



# Increasing Operational Productivity and Predictability with Data-Driven Collaboration

# Opportunities for Better Collaboration

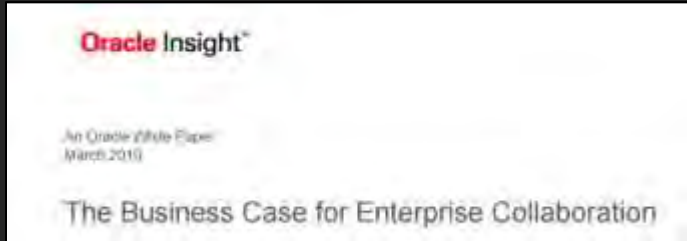
Vessel Lines

Equipment Providers

Port & Trucking  
Community



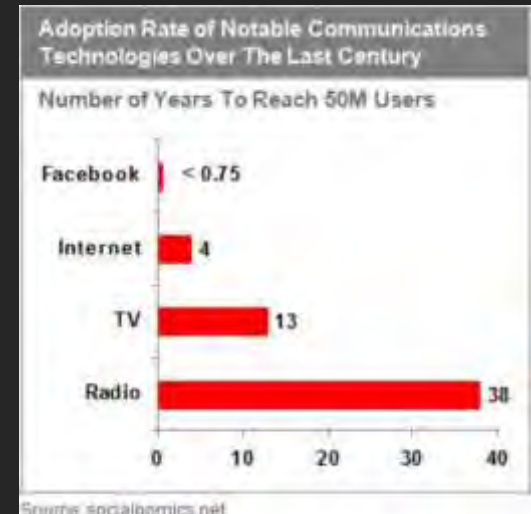
# The Case for Enterprise Collaboration



“Increasing specialization of knowledge-based work has made collaboration within and among organizations more important than ever”

“Collaboration is reported to accelerate the pace of innovation”

“Distributed Expertise: more and more companies consider harnessing the ‘power of the masses’ across functional / geographic boundaries a critical success factor.”



# Terminal Operational Issues and Challenges

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Based on 2015 Navis Customer Survey

- # 1 Improve Productivity
- # 2 Reduce Operational Costs
- # 3 Gate Congestion
- # 4 Staffing Personnel and Learning New Technologies
- # 5 Poor Yard Planning and High Number of Rehandles

“The need for change in the port sector has been more pronounced in the past two years than in the past twenty”

- APM Terminals chief executive Kim Fejfer, April 2016



# Terminal Responsibilities & Opportunities



Vessel Planning



Equipment Scheduling



Yard Planning & Container Inventory



Berth Planning

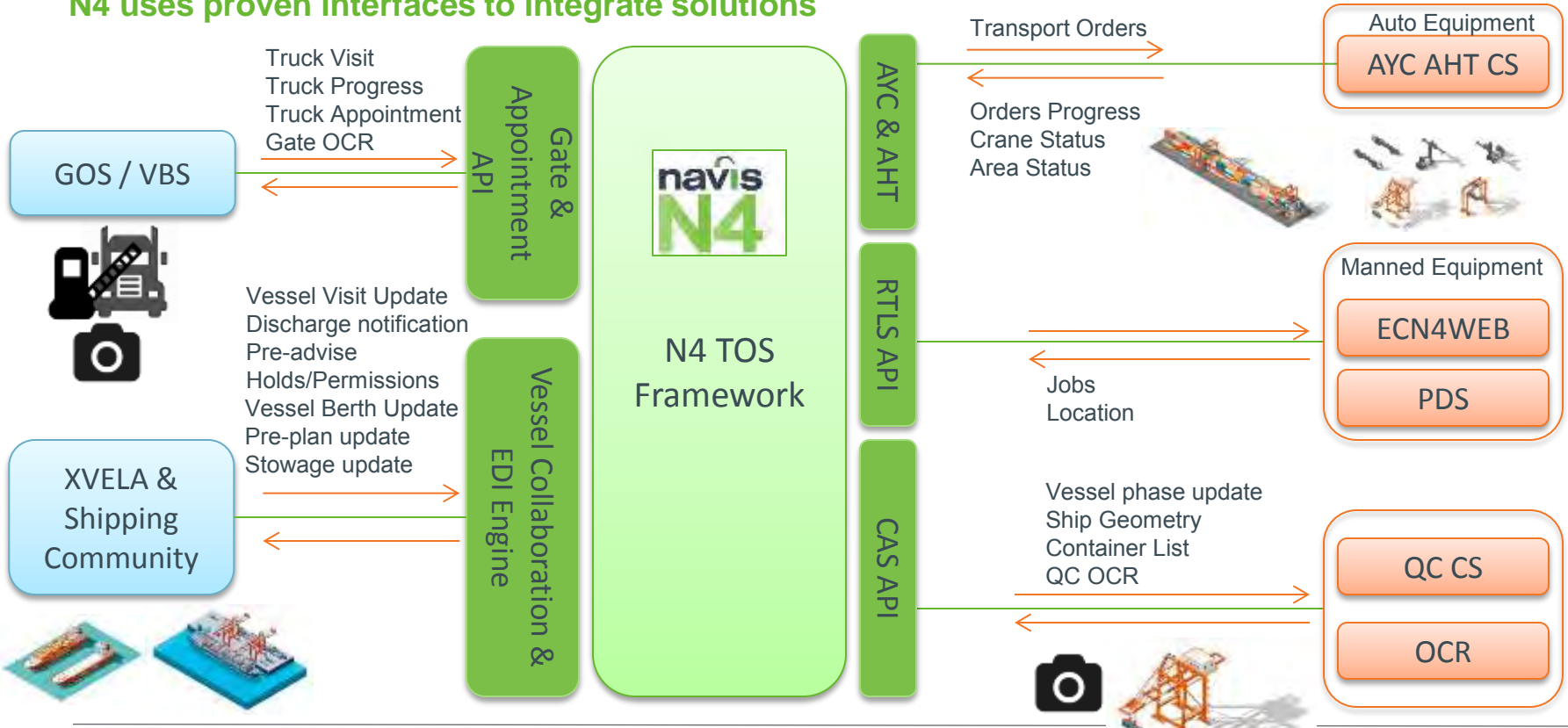


Gate Management

# N4 Platform Solution



## N4 uses proven interfaces to integrate solutions



# Increased Visibility Triggers Action

## Vessel Lines



Stowage, Preplan Status, Load/Discharge List, Vessel Visit Status

Stowage Plan, Container Status, Vessel & Berth Status, Stowage Plan, Housekeeping, Equipment Allocation



## Equipment Providers



Location, Drive-Time, Lifts/Sets, Kinematics

Equipment Scheduling & Dispatch, Dynamic Allocations



## Port & Trucking Community

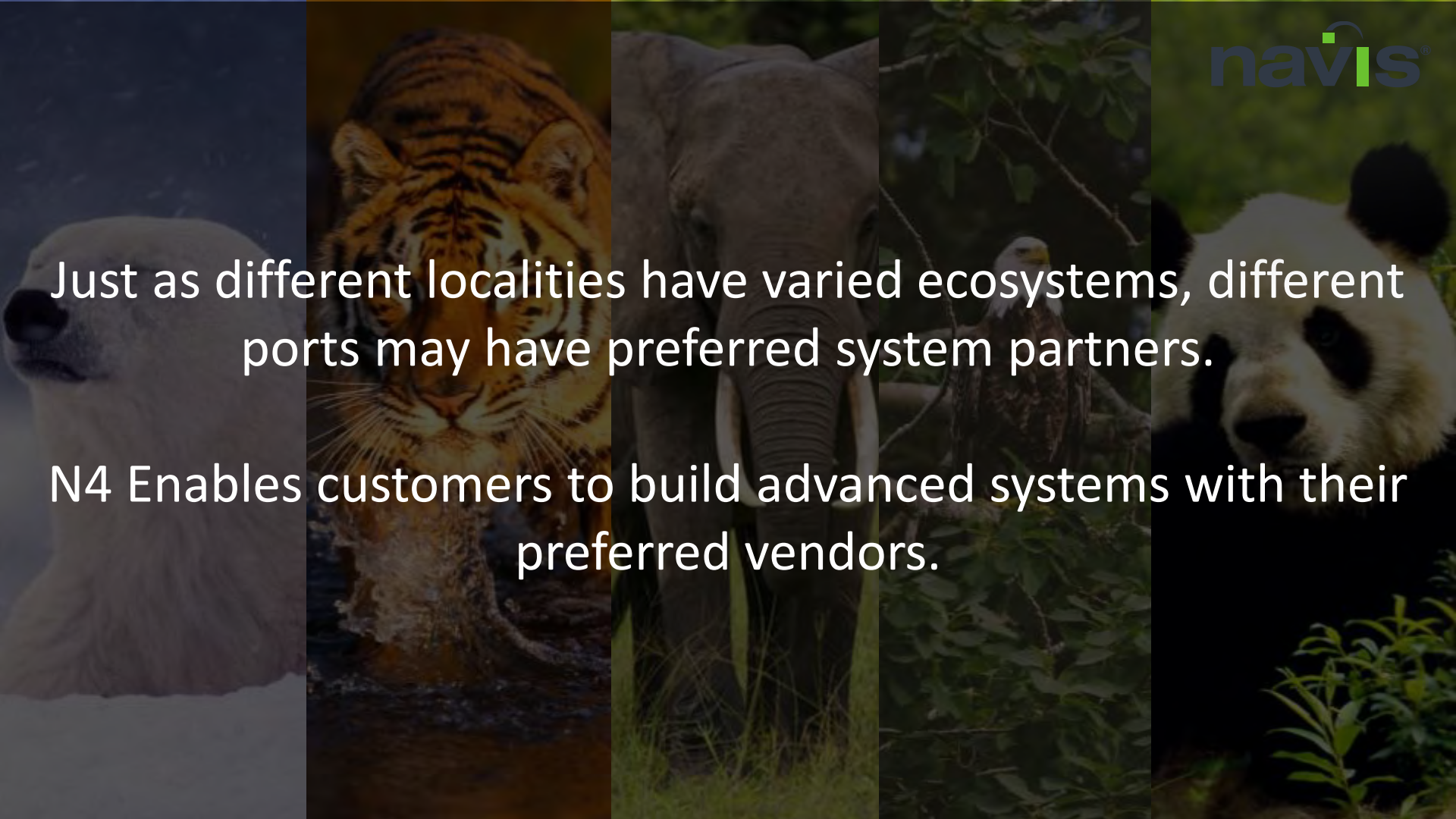


Truck & Container Appointments, Status, Bookings, Truck/Container ID

Import Location, Housekeeping, Equipment Scheduling





The background is a vertical collage of five animal images: a polar bear, a tiger, an elephant, a bald eagle, and a panda. Each image is semi-transparent and overlaid with a dark, semi-transparent rectangular box that serves as a background for the text.

Just as different localities have varied ecosystems, different ports may have preferred system partners.

N4 Enables customers to build advanced systems with their preferred vendors.

# Collaboration Examples with N4



青岛港国际股份有限公司  
QINGDAO PORT INTERNATIONAL CO., LTD.



# Over 150 Sites Run N4





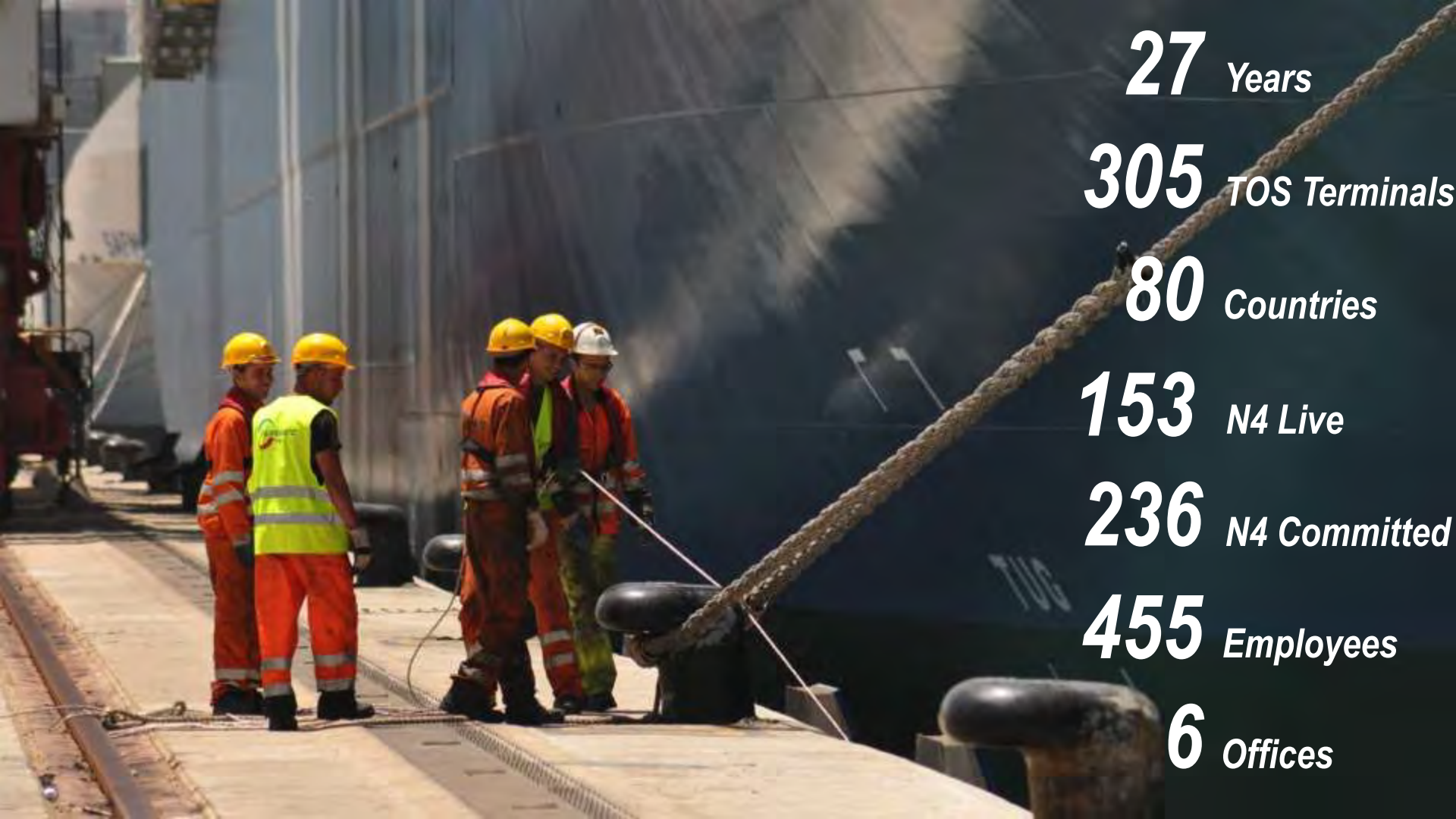


# Navis Operations: Offices









**27** Years

**305** TOS Terminals

**80** Countries

**153** N4 Live

**236** N4 Committed

**455** Employees

**6** Offices

A large black ship is being lifted by a barge on a river. Two workers in yellow rain gear and hard hats stand on the barge deck, looking at the ship. The scene is overcast and wet.

Thank You  
[www.navis.com](http://www.navis.com)

The logo for Navis, featuring the word "navis" in a dark blue, lowercase, sans-serif font. The letter "i" is replaced by a green vertical bar. Above the "i" is a small green square with a white dot inside, and a dark blue curved line arches over it. A registered trademark symbol (®) is located to the right of the word.

navis®