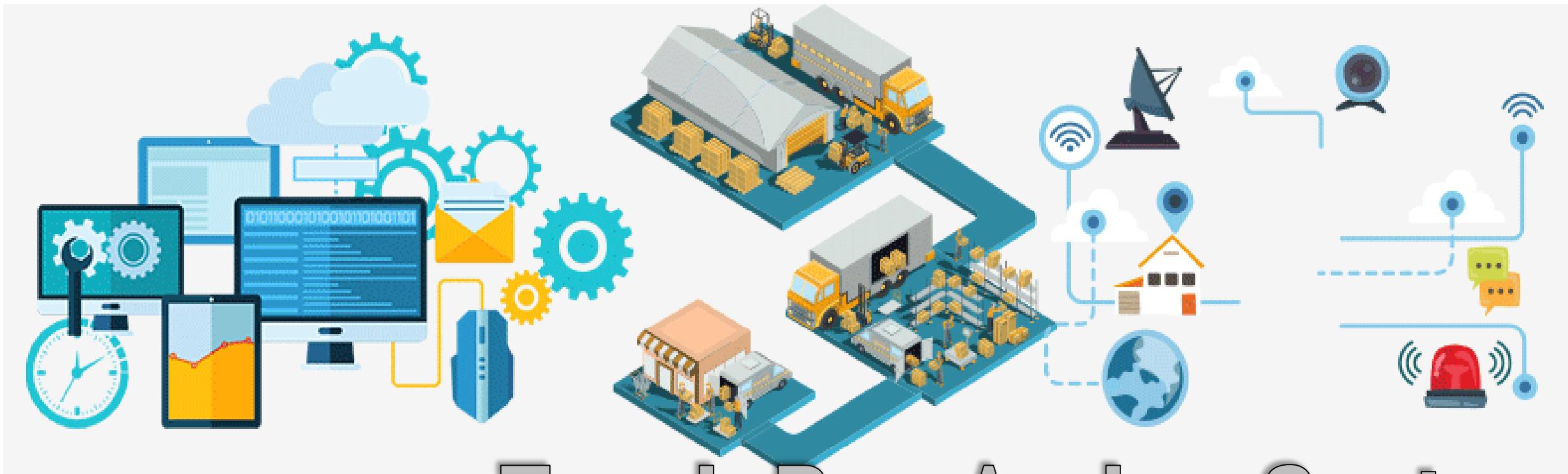


SUGGESTION SYSTEM



Truck Bay Andon System

Plant Administration Div.

NUR HASAN

Biography



Personal Profile



Name : Nur Hasan
Reg. No : 1020481
Working Exp. : 13 thn
Achievement :
 1st Winner CFI 2017
 1st Winner QCC 2019
 Ruby Gold Medals ICQCC-PMMI 2019

Quotes :

"Apa yang Kau Tanam, itulah yang Kau Tuai
Berbuat baiklah meski itu hanya tersenyum"



Working Area

PAD
Karawang 1,2
Division

Logistic
Operation
Department

Logistic Engineering &
Service
Section



TMMIN KRW #2 - Assy Shop



Main Job Engineering

- New Model Preparation
- Tools & New Equipment Facility
- Kaizen & Improvement Support

Activity Initiation

Background

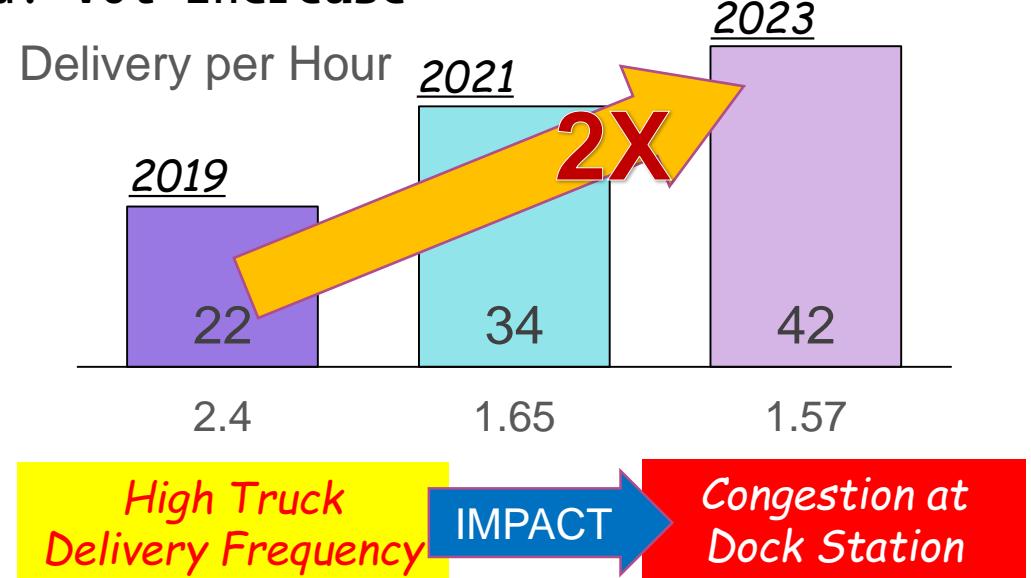
1 Safety Issue :

High Risk Crash due to Truck Waiting at Front of Dock



2 Plant #2 Future Vol. Increase :

Truck Delivery Frequency Increase inline with Prod. Vol Increase



Management Suggestion & Target



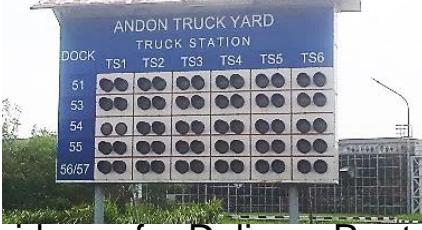
We should tackle this problem as quickly
Let's thinking how to manage truck delivery to support Smooth SOP Multi years project

Generate Idea

Genba Analyze

Layout & Flow of Delivery Assy Shop Plant #2

No indication for Driver

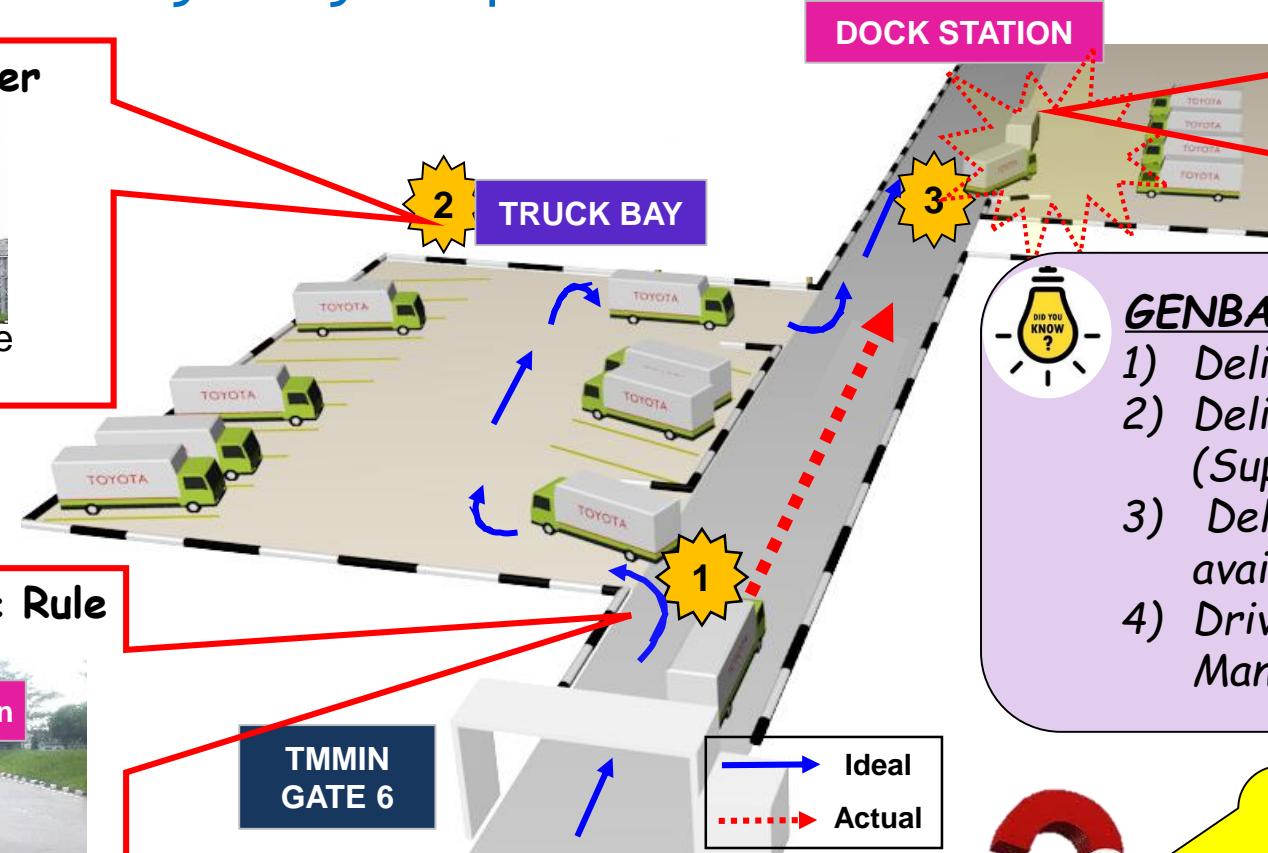


No Guidance for Delivery Route Waiting List from Andon

Driver Not Follow Basic Rule



Truck jumping directly to Dock & not waiting at Truck Bay



Driver Waiting at Front of Dock



Not have tools to Control delivery entering Dock Station

GENBA RESULT :

- 1) Delivery have Clear Schedule
- 2) Delivery have Common Document (Supplier Manifest)
- 3) Delivery data (Arrival Time) available on TMMIN System
- 4) Driver always Scan Supplier Manifest at Dock when Arrive



TARGET :
How to manage and Control delivery for entering Dock Station?

Generate Idea

Discussion with Related Parties



"We have struggle point to control and manage truck entering to dock, because currently we don't have some equipment to barrier truck comes to dock"

Soni K.
GL – Dock 53



Panji
ARMAS

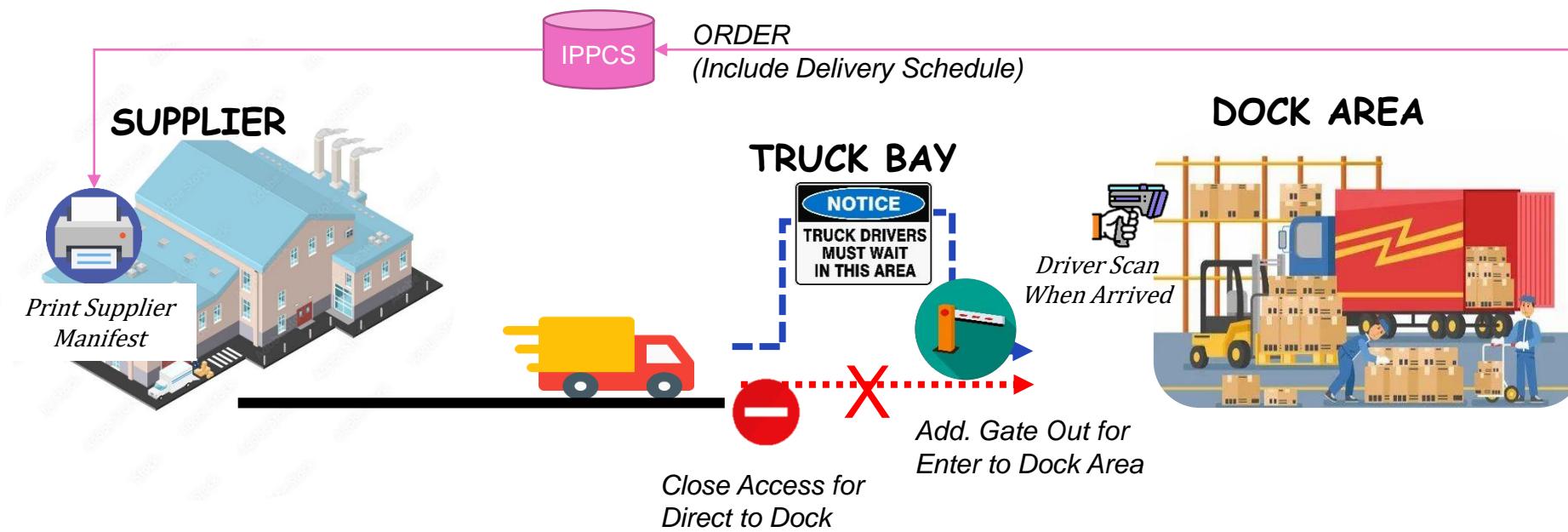
"We already ask to all driver to always obey with the rule to waiting at Truck Bay, but we can't control all of driver because other LP always directly goes to Truck Station. It makes our driver the longest to disobey "



Yoppie A
VPLD

"Basically we already instruction all of drivers to follow our delivery schedule and waiting at the Truck Bay, but we can't control it because it is operation matters"

Basic Thinking Way



We need to develop **Integrated System** to **Manage Operation** by **Software** and **Control Operation** by **Hardware**



Generate Idea

Inspiration Idea

Smart Parking System at AEON Mall



1 Parking Sensor with Lamp Indication

- For auto detection car parking
- Lamp (Red/Green) to visualize parking Available or Not

2 Parking Area Counter

- For indication remaining parking area available

Airport Flight Schedule Board



Airport Flight Schedule Board (Videotron)

- Contain Flight Schedule (Gate, Timing, etc) to give clear information that's will make easier

Paging Waiting System at Hospital



Paging Waiting System

- Visualize waiting list and paging bring clear information and instruction

Estimation Budget Necessary +/- Rp 950 Mio



Discussion with Superior

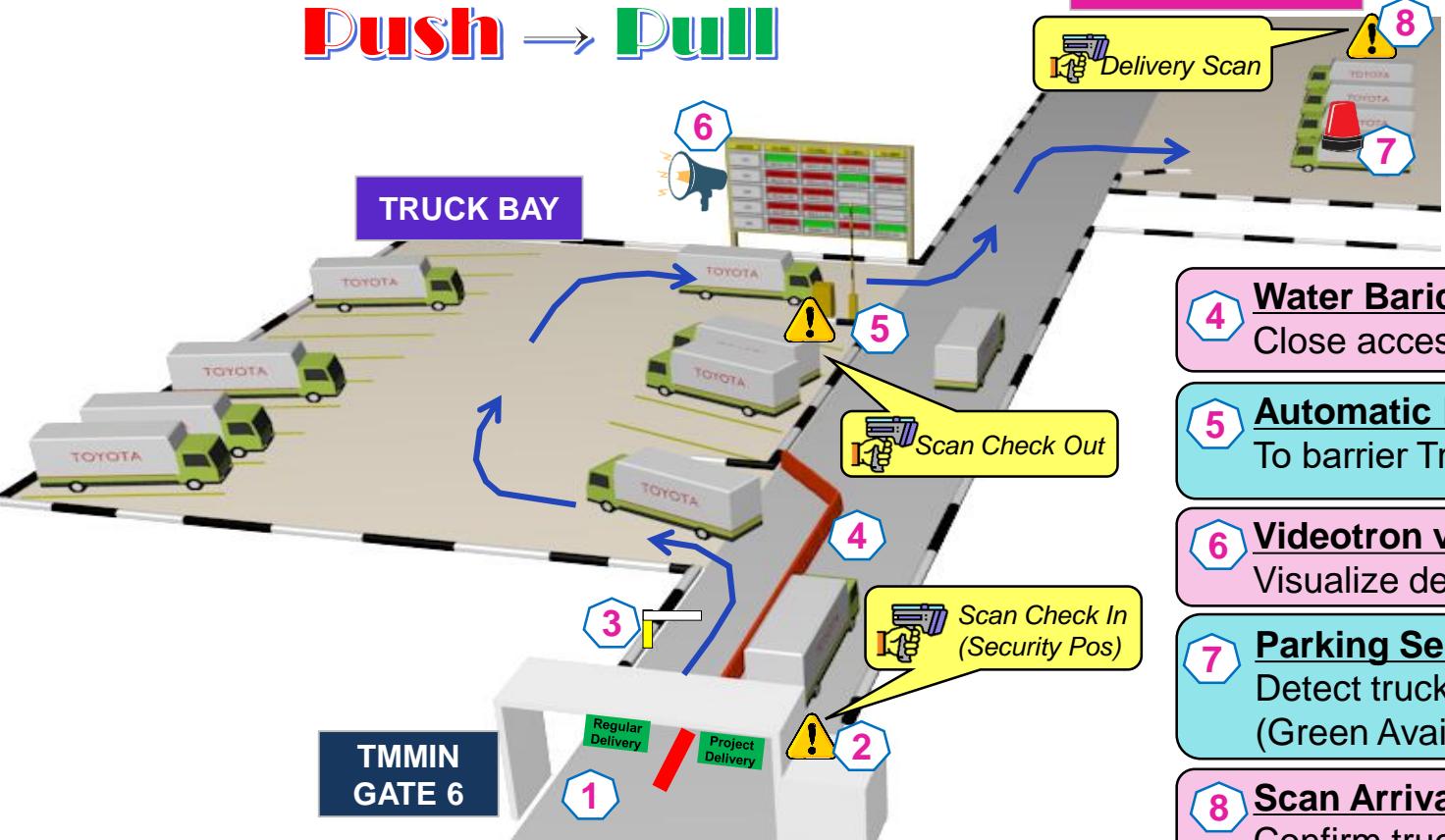


Good Idea but need to consider total process impact, we need execute quickly!
Consider the Budget, we need to proceed this activity to CAPEX FY 2022 to get
Full Support from Management

Execution Idea

Improvement Concept

TPS Thinking Way Push → Pull



Detail Activity Improvement :

1 Separated Gate In

- a) Line 1 : Regular Delivery (Truck Bay)
- b) Line 2 : Project Delivery (Project Area)

2 Scan Check In at Security Pos

Scan In to confirm Delivery Route enter to Truck Bay

3 Automatic Portal Gate In

To barrier Truck can't enter Truckbay before delivery Time

4 Water Baricade

Close access direct to Dock Station

5 Automatic Portal Gate Out

To barrier Truck can't enter Dock Station before Paging by System

6 Videotron visualize Route Waiting List

Visualize delivery waiting list to give information Delivery paging by System

7 Parking Sensor with Indication Lamp

Detect truck parking and visualize station status
(Green Available, Red Not Available)

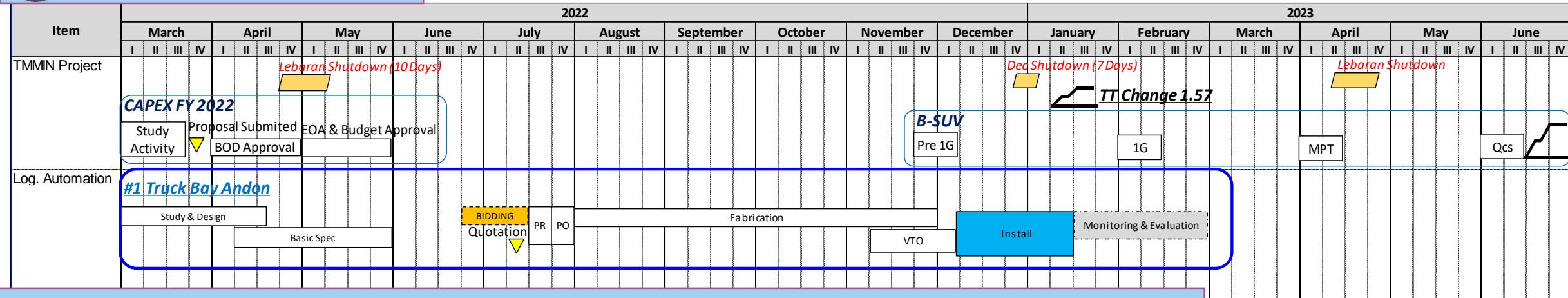
8 Scan Arrival on Dock Station

Confirm truck already arrived on Dock Station

Execution Idea



Schedule Activity



Nemawashi Idea to Management (CAPEX Budget Approval)

KRW DCO - Mr. Arif Mustofa



"Please ensure this activity can absorb future production vol."

KRW Dir. - Mr. I Nyoman W



"Please consider about abnormality, ensure for flexibility to tackle abn. condition"

Finance Dir. - Mr. T. Yamakawa



"I'm so interesting about the concept, please invite me again after system establish"

Execution Idea



Progress & Trial Activity

1) Equipment Readiness



Portal Gate



Scanner

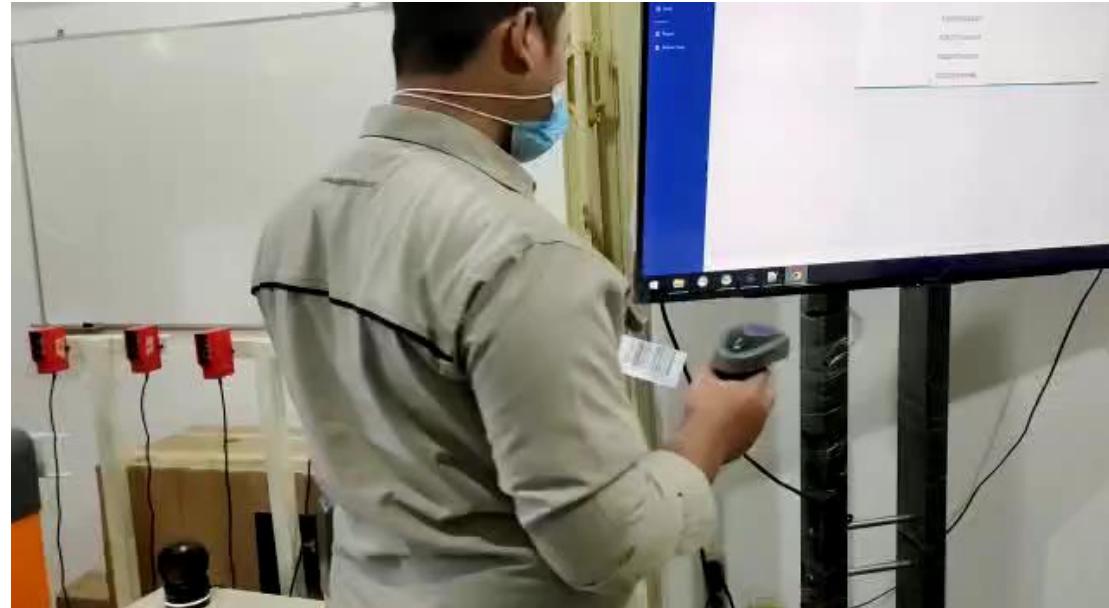


Monitor



Parking Sensor

2) Trial Logic & Function



Trial Result : Function & Logic running well as Target
Next Activity : Installation & Trial Operation

Evaluation Idea



PDCA

KADAI 1 Delivery Document get wet on Rain Condition

Root Cause

Gate Out Truck Bay not have Canopy



PROBLEM : Delivery Document going wet

Temporary Action

Add. Program Rain Mode



Activity : Add. Rain Mode Program
(Portal Automatically Open by Paging by System)

Final Action

Add. Canopy for Gate Out



Activity : Canopy for Gate Out

KADAI 2 Limited Capacity Truckbay Area

Root Cause

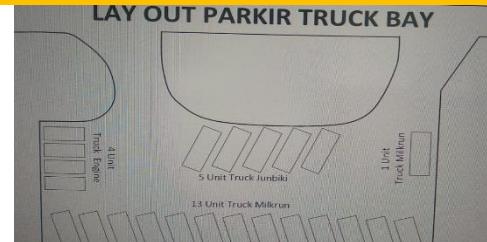
Parking layout not consider Truck Size



PROBLEM : Current Capacity only 22 Unit
(only can absorb 2 hour delivery if any Long Line Stop)

Temporary Action

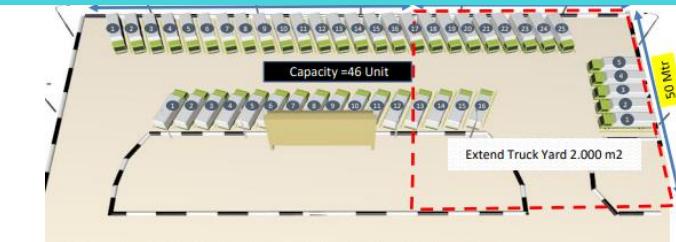
Std. Layout to Optimize Truck Bay Capacity



Activity :Optimize & Standardize Parking Layout
(Increase Capacity 22 → 32 Unit)

Final Action

Capacity Up to Absorb Long Time Line Stop



Activity : Proposed Truckbay Expansion
(Next Activity Plan)

Evaluation Idea



PDCA

Management Genba Check (Update Progress)



"Thank you for this activity. We need to improve not only about the Operational, but also supporting **facility for Driver**. Please **make sure driver facility is comfortable**"



"Let's PAD collaboration to fulfill Pak Nyoman Request to make **Truck Waiting area clean and comfortable**.... And also please coordinate with Log. Partner to take responsibility to take care the facility"

Follow Up Management Request

Before

Driver Waiting area not Comfortable



Need to standardization for Driver Waiting Area

After

Driver Waiting Clean and Comfortable



Collaboration with PAD Facility to improve condition Driver Rest Area

Before

Parking Area dirty & need cleaning



After

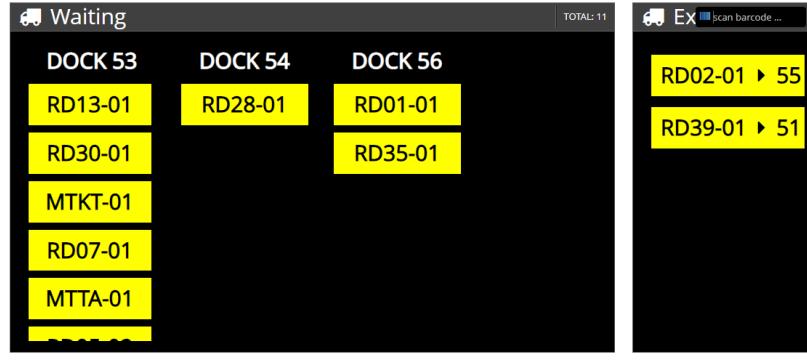
Parking Area Clean & Bright



Evaluation Idea

Activity Result

1) Waiting List Visualization on Videotron



2) Monitoring by System (Web)

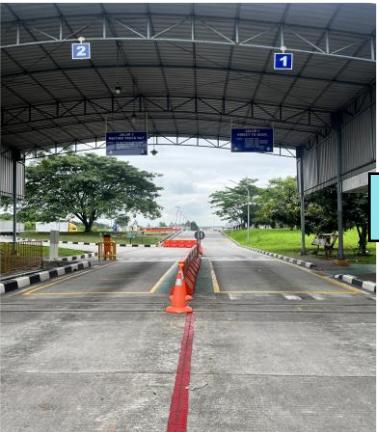


3) Paging System for Delivery



Flow of New Truckbay Operation

1) Driver Entrance Gate 6
(Follow Enterance Line)



2) Driver Scan Check In
Truckbay at Security Pos



3) Gate Open and Waiting
Calling by Paging



4) Route Paging by System and
Driver go to Scan Out Gate



5) Go to Dock Destination and
continue process



Evaluation Idea



Before Improvement



Play

WARNING !!!

This Contain will make me a Winner

After Improvement



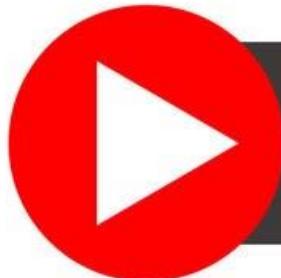
Play

WARNING !!!

This Contain will make me a Winner



Testimony from Driver and Related



Play

WARNING !!!

This Contain will make me a Winner

Standardization

Socialization New Operation

1) Training New System to Operational Level



2) Driver and Log. Partner



3) Collaboration Activity (5R Patrol)



Standardization

SOP DELIVERY TO DOCK

- PARKIR DI TRUCK STATION
- SCAN DCL/MANIFEST DI KANBAN ROOM
- LOADING UNLOADING PART
- LIHAT DESTINASI DOCK BERIKUTNYA DI MONITOR KANBAN ROOM

Route Data

Route No.	Actual Arrival	Next Dock
RD05-02	09:21	5S
MTTA-01	09:12	C0
RD20-01	09:11	
RD14-01	09:09	5S
RD15-01	09:07	C5
RD19-01	09:03	-
RD12-02	08:56	C5
RD22-01	08:55	
RD08-01	08:54	-
RD35-01	08:50	-

SOP JALUR MILK RUN TRUK BAY

- MASUK JALUR 2
- SCAN DCL/MANIFEST DI POS SECURITY
- WAITING DI TRUCK YARD
- TUNGGU ROUTE PINDAH DARI WAITING KE POSISI EXIT/DIPAGGING
- SCAN DCL/MANIFEST DI EXIT TRUCK YARD

Waiting

DOCK S1	DOCK 53	DOCK 54	DOCK 55	DOCK 56
RD35-07	RD27-01	RD23-07	RD16-05	RD11-06
RD35-08	RD17-02			
	RD17-04			
	RD15-03			
	RD05-07			

Emergency Order (EO)

Setelah Scan Route anda akan muncul disini.

Tunggu untuk Rute anda berpindah ke sebelah sini atau dipanggil

Result Idea

Benefit Activity

Safety

Eliminate Crash Risk due to Waiting front of Dock



No one Delivery waiting at front of Dock Station

HR

DX development and Level up awareness total operation by collaboration activity



Build a Systematic Mindset for Total Operation

Cost

Reduce Extra Truck for Pickup Empty Pallet & Reduce Forklift Gasoline consumption due to Operation more Smooth and Heinjunka



Cost Extra Truck :
Avg 17 per Month :
 $= 17 * \text{Rp } 1,350 \text{ Mio}$
 $= \text{Rp } +/- 23 \text{ Mio per Month}$

Reduce Extra Truck Cost/Year
(Rp 275,4 Mio /Year)

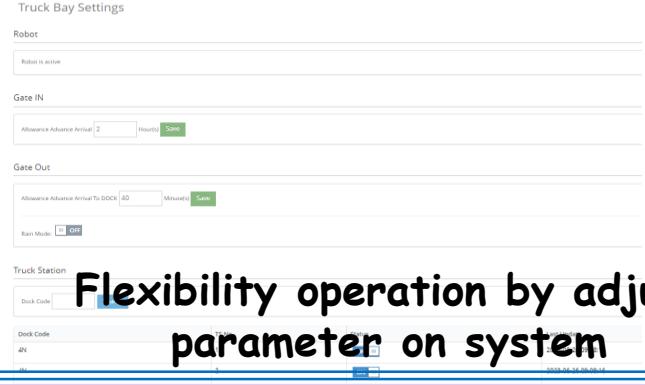
Forklift Gasoline Cost (Rp per Unit)



Total CR = Rp 534,7 Mio per Year

Productivity

Flexibility operational to manage abnormality regarding Line Stop by adjustment on system



Flexibility operation by adjust parameter on system

Delivery

Easy to control delivery by realtime delivery progress on system

Truck Arrival Dock 53	07:00	08:00	09:00	10:00	11:00
RD05-01	RD14-01	RD05-04	DD48-01	DD11-01	
RD06-01	RD30-01	RD20-01	RDI7-02	DD17-01	
RDI2-01	RD06-02	RD06-04	RD34-02	RD01-02	
RDI6-01	RD34-01	RDI6-02	RD35-01	RD05-07	
MTKT-01	RD27-01	DA14-01	RD07-03	RD13-02	
RD13-01	RDI9-01	RD24-02	RD09-02	RD24-03	

Visualize Realtime delivery arrival on system



Sharing Idea for Yokoten Reference

1) Sharing to Log. Operation Plant #1



2) Sharing 5th AP Regional External Logistics Meeting



CHALLENGE

Next Challenge :

Yokoten to Plant #1 and Collaborate with ISTD and VPLD to develop Delivery Mobile Apps



Thank You

