



Transport Technology

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Efficient freight and port terminal systems

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# Introduction

**BACKGROUND** – Who we are

**EFFICIENT FREIGHT AND PORT TERMINALS** – Why it is important?

**PROJECT GENESIS** – Searoad (Australia) objectives

**CHALLENGES** – Why - to some extent- it has been difficult?

**DELIVERABLES** – What has been implemented and what are the key benefits?

# E-Dea at a glance

## MULTIPLE MARKETS

IT Solutions for maritime industry connecting 170 ports and 23 countries across EU, America, AU and West Africa

## INTERNATIONAL FOOTPRINT

90% of our Revenues come from international contracts

## HIGH MANAGED VOLUMES

>40 million pax and >15 million vehicles yearly

## SPECIALIZED TEAM

50+ highly technology and business skilled employees



# Efficient freight and port terminals



**Efficient freight and port terminal systems** are crucial components of the global supply chain, as they play a vital role in the movement of goods and commodities



Main Benefits of an optimized port are **cost savings, reduced congestion and emissions, shorter transit times,** eventually **enhanced overall productivity**



This is achieved allowing hauliers to manage directly the entire flow until the arrival at the ports and through **advanced planning and scheduling, real time tracking and visibility**



**Intermodal transportation and PMS** (integrations of container tracking, berth management and Customs) are also important aspects for an Efficient freight and Port terminal system



Periodical **Infrastructural investment** are required (expansion of berths, modernization of equipment, and improvement of road and rail connections) to ensure that the port can handle growing volumes efficiently.



**Predictive analysis** analytics and **machine learning algorithms (ML)** to forecast demand, optimize routes, and predict equipment maintenance needs can help in proactive decision-making and resource allocation.

# Project background



Family-owned ferry and logistic company with a **+100 years heritage**



**Leading maritime player** to move goods between Tasmania and Australia



**Two Ro-Ro ships** (2016 and 2023), 2 sailings per day, approx. 10h sailings



Most of the **processes were managed manually** (with paper), very time consuming, and inefficient



Need more control by **automating processes** and replacing obsolete technology. Also required to allow **hauliers to manage directly the entire flow** until the arrival at the ports



Required a reliable proven track Cloud based, **integrated solution to manage both reservations and TOS activities** for trailers and containers



PoM\_New-Webb-Dock-Automated-Container-Terminal



# Challenges



**+11h time difference**, during full strict Covid-19 restrictions, the **entire project has been managed remotely**



Specific cargo loading requirements for containers, several port assets and ship equipment



**High degree of customizations** to the standard system



Shift to a full IaaS model on Oracle Cloud from a traditional on-premise installation



**Important dependencies with infrastructural port enhancements** for the GOS part, to be managed with the integration to a third-party



**Advanced re-routing functions (in bulk)** of vehicles/containers which have already been integrated to a future sailings



# Deliverables

## Proactive & paperless approach transforms SeaRoad



**Booking/ticketing system to maximize revenue.** Very granular Inventory control (pricing based on cargo commodity)



**Customer Portal (B2B).** Customers to pre-book cargo against their inventory quota. This will ensure a transparent error-free information flow, resulting in stronger revenue controls and efficient port practises



**TOS for Digitized operations.** Drivers make way to terminal area. Operators to proceed cassette packing task and ship loading. Tasks are executed on rugged tablet in real-time anywhere on the terminal



**Self Service check-out.** Drivers proceed to exit gate and confirm checkout details. This eliminates truck administration processes at check out and increases terminal turnaround times



**Datamart smart analytics.** Allows to provide a tool aside of the booking/to perform **Business Intelligence a ticketing system analysis** in terms of revenue, volumes, performances and whatever data is available from the system

# Deliverables

**Vessel Plan**

Load Plan: Seaport Mersey, J | Sailing: Melbourne - Devonport 07/09/2023, 19:00

Main Deck

Total Units: 9 | Parked: 1 | Loaded: 8

Containers 20' Bulker

Container ID: B281	Equipment ID: SR031 Cassette
Container ID: B282	Equipment ID: SR031 Cassette
Container ID: B283	Equipment ID: SR031 Cassette
Container ID: B284	Equipment ID: SR031 Cassette

Section: 3

15-1	08-1		
16-2	09-2	01-2	
17-3	10-3	04-3	
18-4	11-4	05-4	01-4
19-5	12-5	06-5	02-5
20-6	13-6	07-6	
21-7	14-7		
22-8			

Package Detail: 1.10-On company services (DCS) | Load Weight: 2 | Total Weight: 5.2

Total Cassette Weight: 42.80



**Information**

Booking Reference: 52300112650 | Pin Code: 1230000053 | Booking Status: Checked In | Handlings: YARD: EXPORT CASSETTE AREA | YARD POSITION: Z1

Unit

Registration Number: | Vehicle reg. Nationality: | Length: 6.1 | Load: Loaded |  Over height 4.3m or 4.7m

Dangerous Good

**Units Movements**

Yard	Position	Direction	Date/Time	Port Asset
RECEIVAL AREA	REC001	In	8/28/23, 6:57 PM	
RECEIVAL AREA	REC001	Out	8/28/23, 6:57 PM	
EXPORT CASSETTE AREA	Z1	In	8/28/23, 6:57 PM	

**Choose Route** | **Unit Details** | **Confirm & Pay**

**Routes Information**

Melbourne → Devonport | Change

Departure Date/Time: 08-09-23 18:00 | Ship: LIEKUT | Flexibility Level: STANDARD

Arrival Date/Time: 09-09-23 06:30

**Products & Services**

Unit Details

Type: Containers 20' General Purpose	Container ID: S2300120293	
Length: 6.10	Height: 2.62	Unit Weight: 2.2
Width: 2.50	Load Weight: 4.8	Total Weight: 7

**Information**

Booking Reference: 52300112679 | Booking Status: BOOKED | Reference Code: | Special Instructions: |

I have read and accept the Terms & Conditions  
 I confirm that the declared commodity 1.1-General Cargo is correct

Buttons: Option, Quality, Preview Fee, Previous



Thank you for listening





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