

AI Solutions: Solving Challenges in the real world

- June 10, 2021 by Jay Pandya

Presentation to:

 Sponsored by  

WEBINAR **Thursday 10 June 2021**
AI SOLUTIONS: SOLVING CHALLENGES IN THE REAL WORLD

Central European Summer Time 12pm - 1 30pm
United Arab Emirates 2pm - 3 30pm
India 3 30pm - 5pm
Hong Kong 6pm - 7 30pm

Zoom Webinar ID: 833 2486 8171

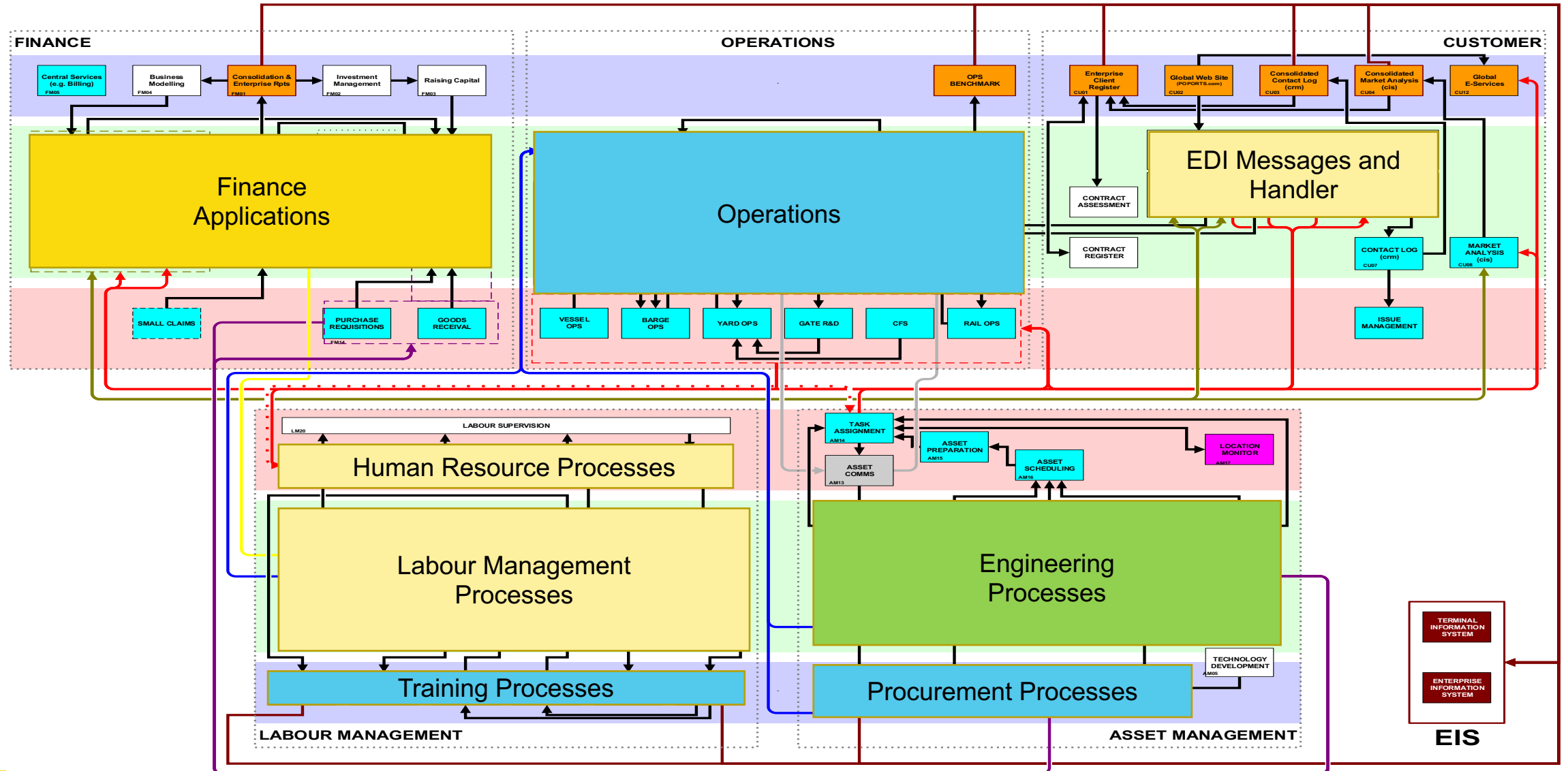


Agenda

“ The pain-points discussed in this session are based on 20 years of personal experience, it is assumed that they may apply to other containers terminal ”

- **Background**
- **Key pain-points with container terminals**
 - **Waterside Operations**
 - **Yard Operations**
 - **Landside Operations**
 - **Back Office Operations**

Background



Pain Points : Waterside Operations

- **Unpredictable vessel arrival times / problem increases with the larger vessels**
 - **Management of berthing slots becomes impossible**
 - **Shipping Lines priority to keep too a schedule may result in unexpected discharging a large number of containers at various ports**
- **Accurately forecasting the equipment and labor requirements for each vessel operations**
- **Ensuring optimal route for moving containers from Vessel to the yard**
- **Poor data quality from central planners and previous port of call**
- **Efficiently managing operations in case equipment breakdown**

Pain Points : Yard Operations

- **Many terminals are close to or at capacity, resulting in compromised decking decisions and dramatically increasing the number of rehandles**
- **Uneven distribution of work across the yard cranes resulting in poor performance and utilization**
- **Container yard grooming requires constant management and expertise**
- **Predicting import and export dwell times for containers crucial assigning decking positions in the yard. Currently all models available are inefficient**
- **Customers taking advantage of terminal storage rules for empties**

Pain Points : Landside Operations

- **Unpredictable external truck arrival times, even if a VBS system is operational**
 - **Resulting in unnecessary congestion**
- **Decking containers for optimal landside operations**
- **Rigid prioritization of waterside operations over landside regardless of waterside performance**
- **Further optimization for trucks with multiple transactions**



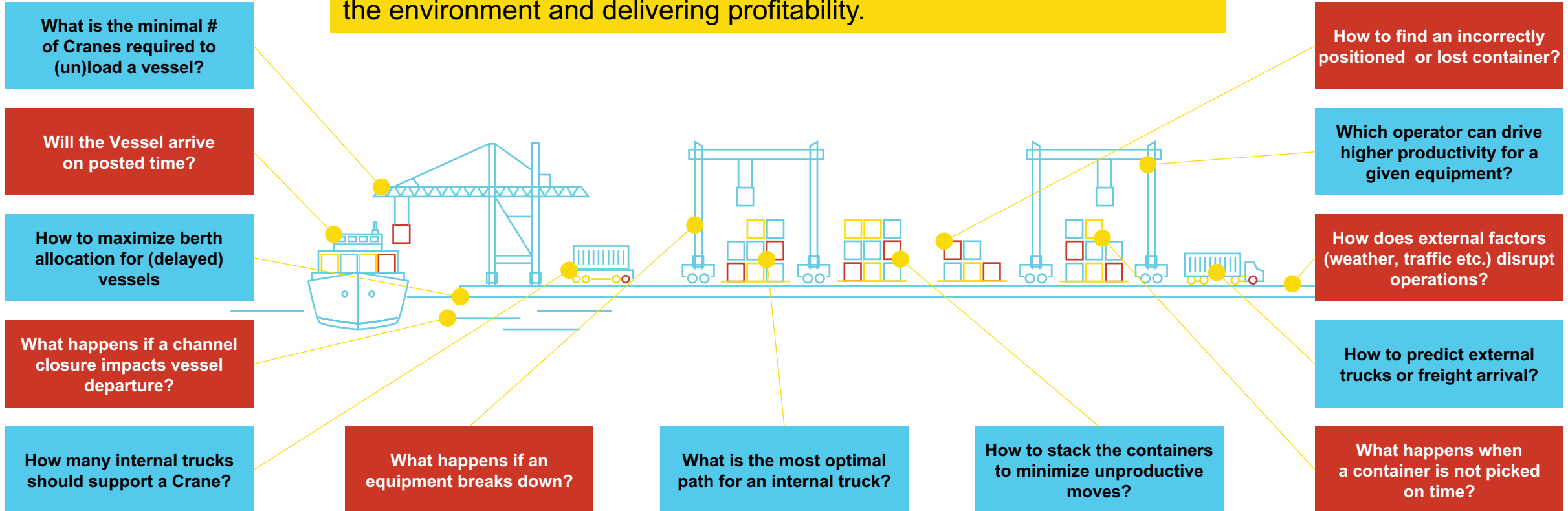
Pain Points : Back Office Operations

- **Operational delays magnifies the problems of Labor Management**
 - **Resulting in labor shortages and further delaying operations**
- **Over-Stocking spare parts inventory in stores**
 - **Ideally the terminal should carry spares based forecasted equipment breakdowns**
- **Poor communications between terminal departments**
 - **Normal process over email, which can be missed, unclear or not understood**
 - **Ideal situation is Intelligent direct communication between systems**
- **Expect the unexpected, Covid-19 has highlighted serious flaws in terminal operations by remote working and limited staff available on site**



Uncertainties and optimizations Summary

Despite these challenges, ports are tasked with optimizing service to the lines and truckers consistently all while considering their impact on the environment and delivering profitability.



UNCERTAINTIES

OPTIMIZATIONS



Thank You

As for the future, your task is not to foresee it, but to enable it"



Antoine de Saint-Exupéry

French writer, poet, aristocrat, journalist and pioneering aviator.