



A leading global port group and a trusted partner to cargo stakeholders around the world.

PSA SINGAPORE: *World's Busiest Transhipment Hub*

Our flagship with the scalability and capacity to meet the present and future needs of liners and shippers.



PSASG

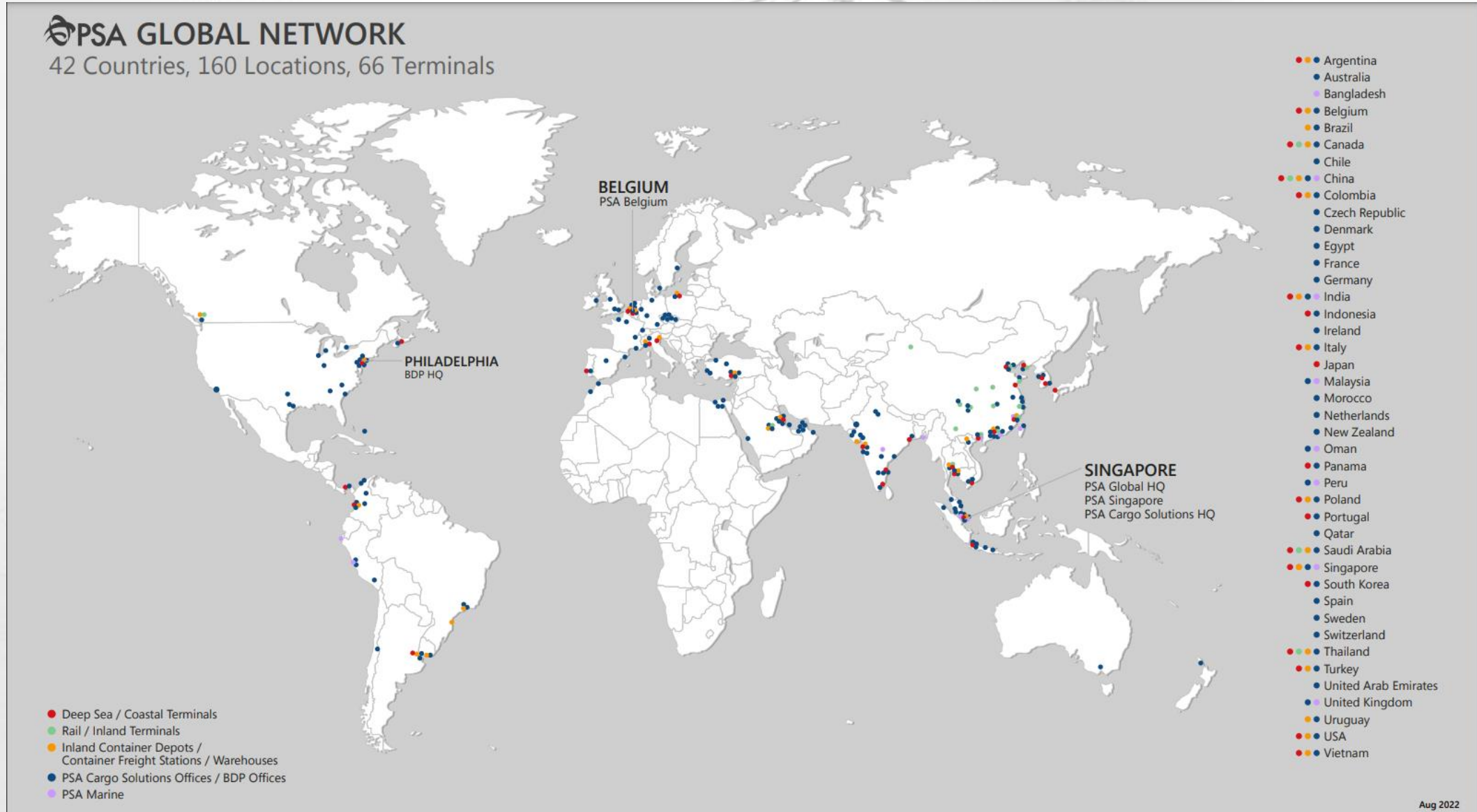
- Handled 37.2M TEUs in 2021

TUAS TERMINAL

- Officially opened on 1st Sep 2022
- 65M TEUs* annual capacity
- Advanced port technologies

*Upon completion in 2040

GLOBAL FOOTPRINT: OVER 66 TERMINALS IN 42 COUNTRIES



Where Are We?

PSA Resource Hub (PSA RH)



Overview



PSA RH Level 2



Solution Partner's Toolbox Briefing at RH

- For synergy and close collaboration, PSA RH is an integrated facility housing our Solution Partners, PSA Lashing and Prime Mover Resource Team
- **Level 1**
 - Workers' locker rooms
 - Open area used for daily mass toolbox briefings and events
- **Level 2**
 - Site offices and pantry area for our individual Solution Partners and PSA Resource Team
 - Rooms available for briefings, meetings and discussions

Our HSSE Policy



PSA HSSE POLICY

At the heart of PSA lies a strong, unwavering commitment to provide our people with a safe, secure, healthy workplace & to promote sustainable development in the communities we operate in.

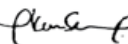
As an industry leader, we will continually upgrade our HSSE practices & performance & be an exemplary corporate partner on HSSE matters.



OUR COMMITMENT

1. All PSA companies, solution partners & joint venture partners under our operational control manage HSSE in line with this policy
2. They comply with all applicable legislations & regulations
3. PSA gives due consideration for HSSE issues in all commercial, business & operational decisions
4. All necessary HSSE measures must be entrenched in our corporate policies, procedures, programs & practices
5. HSSE performance forms a part of staff's appraisal & rewards system
6. We promote a culture where our employees share our commitment towards HSSE
7. PSA continually improves on its HSSE performance through its HSSE management framework



Cheang Chee Kit
Head of Health, Safety & Security, SEA


Lawrence Ng
Regional Head IT, SEA


Kwong Wai Yan
Regional Chief Finance Officer, SEA


Nelson Quek
Managing Director Container Business

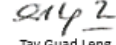

Philbert Chua
Managing Director Container Business


Ng Kok Cheong
Head of Human Resource

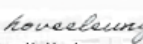

Seow Hwee
Head of Cargo Solutions Business, SEA



Ong Chiew Suan
Head of Corp Branding & Commercial SEA

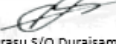

Ong Kim Pong
Regional Chief Executive Officer, SEA

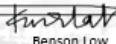

Tay Guad Leng
Head of Procurement



Alvin Foo
Head of New Technologies & Sustainability



Ho Vee Leung
Head of Infocomm Technology and Data


Danny Phua
SPWU President


Arasu S/O Duraisamy
General Secretary SPWU


Benson Low
General Secretary POU

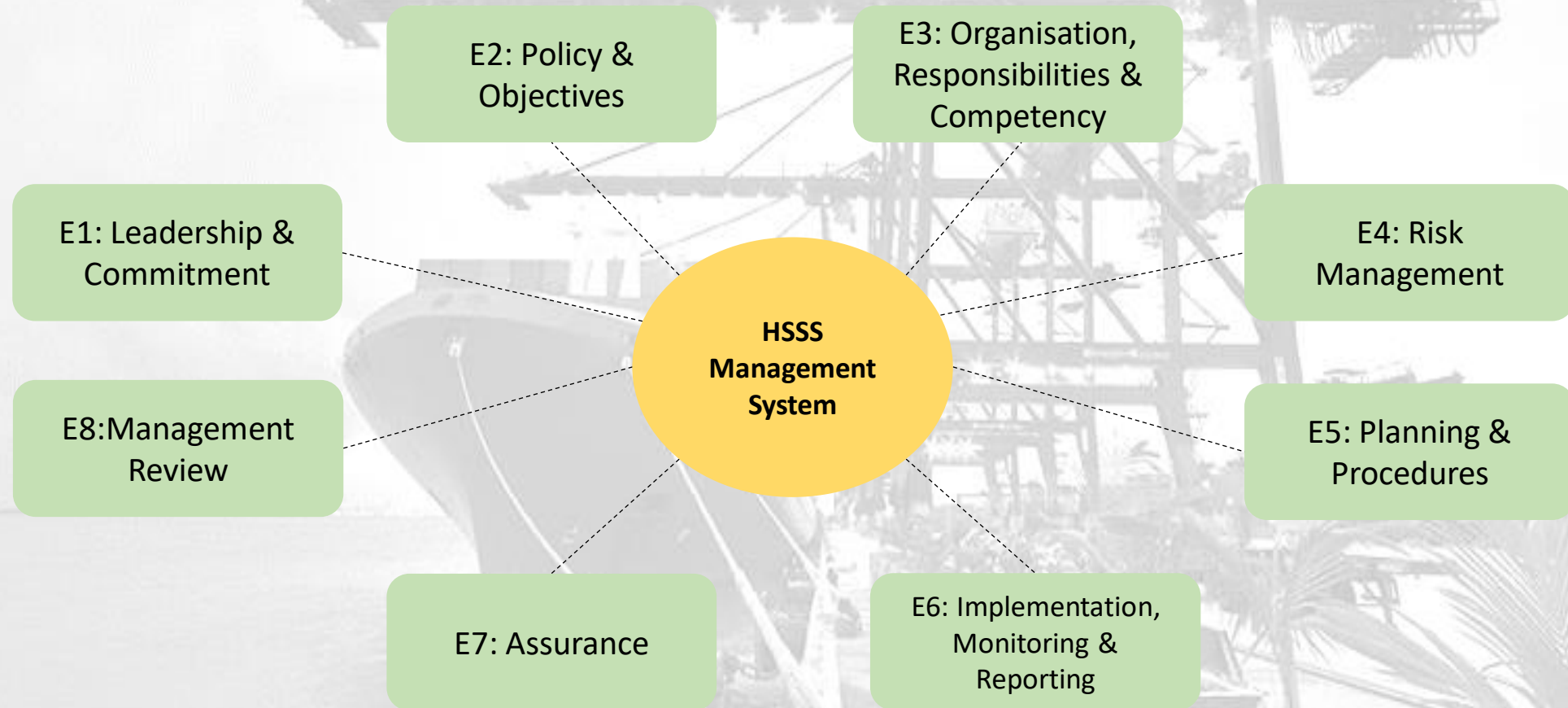

Benjamin Tang
POU President


Cheryl Ong
Head of Finance



HSSS Management System

- ❑ With a strong HSSS management system, we have inculcated an eco-systems for continuous improvement
- ❑ Success factor for the sustainability of supply chain



Involvement with External Agencies

Ministry of Manpower, WSH Council, Singapore Police Force, WSH Institute etc.



**MINISTRY OF
MANPOWER**



WSHCOUNCIL



**SINGAPORE
POLICE FORCE**

SAFEGUARDING EVERY DAY



**Haulier Engagement with MP Melvin
Yong & Traffic Police**



**PSA RCEO at WSH Conference
2022**



**Joint Safety Briefing with Traffic Police
for Haulier Drivers**



**MOM STO Check at Keppel
Distripark**

PSA Safety Time-out (STO)

PSA Management taking greater ownership - engaging the ground to ensure compliance to safe work procedures



STO by MD and DyMD at Yard Crane Engineering Bay



Night STO by Head HSS SEA and Safety & Health Department (SHD)



STO by MD with Lashing Specialist at PPT3



STO by Head Cargo Solution Business SEA at PPAT



STO by P24SE Management with Prime Mover Driver



STO by MD and DyMD at Engineering Store

Our 3 Thrusts



Strengthen WSH
Ownership

FISH!
PHILOSOPHY



Culture



Enhance Focus on
Workplace Safety &
Health



**Feel the
Ground**



Promote
Technological-Enabled
WSH



**Embrace
Technology**

Thank You!



WSH efforts and initiatives

Leveraging on Digitalisation to Reinforce WSH



Vehicle Telematics & Video Analytics to Inculcate Safe Behaviour through Surveillance

Vehicular Telematics

Monitoring of vehicle location, movement, status & handling to prevent accidents

Video Analytics

Process digital video signals using machine learning to perform safety checks



Ensuring Safety Through Digitalisation



Correction through detection



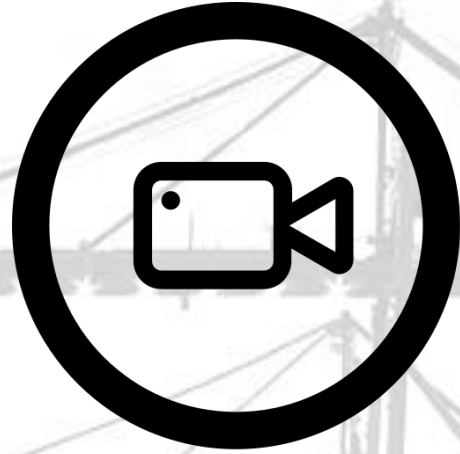
Prevention through surveillance



Recognition of safe working behaviours



Education to change behaviour



Video Analytics

Live Implementation

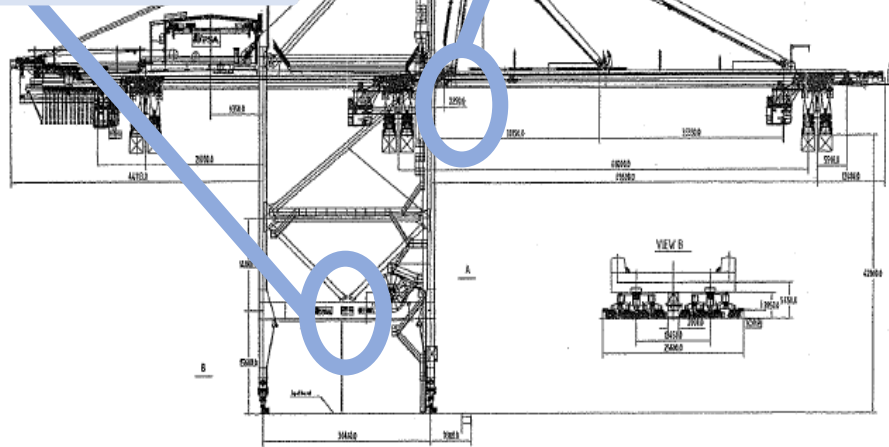
Video Analytics For Lashing and Wharf Operations at PPT456

6 scenarios were machine learnt and existing camera infrastructure will pick up unsafe behaviour from these scenarios...

QC WOS Camera



QC Front Camera



1 Detection of STA doing lashing/unlashing work

2 Detection of one-man lashing

3 Detection of no life-jacket at extreme row

4 Detection of workers within 2 container-width distance from spreader

5 Detection of >2 personnel on spreader

6 Detection of improper PPE

Sample Detections

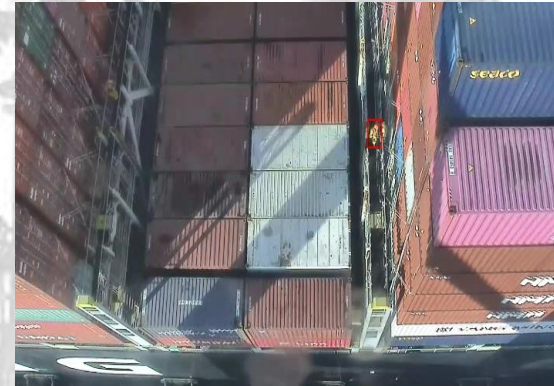
Of Non-Compliance Activities

Non-Compliance to 2-Container Distance



Worker doing tightening on near side of adjacent bay, and not maintaining 2-container distance

Non-Compliance to Extreme Row/2-Men Lashing Requirement



Worker observed to be doing 1-man lashing

Non-Compliance to PPE Requirements



Improper PPE (no helmet) by WOS

What's Coming?

On-going Trial on Video Analytics for Traffic Operations In the Port

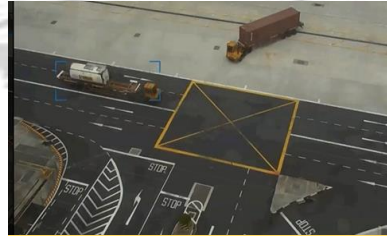
Scope of Video Analytics:



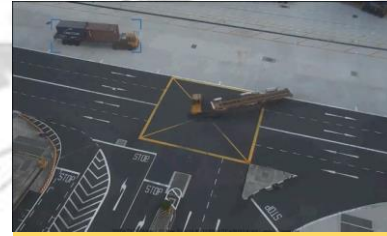
Detection of driver not following traffic rules



Detection right turn on left turn only area



Detection of driving in backreach area



Detection of not stopping at stop line



Detection of driving in opposite direction



Detection of illegal turning

Example:



Case of travelling against road markings
(making a left turn on a right turn lane)



PM Telematics

PM Telematics Overview

Covering Safety, Fleet Management and Hotspots

Safety



Hard Braking



Speeding



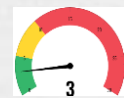
Hard Acceleration



Forward Collision Warning



Fast Cornering



Individual Driver Safety Behaviour



Drowsy Driving

Fleet Mgmt.



System Health Check



Fleet Availability



Consumption Tracking

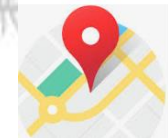


Idle/Waiting Times

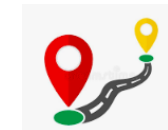


Location Tracking

Hotspots



GPS Tracking



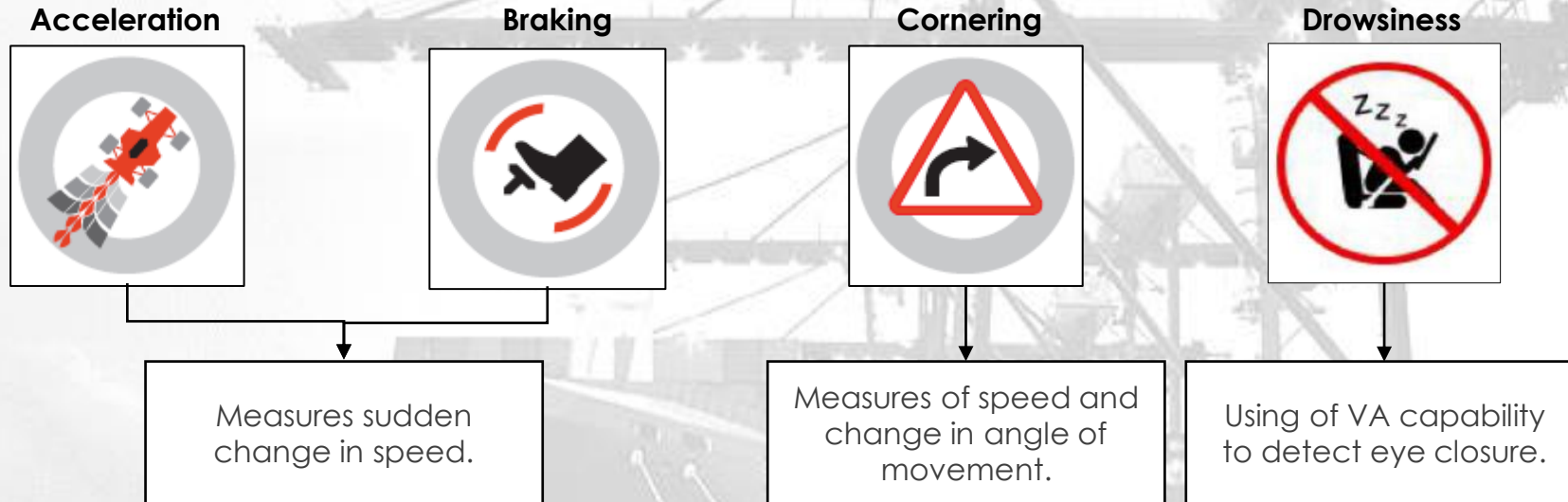
Route Replay of an Event for Coaching – On Map & Video



Location of At-Risk Events by Density Zones

4 Core Telematics Indicators

ABCD



Driver	ID	Org	Dept	Safety Level	Safety Score	Total Events	Driving Duration	Braking	Acceleration	Cornering	Drowsiness
BALAN PRAKASH	CLSBPK	PSA	PMRD	Good	1.10	1	10-56:07	1	0	0	7
CHAN CHEOW YIE	CLSCCY	PSA	PMRD	Moderate	7.90	4	8-21:02	0	2	2	0
CHEONG MING JI	CLSCMJ	PSA	PMRD	Poor	10.04	8	10-45:37	0	6	2	14



The drivers and events depicted in this video are fictitious.
Any similarity to any person, living or dead, is purely coincidental.

Thank You!