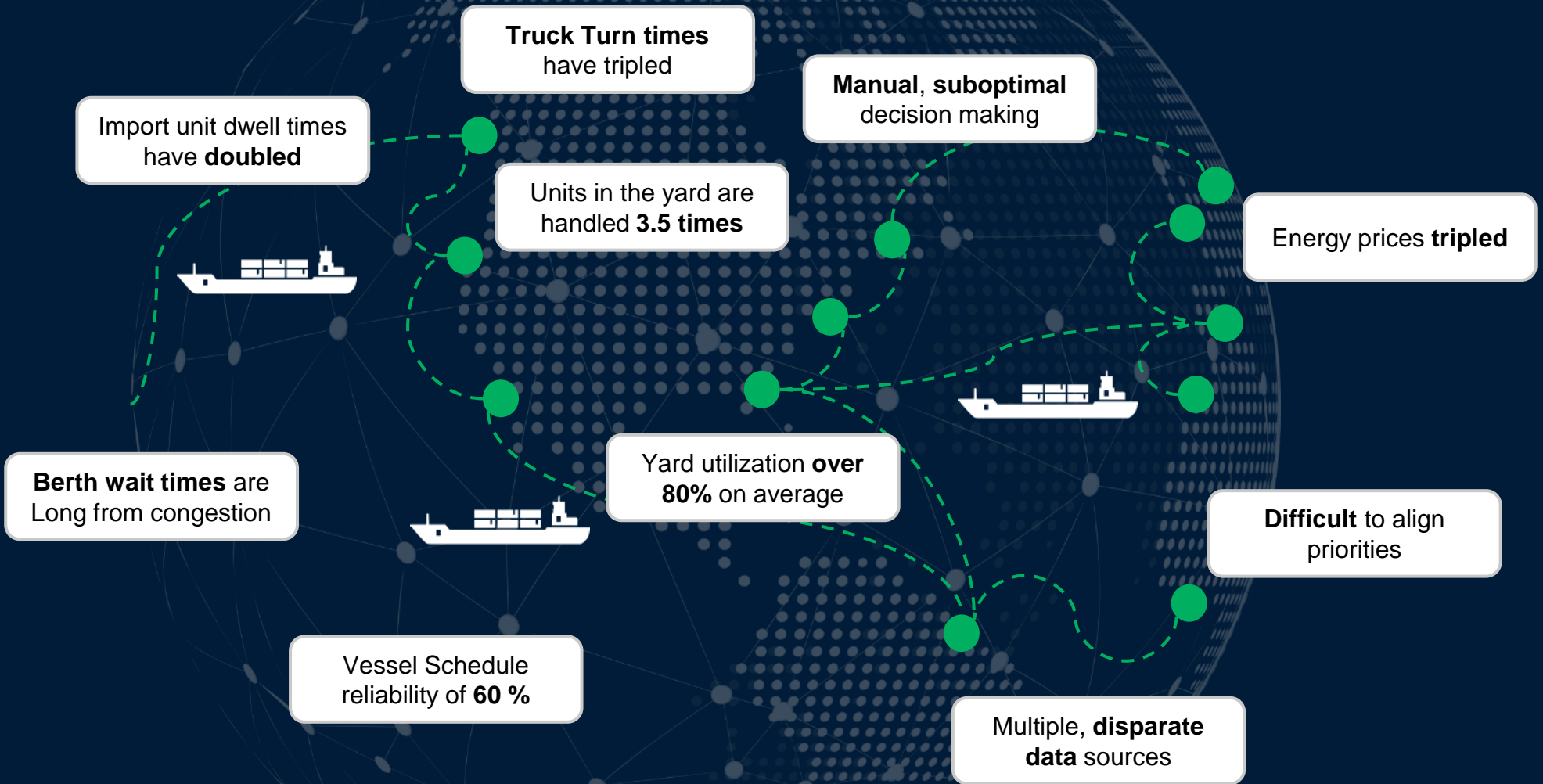
**Better integrate with a complex system (ie. Port community System, customs, BI)**



**Connect multiple systems in the supply chain (ie. N4, MTN, YMS, Octopi, etc.)**



# SUPPLY CHAIN EFFICIENCY OPPORTUNITIES



# Thank You

Stay Connected: Follow Us!



**KALERIS**

[www.kaleris.com](http://www.kaleris.com)



**LINKEDIN**

[linkedin.com/company/kaleris](https://linkedin.com/company/kaleris)  
[linkedin.com/company/navis](https://linkedin.com/company/navis)



**YOUTUBE**

[youtube.com/kaleris](https://youtube.com/kaleris)  
[Youtube.com/navis](https://Youtube.com/navis)



**TWITTER**

[@kalerisofficial](https://twitter.com/kalerisofficial)  
[@naviscargo](https://twitter.com/naviscargo)



**INSTAGRAM**

[@navislp](https://www.instagram.com/navislp)



**NCC**

[collaboration.navis.com](https://collaboration.navis.com)

**Meena Shah**  
**Director, Sales Engineering, EMEA**  
[meena.shah@navis.com](mailto:meena.shah@navis.com)