



# Next-Gen Optimization: Improving Terminal Efficiency with Advanced Technology



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# *The Next-Gen Optimization Mindset*



Manual  
Operations



Rule-based  
automation



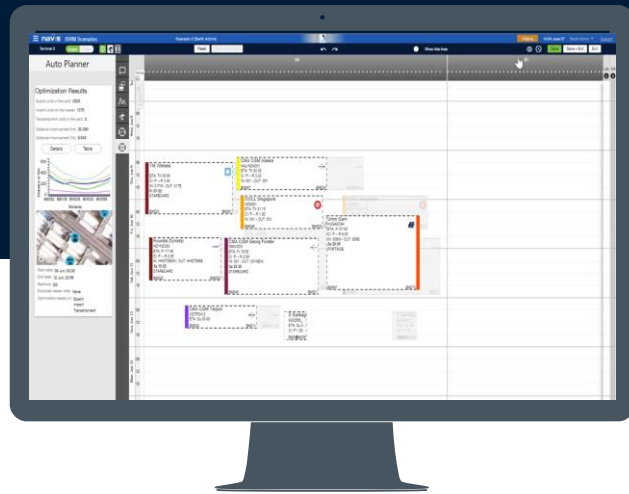
Advanced  
Optimization

*Plug In. Optimize. Scale.*

# Driving TOS Innovation

**Secure | Reliable | Scalable**

With a user-friendly interface so you can move cargo safely and efficiently



**Make smarter business decisions**



**Maximize asset utilization and space**



**Reduce unproductive moves and optimize operations**

Over **30 years** of continued innovation and expertise in terminal operations



# Innovation for mission-critical operations

## THE SOLUTIONS OF THE FUTURE NEED TO DELIVER PERFORMANCE WHILE MANAGING RISK

### ✓ Operational Excellence

- **Automation and optimization**  
For manual and automated terminals
- **Usability**  
Intuitive interfaces accessible from office or field

### ✓ Technology Excellence

- **Performance**  
Evolved to enhance reliability and scalability
- **Security**  
Protecting your data & operations



# Why Optimization, Why Now

## Meeting Terminal Challenges and Needs



### Infrastructure strain & capacity constraints

Need to handle increasing volumes



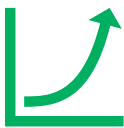
### Labor shortages & rising automation needs

Difficulty finding skilled digital and operational labor



### Environmental regulations

Rising compliance and green technology costs



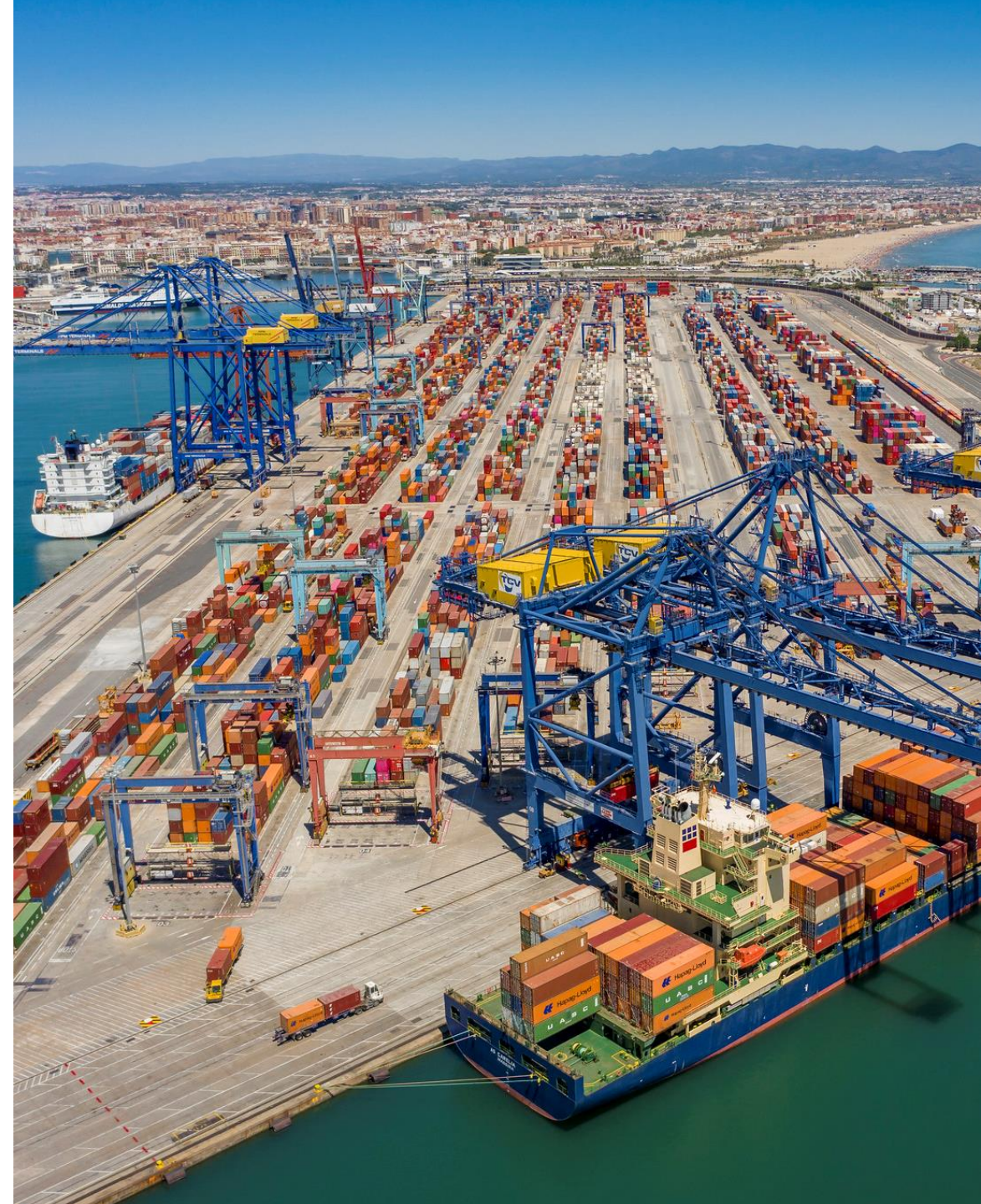
### Supply chain disruptions

Unpredictability due to geopolitical tensions, pandemics, and climate-related events



### Customer expectations & competitiveness

Global terminal operators and shippers demand real-time visibility, reliability, and speed.





# Why Kaleris' Advanced Optimization?



## Proven Turnkey Solution

- Over 200 implementations around the world
- Partnerships with all the main equipment providers in the industry
- Equipment Agnostic with standard integration APIs
- Scalable and Robust Platform for RTG & RMG Terminals



## Accelerated Best in Class ROIs

- Effective decision-making capabilities
- Unique user experience
- Data Driven
- Brownfield Automation



## Protecting your Business

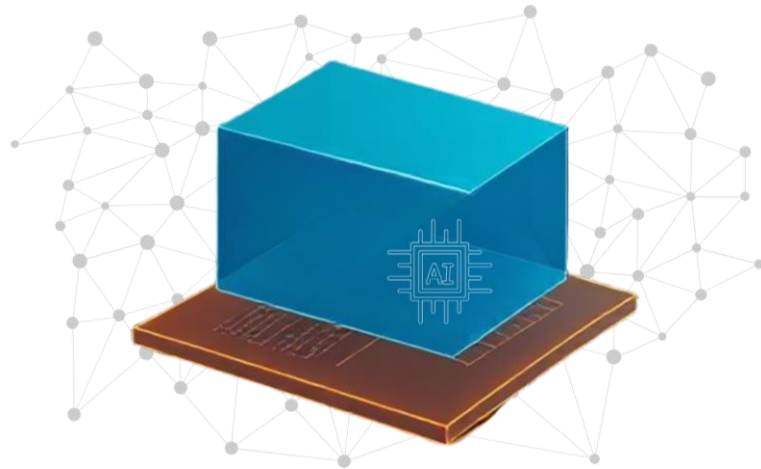
- Navis has been committed to Optimization for over 30 years
- Continuous Innovation
- Ready to scale with the expansion of your portfolio
- A partnership designed around our customers success

# Optimizing your existing terminal



STRATEGIES

## Technology as an augmentation layer



**Amplifying People & Resources:** Leveraging technology to enhance workforce efficiency



**Technology as an Enabler:** Using AI-driven solutions to optimize operations

## Stepwise technology adoption

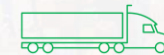
*Enhancing existing solutions without disruption*



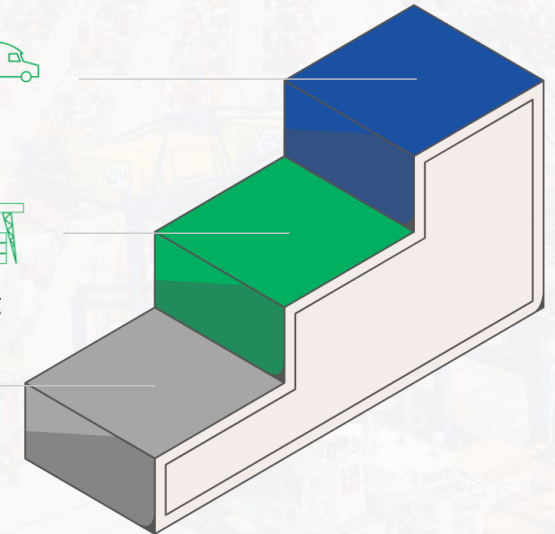
Terminal-wide expansion



Block by block deployment



A subset of fleet



*Deploy in phases, validate impact*



## **Fewer Greenfield Sites**

High costs, land constraints, long ramp-up times.

## **More Brownfield Expansions**

Innovation must happen in live terminals, increasing risk & complexity.

## **New Innovation Mindset**

No luxury of testing in new sites; must embrace agile, low-disruption solutions.

 **Innovation must adapt-modernize existing operations, take smart risks, and move fast without disruption**



# Terminal Optimization Desired Outcomes



## Faster truck turnaround

### Increase:

- Number of transactions
- Laden travel
- Vessel productivity
- Berth utilization

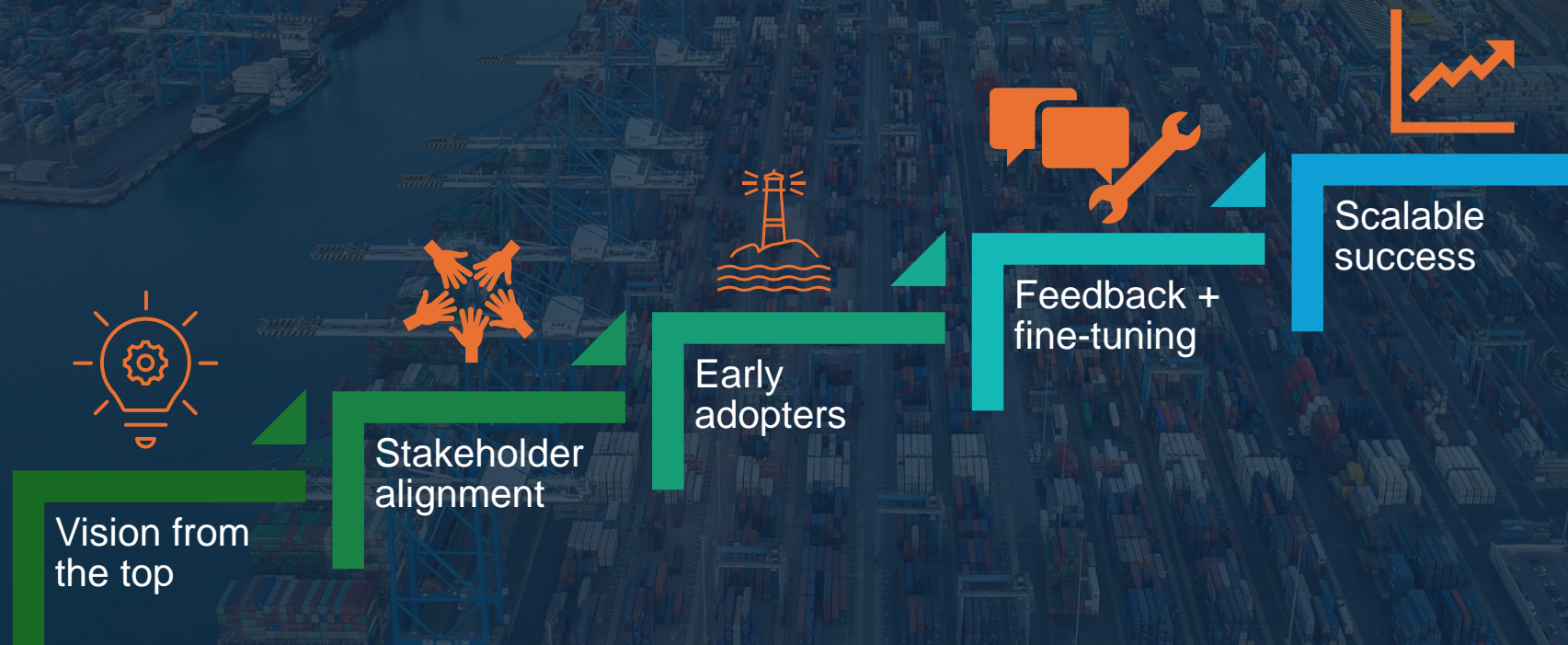


### Reduce:

- Rehandles
- Yard & QC crane waiting time
- Idle time
- Assignment time
- Unproductive moves
- Truck waiting time
- Unladen travel
- Fuel consumption
- Cycle time

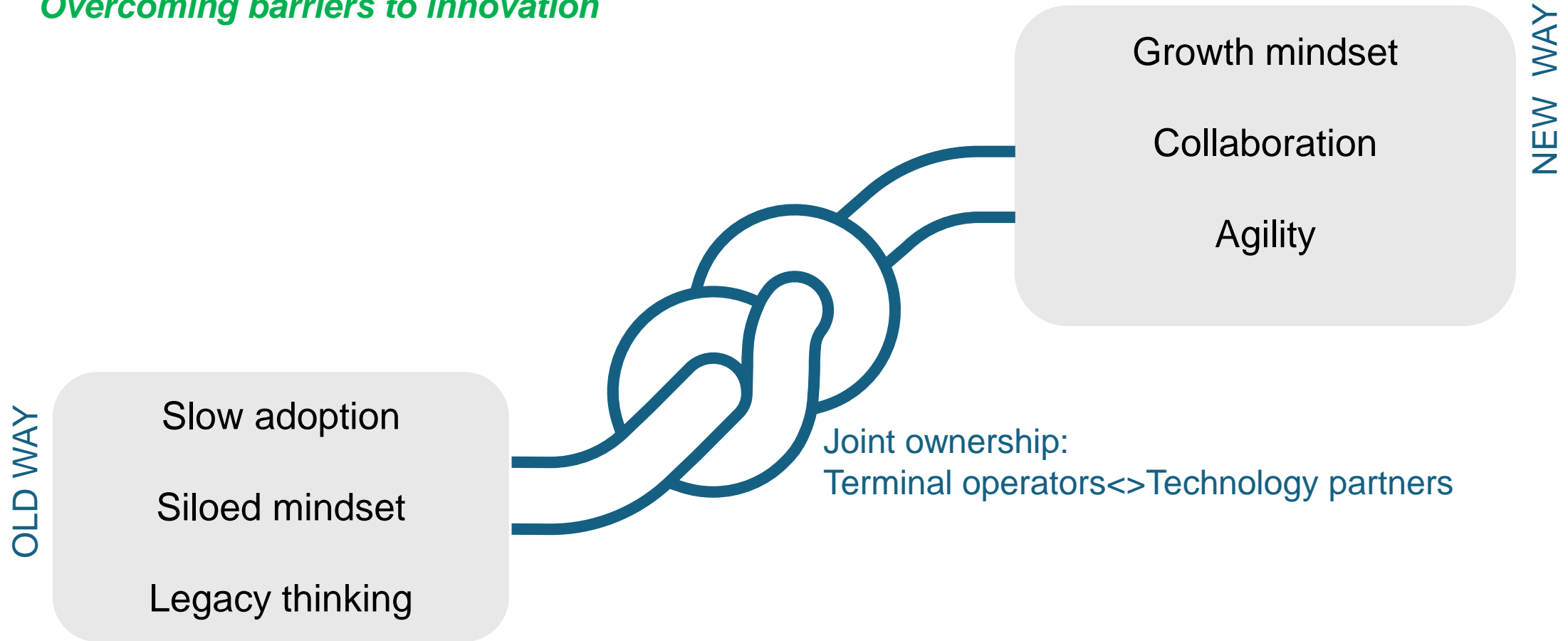
# Outgrowing Legacy Thinking: How Malta Embraced Advanced Optimization with RTG-O

Co-creating success

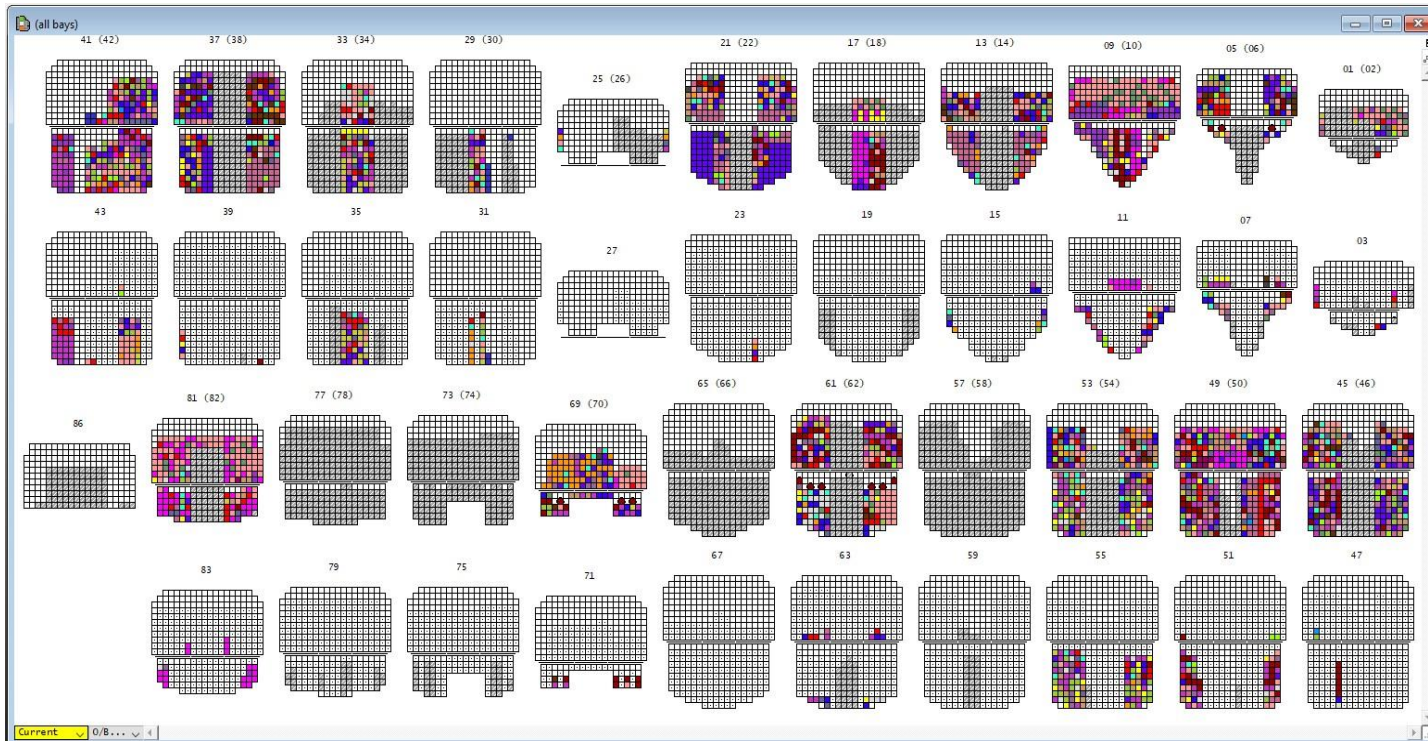


# Mindset Matters

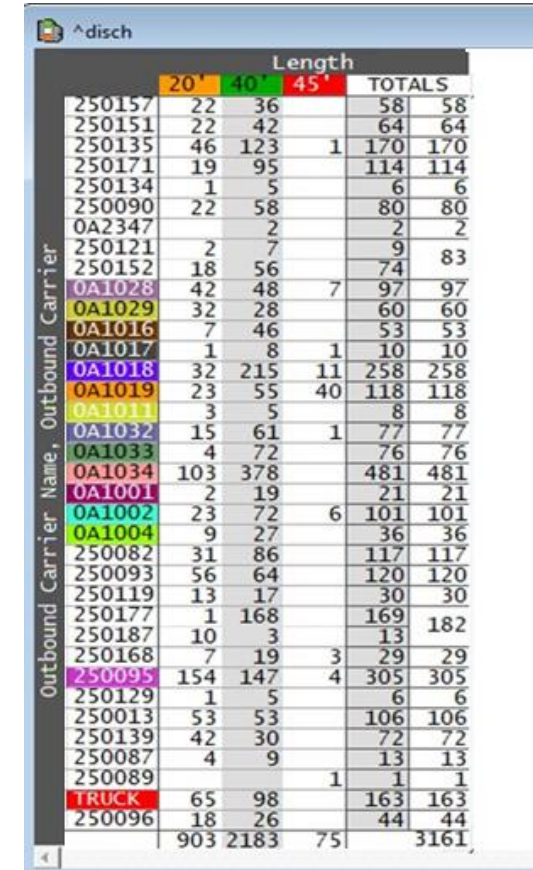
*Overcoming barriers to innovation*



**This is the new way to do this – *Together!***



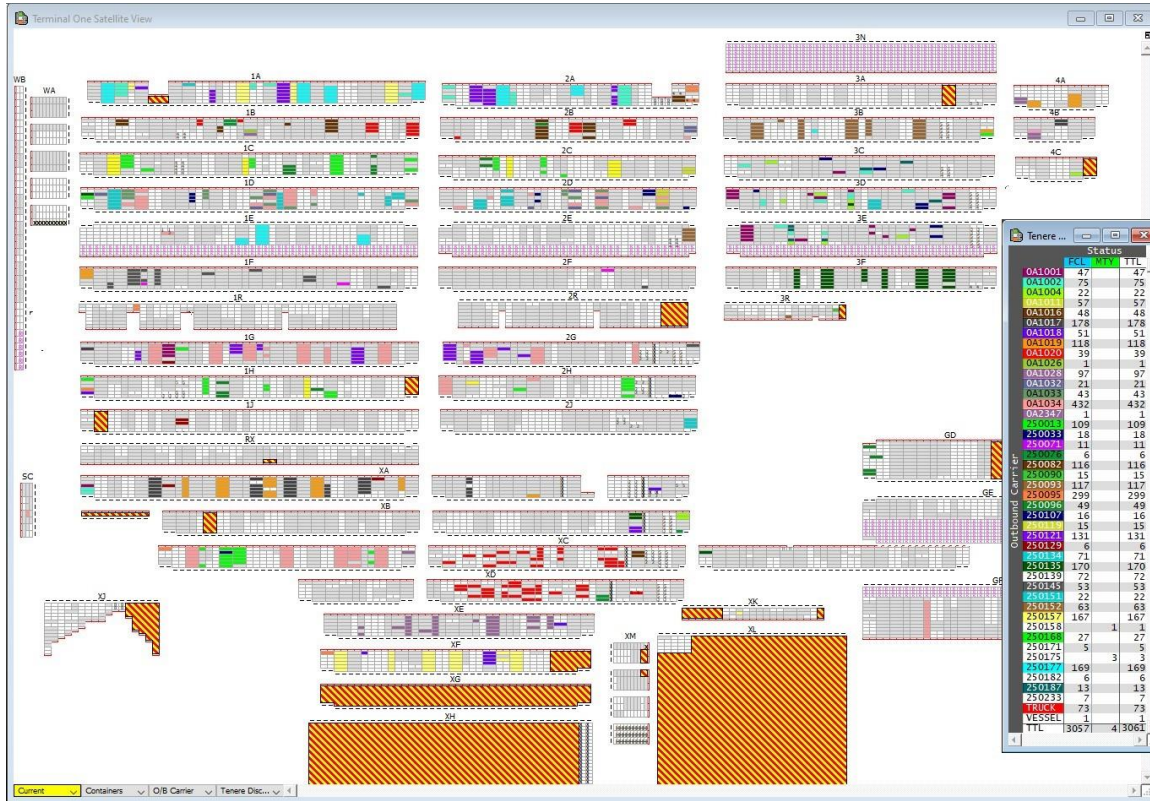
**Sample Discharge Scan Plan**  
3161 units



The figure shows a table titled 'disch' with columns for 'Outbound Carrier Name', 'Length' (subdivided into 20', 40', and 45'), and 'TOTALS'. The table lists various carrier names and their corresponding discharge amounts. The total units are 3161.

Outbound Carrier Name	Length			TOTALS	
	20'	40'	45'		
250157	22	36		58	58
250151	22	42		64	64
250135	46	123	1	170	170
250171	19	95		114	114
250134	1	5		6	6
250090	22	58		80	80
0A2347		2		2	2
250121	2	7		9	83
250152	18	56		74	
0A1028	42	48	7	97	97
0A1029	32	28		60	60
0A1016	7	46		53	53
0A1017	1	8	1	10	10
0A1018	32	215	11	258	258
0A1019	23	55	40	118	118
0A1011	3	5		8	8
0A1032	15	61	1	77	77
0A1033	4	72		76	76
0A1034	103	378		481	481
0A1001	2	19		21	21
0A1002	23	72	6	101	101
0A1004	9	27		36	36
250082	31	86		117	117
250093	56	64		120	120
250119	13	17		30	30
250177	1	168		169	182
250187	10	3		13	
250168	7	19	3	29	29
250095	154	147	4	305	305
250129	1	5		6	6
250013	53	53		106	106
250139	42	30		72	72
250087	4	9		13	13
250089			1	1	1
TRUCK	65	98		163	163
250096	18	26		44	44
	903	2183	75	3161	

**Sample Amount of Second Carrier Nominations**  
Discharge Recap “High Level” – 3161 units



## Second Carrier Nominations Discharge Yard Satellite View

# Growth is a loop: Tune, Learn, Scale, Repeat



Optimization never ends - it matures

**Where are you in this loop?!**

# *Let's shape the future of terminal operations together*

What optimization challenge  
are you solving today?

What's holding your terminal  
back from next-gen  
operations?

# Real-world impact

14,914

quayside moves in a single 12-hour shift

1,420

moves in one hour within that shift

20%

reduction in quay crane waiting time

20%

14%

7%

“

*“The deployment of TT-O has already demonstrated measurable improvements, including reduced deployment, fuel savings, improved cycle times, and increased laden travel. This success showcases the impact of bringing together our talented staff and the Kaleris team to drive the industry forward.” –*

*Joe Schofield, COO of PTP*

11%

reduction in truck deployment

13%

reduction in truck cycle time

20%

reduction in unladen driving distance of terminal trucks

”

44%

faster job assignments with optimized truck movement planning across multiple zones



**Let's Shape the Future of Terminal Operations—Together!**



# KALERIS



## THANK YOU!



Customer Portal: [Community.Kaleris.com](https://Community.Kaleris.com)



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