

Port Authority Of Guam  
Maritime Resilience and Innovation Summit October 22, 2025



# Enhancing Port Decarbonization with Real Time Asset Data

Integrating Emissions Monitoring, Engine Diagnostics



Jacobs





# About IGO Solutions

AI-First Innovation Partner for Port & Logistics Operations



## Founded

19+ years across  
Australia, UAE, UK, NZ  
& India



## Solutions

Proven suite tailored to  
port pain points



## Innovation

AI-led disruptor with  
Lidar, RFID &  
automation tech



## Expertise

700+ man-years in  
ports, shipping &  
logistics



## Global Reach

Projects executed in  
Europe, Middle East,  
Africa & Asia-Pacific &  
India



## Team

80+ experts. New 350-  
seat center in Trichy,  
India by 2027





# Agenda

1. Introduction
2. Data Analytics: Decarbonization Analytics for Port Equipment (DAPE)
3. Solution Development
4. Implementation Roadmap
5. Next steps



# Decarbonization Analytics for Port Equipment (DAPE)

## Port of Everett Pilot Study



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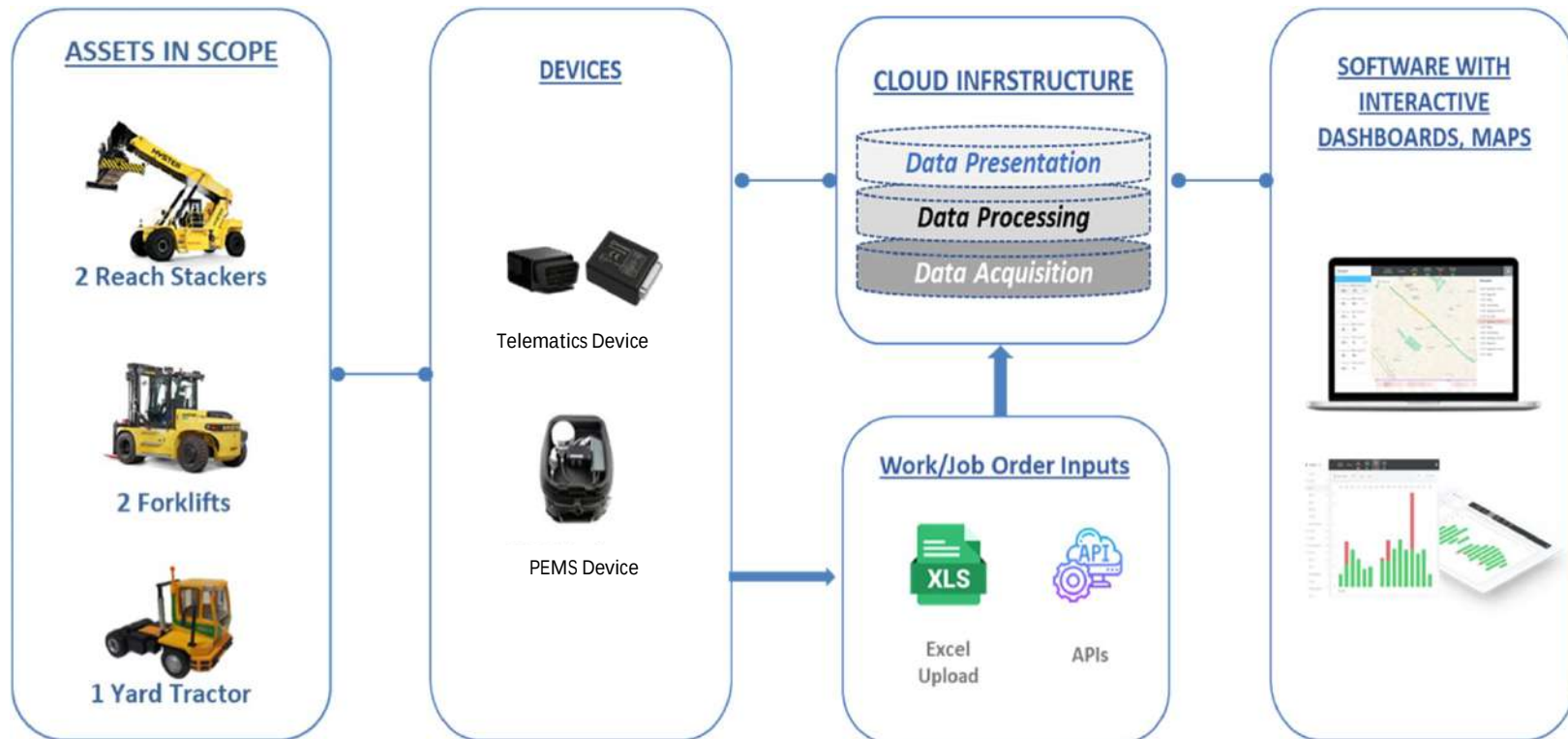


# What is DAPE?

- First-of-its-kind platform which captures and analyzes real-time emissions and equipment data.
- Combines telematics + Portable Emission Measurement Systems (PEMS) data into one scalable, cloud-based dashboard.
- Provides live insights on equipment emissions, movement, and health.
- Enables data-driven decision-making for decarbonization, maintenance, and operational efficiency.



# How Does it Work

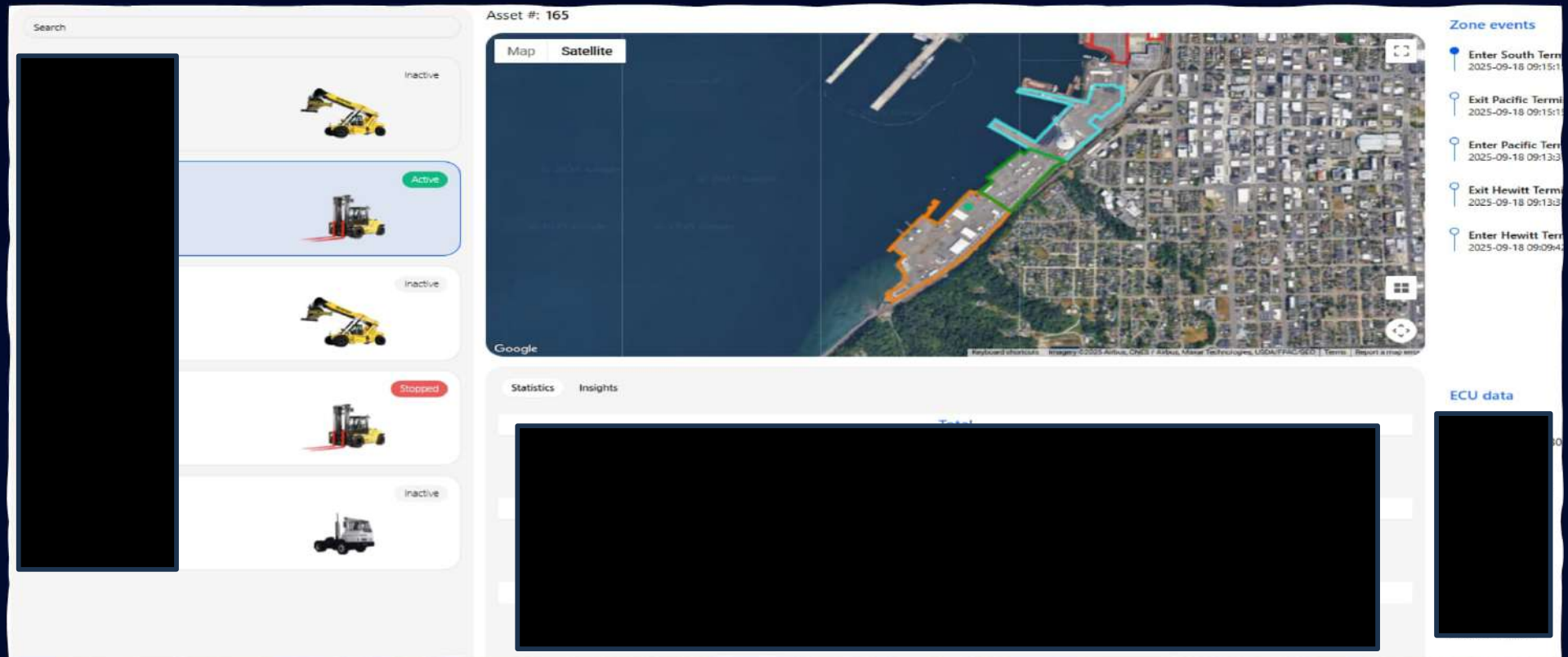




# Why Develop DAPE?

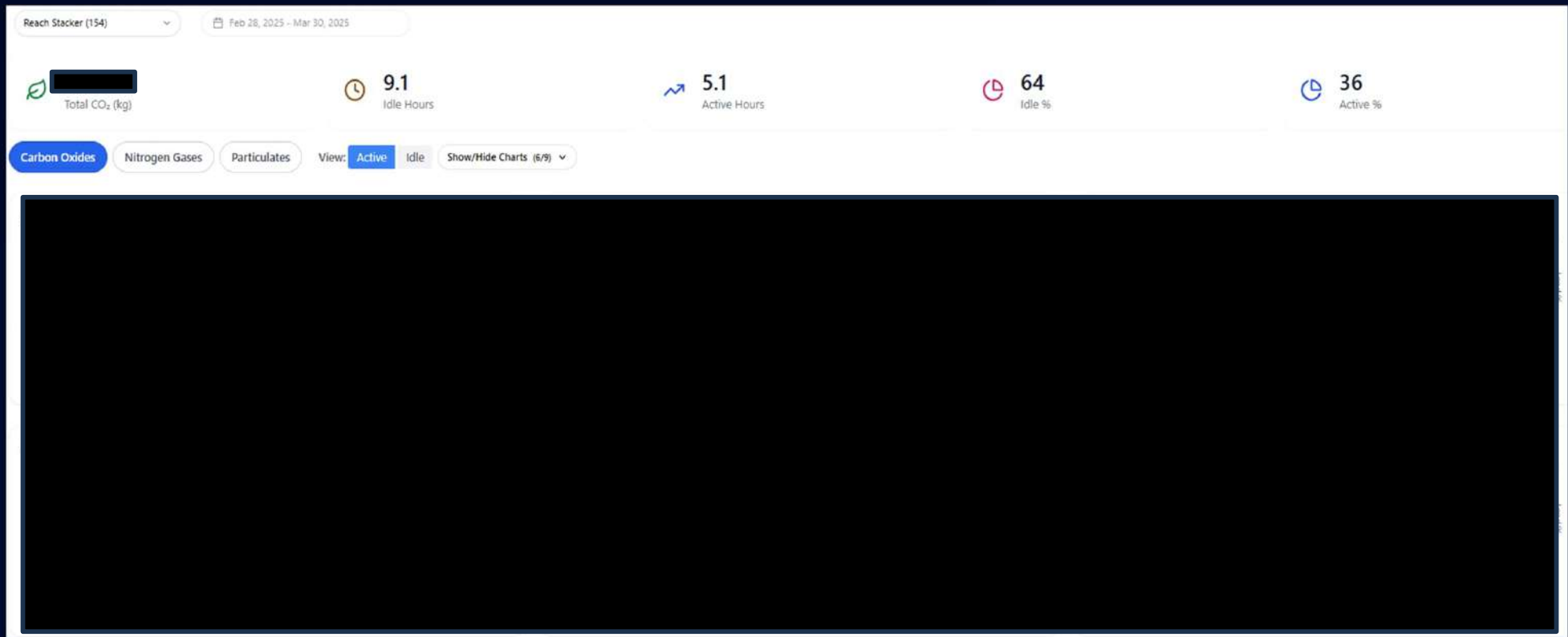
- You can't manage what you don't measure.
- Challenge outdated inventories that overlook real-world variables unique to port equipment or any other heavy industries.
- Unlock operational insights by quantifying factors like idle time, routes, and operator behavior that drive emissions.
- Enable data-driven planning for decarbonization and smarter infrastructure investments.

# DAPE Dashboard - Telematics





# DAPE Dashboard - Emissions





# DAPE - Telematics Data





## Key Takeaways

- Real-time emissions and operational data provide accuracy beyond traditional inventories.
- Idle time reduction offers immediate emissions and cost savings.
- Plug-and-play technology works across old and new equipment without major infrastructure changes.
- Data visualization tools (heat maps, dashboards) drive operational efficiency and spatial planning efforts.
- Future prediction of emissions and scenario simulation analysis.



In case of any queries, feel free to reach out:

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# THANK YOU



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