

TMMIN
QCP – CFI
GROUP CEPOT



Always being part of solution

Theme :

**"CKD Export Strategy to Sustain by
Compliance & Best Cost Competitivess**

to Succeed Multi Years Project in **VUCA Era**

VUCA : [Volatility, Uncertainty, Complexity, Ambiguity] Era



Collaboration with :

-> 2 Countries :

TMMIN (INDONESIA) & TMV (VIETNAM)

-> 4 Companies :

TMMIN - PT. MTU - PT. TSMU - PT. MTI

-> 6 Division :

PBOD - PUD - FD - VPLD - ISTD - PCD



**To Support Division Housin: Speedy
execution and strong collaboration
to succeed Multi Years Project**

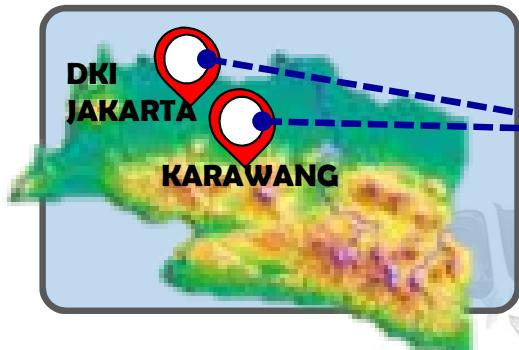
Introduction to Workplace

TMMIN
QCP – CFI PBOD

1



Java Island Map :



TMMIN

Vehicle

Unit Plant

Component Export (PBOD)

Service Part

Component CKD

KRW
(Welding Parts)

Sunter
(Assy Parts)

Sunter 1
Sunter 2

General Flow Process PBOD - CKD

Part / Material
Procurement Control

Receiving

Packing

Vanning

Shippment

Part / Material Procurement Control Area

TMMIN PBOD

Receiving Part

Division Line

Boxing

PC Store

Picking

Receiving
Module

Sorter &
Cleaning

Module
OK

Preparation
Module

Stacking

Yellow
Line

Vanning

Supplier
Component
(Part level)

Here is our
QCP Area



Vendor
Module (Repair)

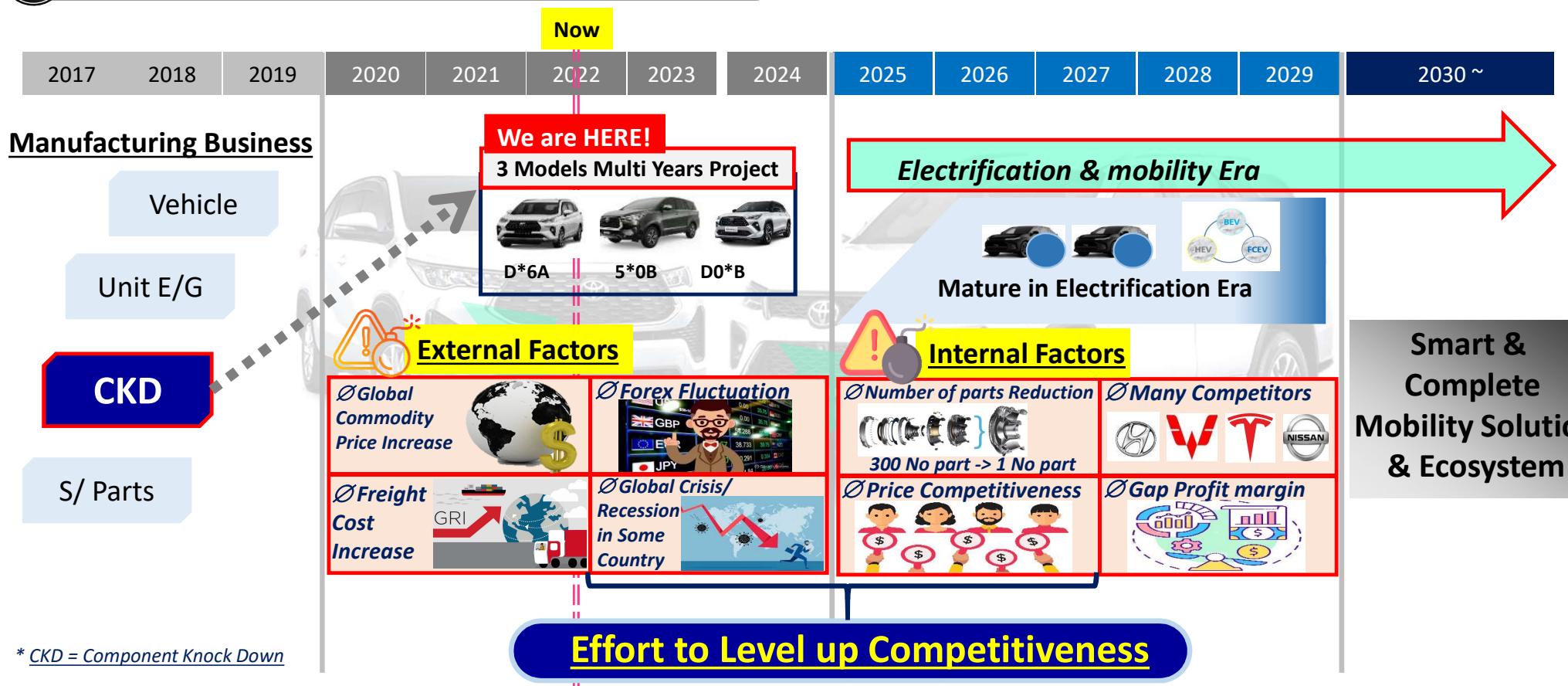
Supplier Component
(Case Level)

Background of Activity

TMMIN
QCP – CFI PBOD

2

PT. TMMIN Company Business Milestone :



Background of Activity

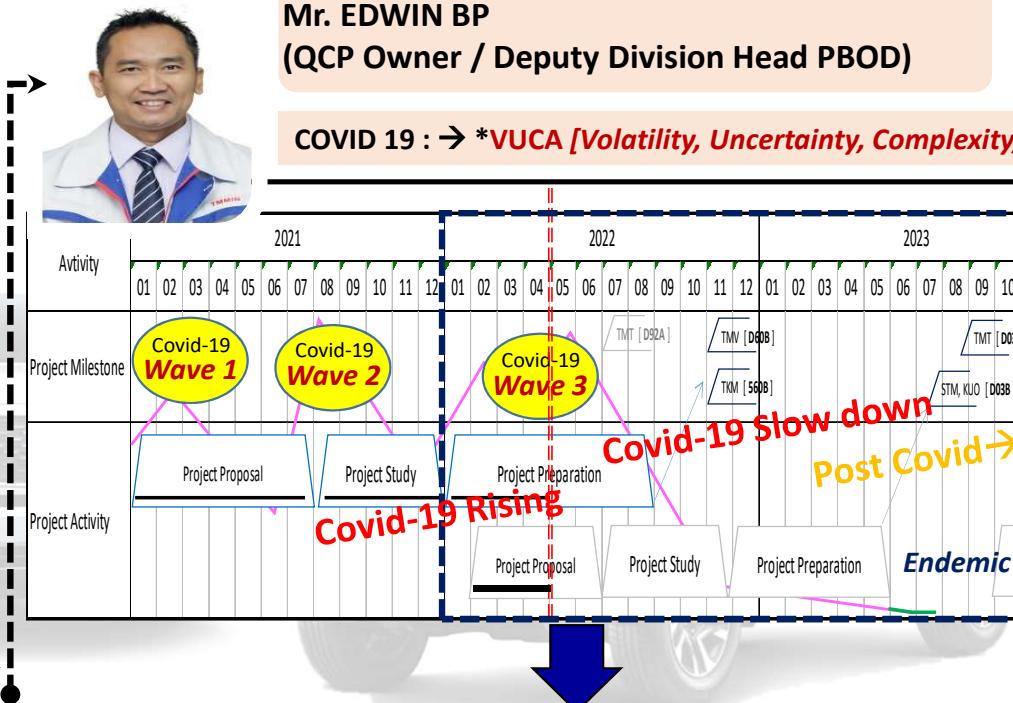


Mr. A TOYODA
(Toyota Global)
Sustainable Growth



Mr WARIH AT
(Presdir PT TMMIN)
To become a global manufacturing company that maintains and continues to expand the company business

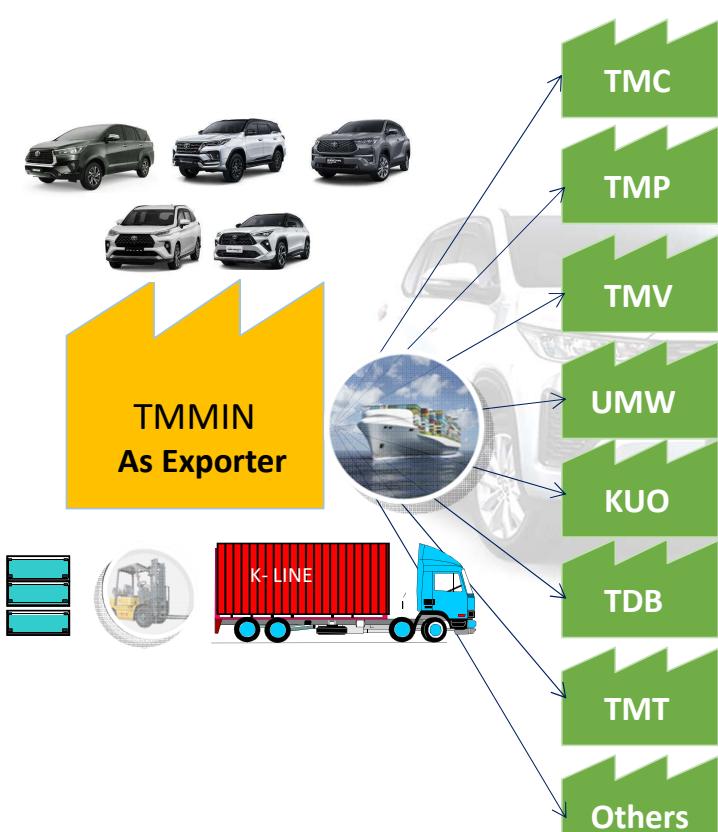
Mr. A. BAGUS I (Division Head)
Secure smooth SoP of CKD project for DG7, B-MPV, CMPV, & B-SUV to All importer countries through strong TD collaboration, henkaten management, Compliance and best competitiveness.



PBOD DH Mission [2022-2023]:
"CKD Export Business Need to Setup Special Strategy to Sustain in VUCA Era"

Background of Activity

TMMIN CKD Export Business



Situation

Different Country Regulation

Different Economic Condition [cost target]

SUSTAINABLE CKD Export Business

Affiliates are happily to select TMMIN as THE BEST MSP Supplier

Cost Competitiveness

Compliance

Best Quality

1

2

3

Safety & TPS

1 Compliance : Secure R/R Facility

2 Cost Competitiveness : Cost Improvement

3 Best Quality: Keep Current Achievement 3.3 PPM [Target 10 PPM]

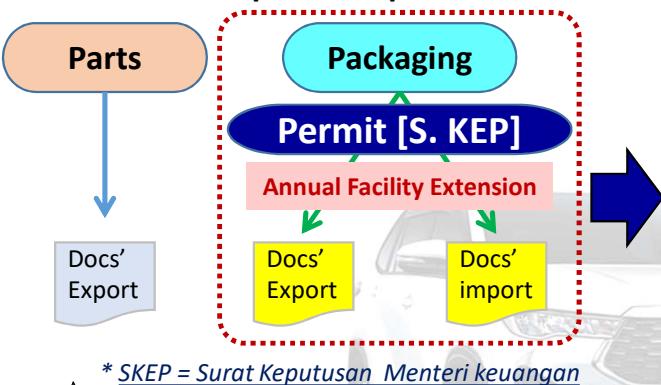
* CKD = Component Knock Down

△ } Challenge to be Improved

Background of Activity

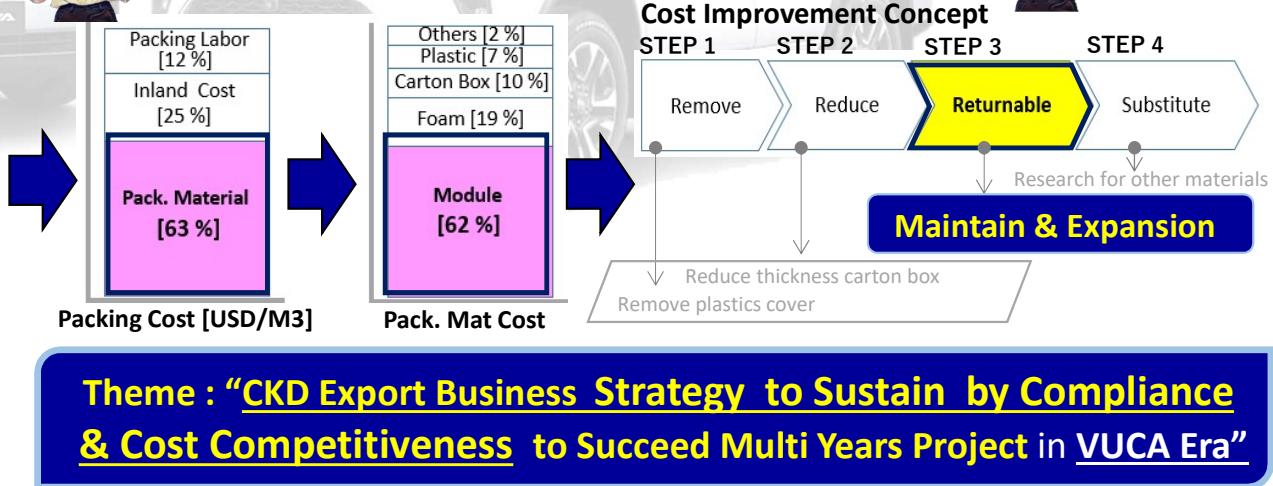
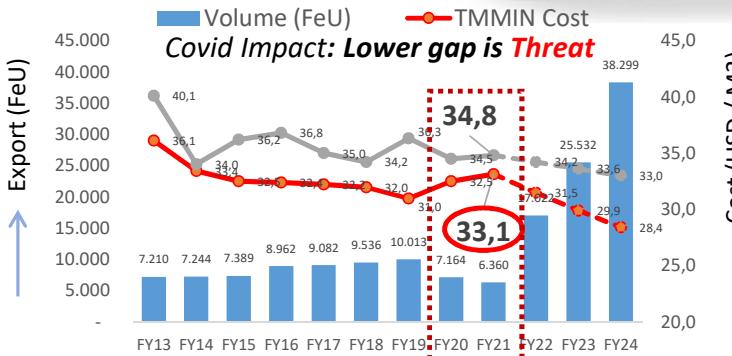
Compliance CKD Export

PBOD- CKD Export Compliance



Cost Competitiveness

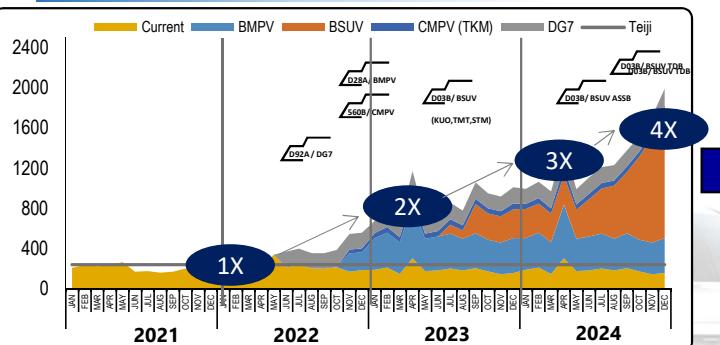
PBOD- CKD Export Competitiveness



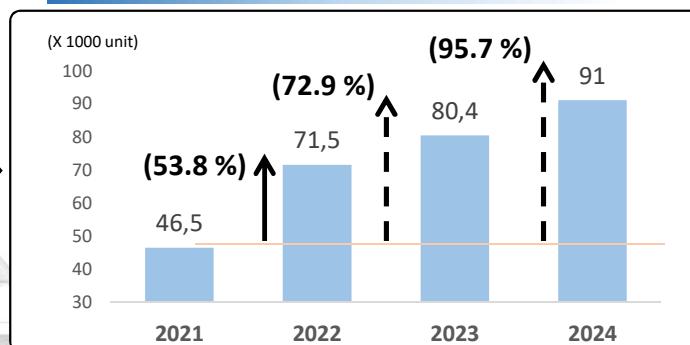
Background of Activity

A). R/R Volume Increase Due to MYP Project (Secure R/R as tools of CKD Export Competitiveness)

Volume Export Trend [Case / Day]



Volume R/R [R/R Qty]

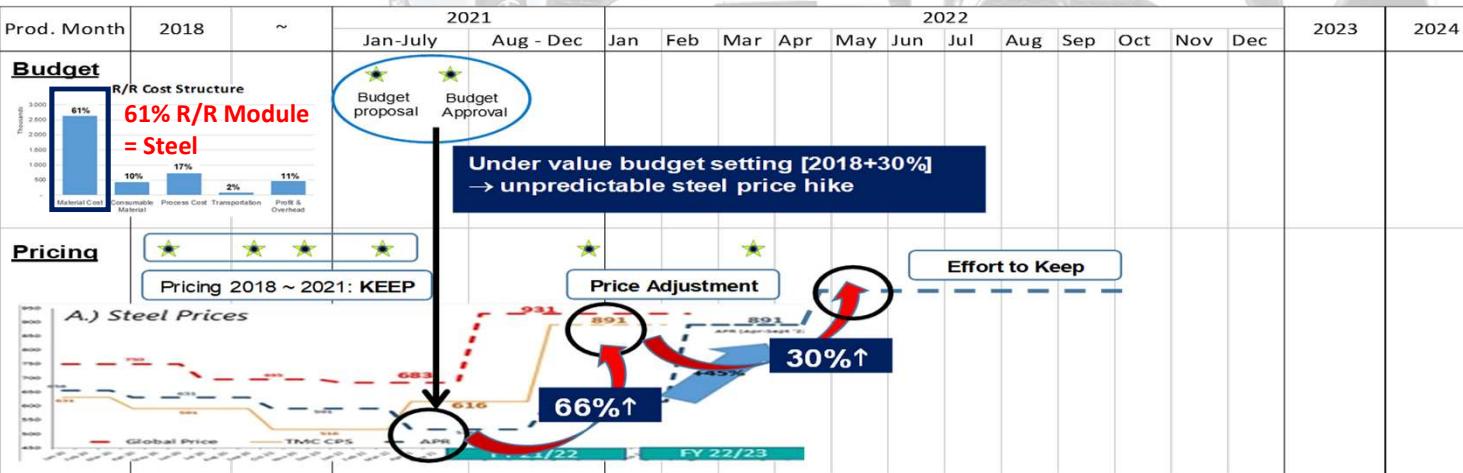


100% Compliance
to Secure R/R Operation for
CKD export

A

Kita harus solve bersama
challenging issue ini Pak
Uum!

B.) Global threat (Covid & Ukraine war), impact Commodity Price Increase



Kita bentuk **team**
Taskforce u/t kolaborasi
activitynya Pak Edwin.



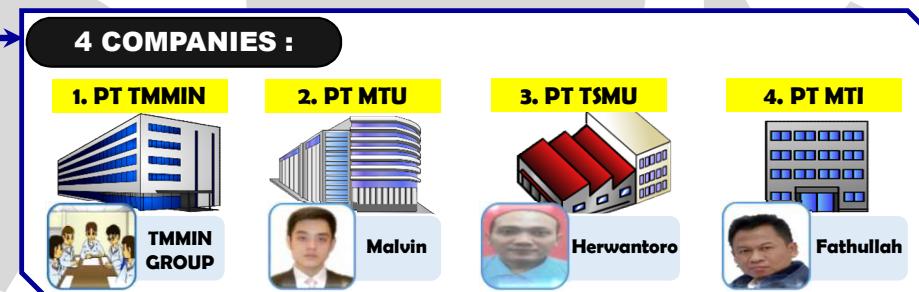
Siap! Kita bentuk QCP
activity lagi ya Pak!

QCP CEPOT Ready to Fight!
[PBOD-PUD-FD-VPLD-ISTD-PCD]

B

Optimize R/R budget
Utilization to secure
B-MPV project SOP

Collaboration Organizational Structure



**WINNING CONCEPT
WINNING TEAM
WINNING SYSTEM**





General Schedule Activity

**TMMIN
QCP – CFI PBOD**

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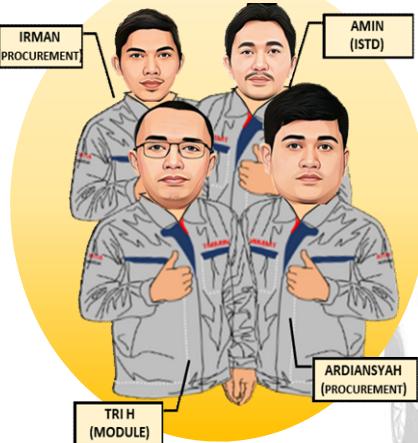
Information : : Planning
 : Actual

Grasp the Situation & Analyze [A. Compliance issue]



∅ 100% Compliance to Secure R/R Operation for CKD export

In charge : Procurement, Module, ISTD,



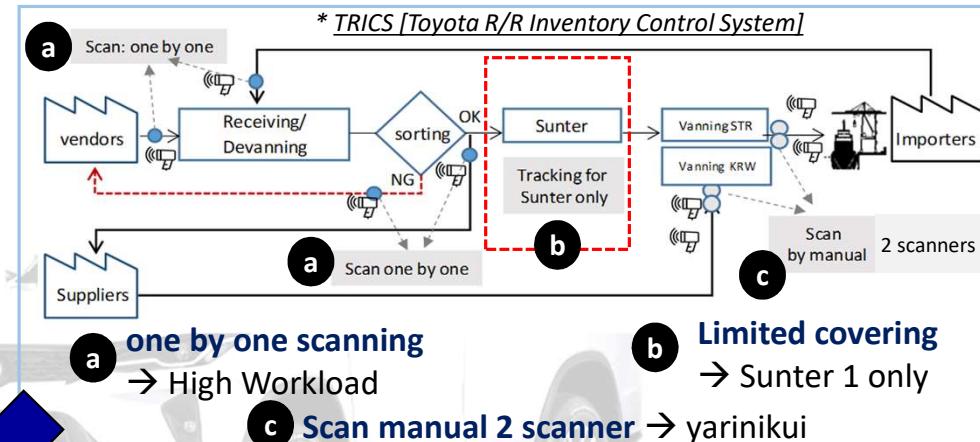
Compliance 100%
R/R Control R/R by System

43%
R/R Transaction
Still done
Manually

Compliance 57%
Some R/R Transaction
Still Done Manually

A

Current system [TRICS] have kada in Workload , Covering Transaction Area & Yarinikui Process



Current R/R control still done manually → need support reliable system Pak Six!

Edwin BP
PBOD- DDH

Agree Pak. It will be much better to
optimize TRICS system. Let's do it Pak!

OK Pak let's study!

Siap...! Enhance Current [TRICS] System.

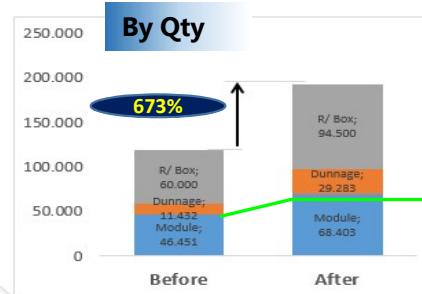
Sixmithson U. C Sinaga
ISTD -DH

Grasp the Situation & Analyze [B. Budget Issue]

∅ Returnable Rack Necessity for B- MVP Project



B-MPV
Additional item
1 New R/R

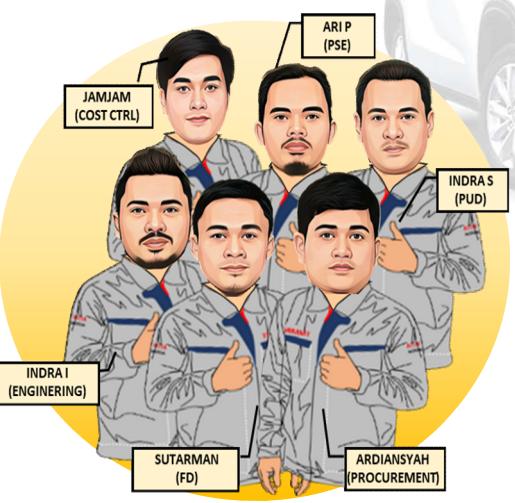


B-MPV
Additional qty
21. 952 units

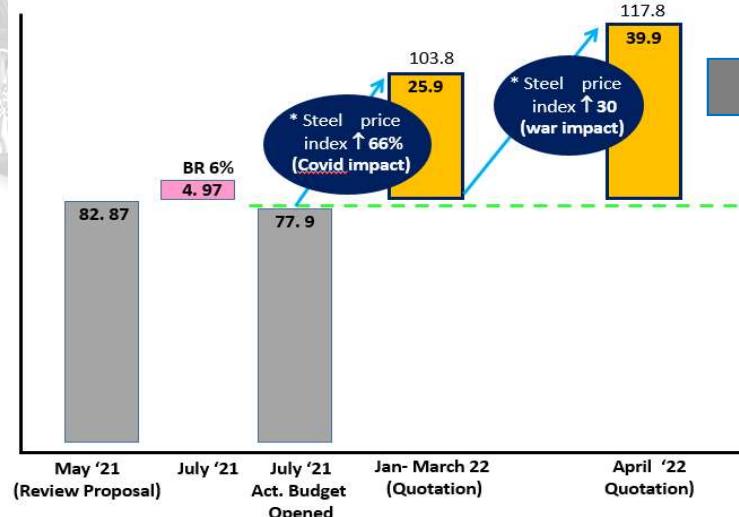
Detail Procurement Plan

NO	R/rack Type	B-MVP	Remarks
1	T1B	13.756	Assy & Weld Parts
2	T1X	3.460	Assy parts
3	T2A	2.617	Shell Body parts
4	SP2 HL	1.084	Assy Big Parts
4	SP2 A7	235	Wleding Big Parts
5	T3P	800	New Type for E/G NR-K
TOTAL		21.952	

Person in Charge



B-MPV R/R Budget Condition -39.9 Bio [Impact of Huge Steel Price Increase]



BNF: Steel price increase impact to Budget Shortage
-39.9 Bio for CKD export B-MPV!

Budget Need (111.8 Bio)

GAP
(39.9 Bio)

Budget Approved (77.9 Bio)



Please Optimize Current Resource Pak Edwin!
[No Additional budget]

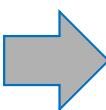
B
No Additional R/R Budget for Shortage
-39.9 Bio impact steel price increase



Improvement Concept & Strategy

[Resume of Graphing Problem]

A Current system (TRICS) have kadaai in Workload, Covering Transaction Area & Yarinikui Process



Strategy

- ◆ Enhance Current System (TRICS) [Expand & link to other system]
- ◆ Utilize TDEM POLYGON system

Concept

Simple & Integration

A1

[Compliance]



- ◆ Review Cost [Self assessment)

- ◆ Modification SP1 → SP2 HL

- ◆ VA-VE Module Spec.

- ◆ Painting standardization

Best Cost R/R

B1

B2

B3

B4

- ◆ Optimize HI-Cube Container

- ◆ TMMIN- TMV Lead Time Review

Breakthrough R/R Optimization

B5

B6

B No Additional R/R Budget for Shortage **-39.9 Bio** impact of steel price increase

[Competitiveness]



Improvement Implementation (A1)

Concept & Strategy

A Compliance

B Competitiveness

Reduce Cost / Unit

Reduce Qty Order

✓ Simple & integration

Person in Charge

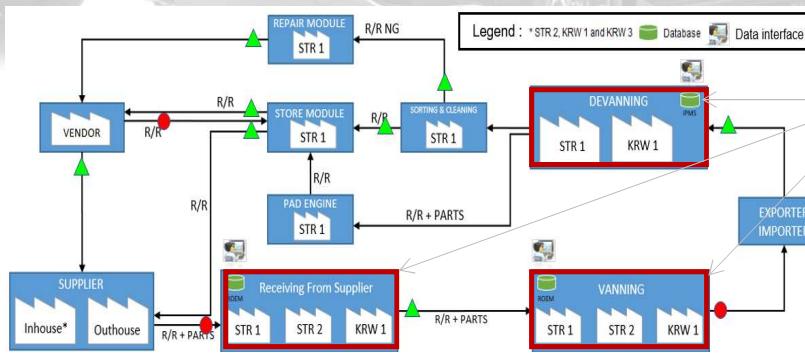


Kaizen/ Improvement (5 July 2023)

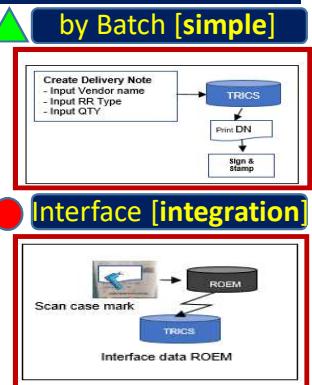
A1 Enhanced TRICS system [Expand & link to other system]

No	CKD Returnable rack control enhancement by TRICS	Idea Improvement
Before	<p>a Scan: one by one</p> <p>b Tracking for Sunter only</p> <p>c Scan by manual 2 scanners</p>	<ul style="list-style-type: none"> a Eliminate one by one scanning b Expand all process R/R Movement from manual c Scan by Manual (2 barcode gun to register module)
After	<p>a Scan: by batch</p> <p>b Tracking for All Plant</p> <p>c By interface data</p>	<ul style="list-style-type: none"> a Scan by batch process/ Interface b Expand system covering tracking all area c Interface data export system (ROEM, IPMS)

Technology Solution : R/R Management System by Interface (Simple & Integration)



Expand Covering



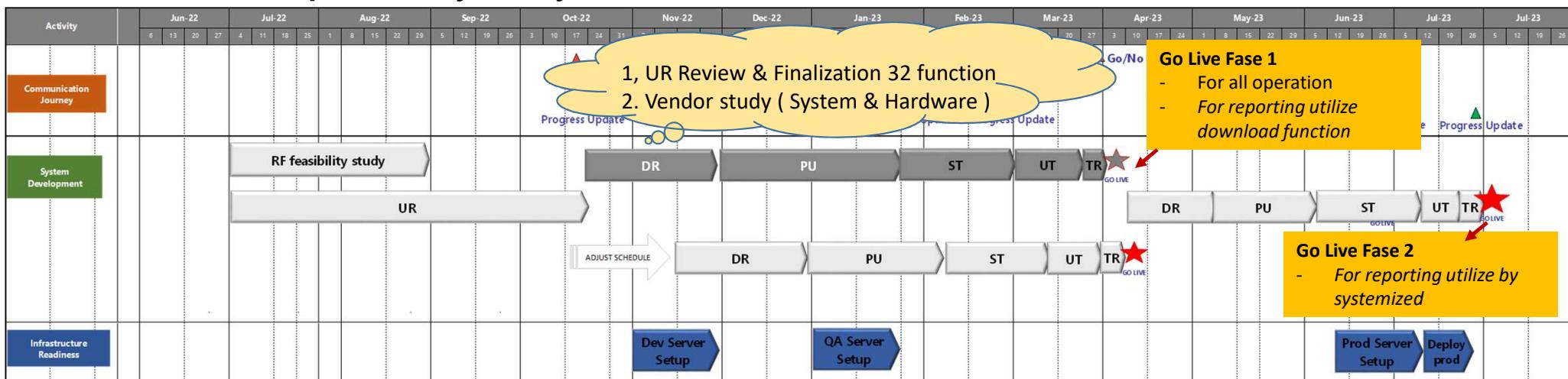


Improvement Implementation (A1)

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Master schedule developed TRICS system by interface



Big Picture [TRICS Milestone]

Initial development

Expand TRICS [Simple & integration] for 100% Compliance

Further development

FY 21

TRICS as inventory

(scan barcode)

Scope STR1 only

FY 22-23

**Expand TRICS for inventory
(using interface to other system)**

Scope Sunter 1, 2, KRW & outhouse
(vendor & suppliers)

FY 23 (Mar- July) Reporting stock by system

- FY 24
- Expand TRICS
- For administration
 - Link to Payment
 - Link to NCV

Ultimate Compliance



Improvement Implementation (A1)

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AREA	ORDERING	RECEIVING PROSES VENDOR	RECEIVING PROSES SUPPLIER	DELIVERY VENDOR TO SUPPLIER	SHORTING & CLEANING	VANNING	DEVANNING
BEFORE	 						
Covering Area : Sunter 1 ONLY							
AFTER - TRICS [Interface System]	 	 	 	 			



Improvement Implementation (A1)

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Illustration before and after condition improvement

Improvement Implementation (A1)



TRICS Improvement Result

Workload Efficiency [MP saving from simplifies process]

Area	Job	MP/ Day	
		Before	After
Rec Module	Receiving Module from Vendor	2	1
	Delivery Module to Vendor		
Receiving Case	Receiving Case from Supplier	2	2
	Delivery Module to Suplier		
Vanning	Vanning to Importer	2	0
	Devanning from Importer		
Total		6	3

Benefit:

194.3 Mio/ Year
X 3 MP

= IDR 583 Mio/ year

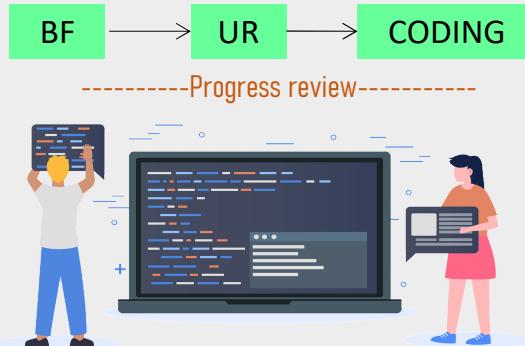
Secure R/R Facility by compliance 100% [control stock by system]



Stepping Activity Improvement

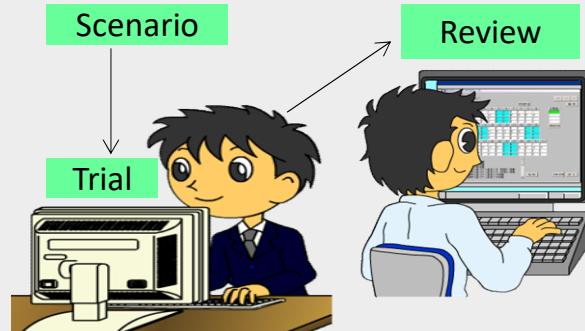
System Development

July – Dec'22



User Test & User Trial

January – April'23



User Training

Vendor : 5 May'23



Sunter 1 12 & 16 May'23



Sunter 2 : 12 & 16 May'23



KRW : 10 & 16 May'23



Improvement Implementation (B1)

TMMIN
QCP – CFI PBOD

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Concept & Strategy

A Compliance

Simple & integration

B Competitiveness

Best Cost R/R
Breakthrough R/R Optimization

Person in Charge

INDRA S (PUD)

MALVIN (MTU)

FATHULLAH (MTI)

ARI P (PSE)

MTI

Kaizen/ Improvement

B1 Review Cost [Self Assessment, structure review & Cross Price Analysis]

No	Component Cost	Vendor				Justment	Remarks
		A	B	C	D		
1	Material Cost	3,5	4	4,5	4,5	3,5	From A
2	Consumable Cost	4	4,5	3,5	4	3,5	From C
3	Process Cost	4,5	5	5	4	4	From D
4	Transportation	4	3,5	4	4	3,5	From B
5	FOH	3,5	3,5	3,5	3,5	3,5	Judge 11%
TOTAL		19,5	20,5	20,5	20	18	

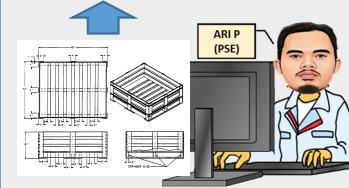
No	Type	Quotation (Before)	Cost Review (After)	Reduction	↓ %
1	T1B	Rp 4.807.073	Rp 4.691.000	Rp116.073	2,4%
2	T1X	Rp 4.173.000	Rp 4.126.000	Rp 47.000	1,1%
3	T2A	Rp 5.926.564	Rp 5.679.521	Rp247.043	4,2%
4	SP2-HL	Rp 10.860.000	Rp 10.423.500	Rp436.500	4,0%
5	SP2-A7	Rp 11.300.000	Rp 10.750.000	Rp550.000	4,9%
6	T3P	Rp 9.117.000	Rp 9.110.000	Rp 7.000	0,1%

Reduce Cost / Module Average: 2.8 %

Stepping Activity Improvement

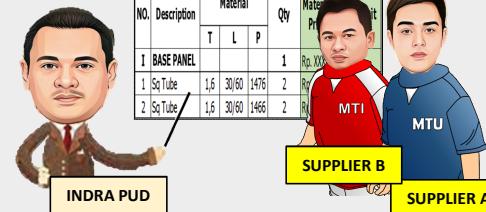
Standardize BQ based on Drawing

NO.	Description	Material	Qty	Material Price	Cost / Unit
1	BASE PANEL	T L P	1		
1	Sq Tube	1,6 30/60	1476	2	
2	Sq Tube	1,6 30/60	1466	2	



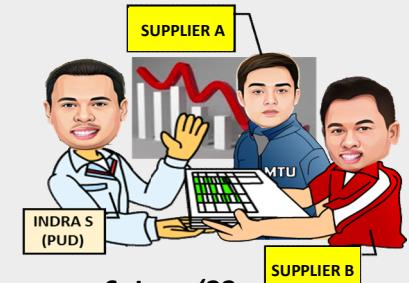
16 - 19 May '22

Quotation gathering based on BQ



26 May '22

Review Cost & Negotiation



6 June '22

Improvement Implementation (B2)

TMMIN
QCP – CFI PBOD

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Concept & Strategy

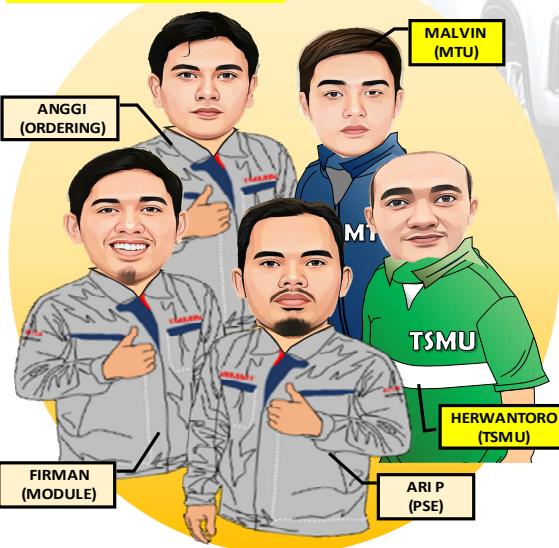
A Compliance

B Competitiveness

Simple & integration

✓ Best Cost R/R
Breakthrough R/R Optimization

Person in Charge



B2 Modification SP1 → SP2 HL

Before

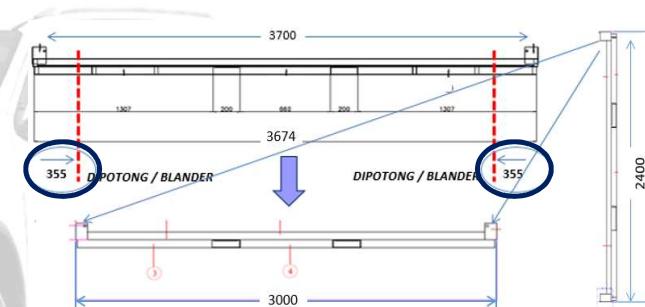
After



Item	New	Modif	CR/ unit
Base	6.741.282		
Cremona	1.422.400	4.850.000	
Outer	1.817.200		
Total	9.980.882		51.4%

Kaizen/ Improvement

No	Item komponen	Item Job	Cost
1	Base	Midification	↓
2	Cremona	Make new	→
3	Outer	Make new	→



Stepping Activity Improvement

Concept design [Modif]



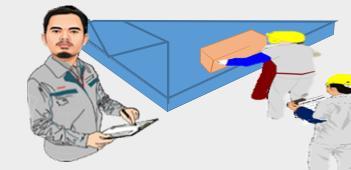
Ari P – Firmansyah
19 - 20 May '22

Trial & sample



Ari P – Firman- Malvin (MTU)
8 June '22

Trial Packing at TSMU



Ari P – Anggi E-Malvin-Herwantonoro
23 June '22

Mass Prod.
[Modif 300 units]



Ari P – Anggi E
July – Aug '22

Improvement Implementation (B3)

TMMIN
QCP – CFI PBOD

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Concept & Strategy

A Compliance

B Competitiveness

Simple & integration

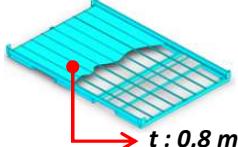
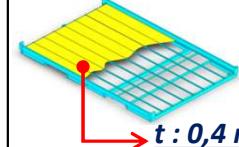
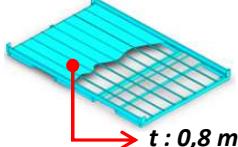
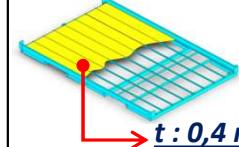
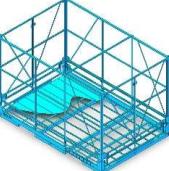
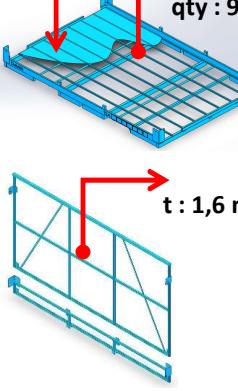
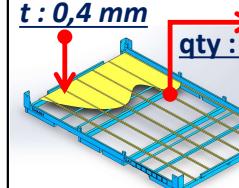
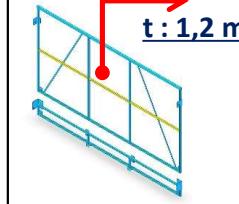
✓ Best Cost R/R
Breakthrough R/R Optimization

Person in Charge



B3 VA/VE Module Spec. [T1B-T1X-T2A]

* VA : Value Analysis / VE : Value Engineering

No	Mdl type	VA/ VE Point	Before	After	CR/ unit
1	T1B	Base: <i>Reduce Thickness base plate</i>			
2	T1X	Base: <i>Reduce Thickness base plate</i>			
3	T2A	Base: <i>Reduce qty. Reinforcement</i> <i>Side Panel Reduce Thickness material</i>	 	 	

Improvement Implementation (B4)

Concept & Strategy

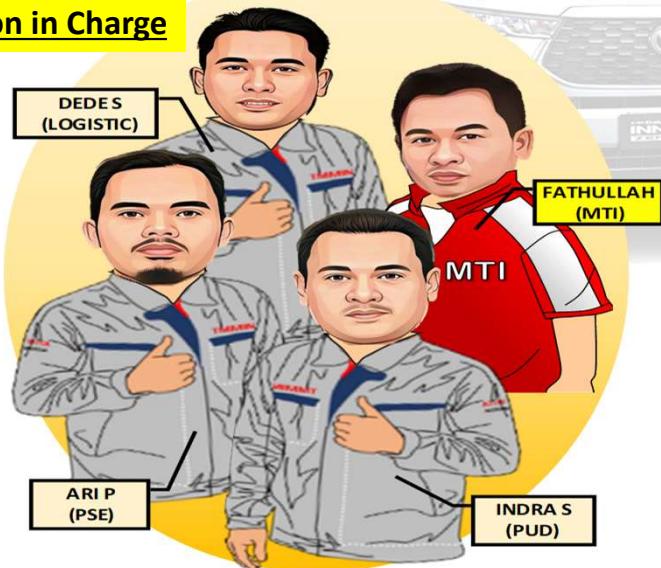
A Compliance

B Competitiveness

Simple & integration

✓ Best Cost R/R
Breakthrough R/R Optimization

Person in Charge



Kaizen/ Improvement

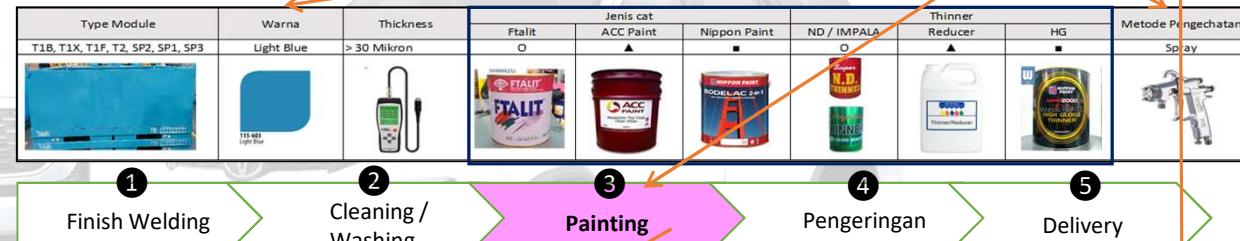
B4 Painting Standardization

Before [Standard only color code]

Color	Material	Method	Gentan-I
O	X	X	X

After [Painting Standardization]

Color	Material	Method	Gentan-I
O	O	O	O



Improvement Implementation (B3 & B4)

Stepping Activity Improvement

B3

Concept design [VA/VE] *Design simulation*



Ari P – Tri H
7- 18 July '22

Trial & sample



Ari P – Tri H- Fathullah (MTI)
28 July – 5 Aug '22

Price Evaluation



Indra Safitri – Ari P
9 – 16 Aug '2022

Mass Production [MTI]



Raw Material



Fabrication



Painting



Storage FG

Socialization to other vendors (yokoten)

In class socialization - TMMIN
5 Sept 2022



Genba Explanation - MTI
15 Sept 2022



B4

Concept Standardize Painting



Indra I – Ardiansyah
12-19 July '22

Trial & sample



Indra I – Dede S- Fathullah (MTI)
28 July 5 Aug '22

Price Evaluation



Indra Safitri – Indra I
19 Aug '2022

PT MTI
Sept '22 – Dec '23

PT MTI - Ari P- Dhason
Sept '22

Improvement Implementation (B5)

Concept & Strategy

A Compliance

B Competitiveness

Simple & integration

Best Cost R/R

Breakthrough R/R Optimization

Person in Charge

INDRA I
(PSE)

HERY S
(PROCUREMENT)

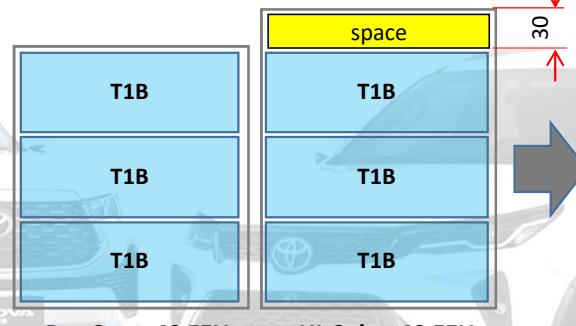
ANGGI
(PROCUREMENT)

ARDIANSYAH
(PROCUREMENT)

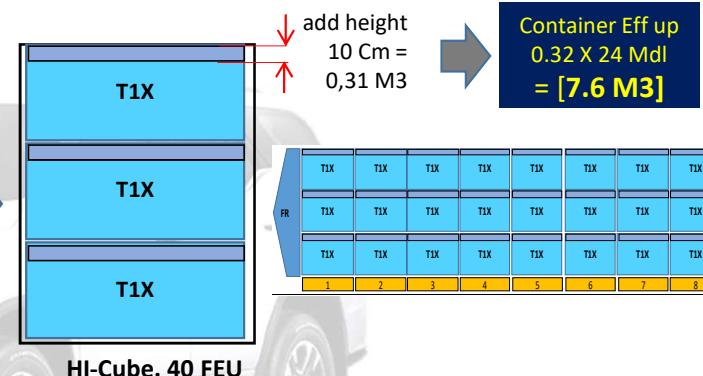
ANH LE VAN
(PPLO VIETNAM)

B5 Hi-Cube Container Utilization

Before [Dead space in HC cont.]



After [Maximize dead space using R/R T1X]



Re-grouping case [T1B → T1X]



Detail Regrouping case Lot Pattern

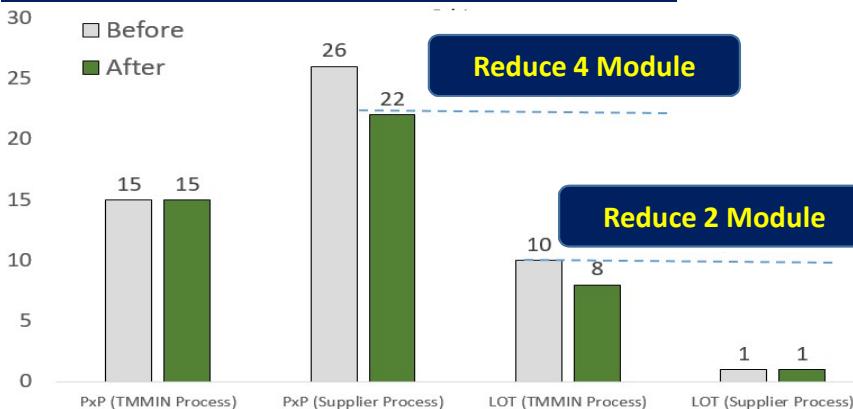
Before		After	
Case	Mdl	Case	Mdl
A1	T1B	M1	T1X
A2	T1B	M2	T1X
A3	T1B	M3	T1X
A4	T1X	M4	T1X
A5	T1X	M5	T1X
A6	SP2	M6	T1X
A7	T1B	M7	T1X
A8	T1X	A4	T1X
A9	T1B		
V1	T1X		
V2	T1B		

Improvement Implementation (B5)

Kaizen/ Improvement

B5 Hi-Cube Container Utilization

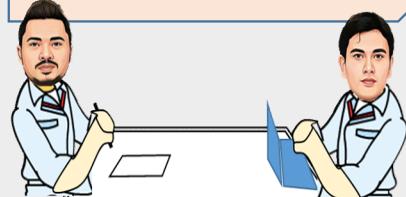
Total Re-grouping impact: Reduce 6 Module



No	Evaluation	Before	After	CR/ unit
1	Container Usage/Month	2 Lot/ Cont. <u>50 Feu/ Month</u> 600 Mio	3 Lot/ Cont. <u>34 Feu/ Month</u> 408 Mio	REDUCE 16 Feu/ Month 192 Mio / Month
2	R/R Investment	T1B: 13.756 T1X: 3.460 <u>78.8 Bio</u>	T1B: 11.426 T1X: 5.651 <u>76.9 Bio</u>	Cost Reduction 2.82 Bio

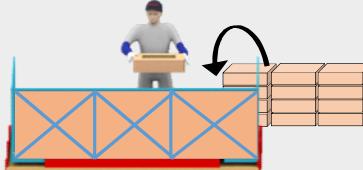
Stepping Activity Improvement

Draft Re-Groping (concept)



Indra I – Anggi E
27-30 June '22

Trial Packing & Simulation



Indra I – Heri S- Anggi E
7-14 July '22

Importer Acceptance



Anh Le Van - Ardiansyah
25 July '22

Trial Packing Real Condition



Indra I –Anggi E
4 - 11 Aug '22

Implementation



Indra I – Anggi E
Start Sept'22 (MPT)

Full Efficient



Improvement Implementation (B6)

TMMIN
QCP – CFI PBOD

24

Concept & Strategy

A Compliance

B Competitiveness

Simple & integration

Best Cost R/R
Breakthrough R/R Optimization

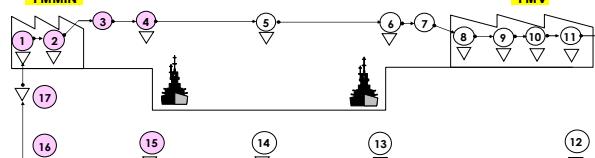
Person in Charge

INDRA S
(PUD)

ANGGI
(PROCUREMENT)



B6 TMMIN- TMV Shortening lead time



TMMIN Lead time : 31 Days

TMV Lead time : 42 Days

TOTAL Lead Time : 73 Days

Kaizen/ Improvement

R/R Rotation Cycle

1. R/R empty at WHS	: 6 day(s)	A	Idea to shorten lead time	B
2. Packing & vanning (IH/OH)	: 3 day(s)			
3. Landing Transportation	: 1 day(s)			
4. Customs Clearance & Ship.	: 2 day(s)			
5. Sea Transport	: 6 day(s)			
6. Customs Clearance & Unloading	: 5 day(s)			
7. Land Transport	: 1 day(s)			
8. Local Storage	: 14 day(s)			
9. Unpacking	: 0.5 day(s)			
10. Folding empty R/R	: 0.5 day(s)			
11. Empty Store ⇒ vanning	: 6 day(s)	A		B
12. Land Transport	: 1 day(s)			
13. Customs Clearance & Shipping	: 2 day(s)			
14. Sea Transport	: 12 day(s)			
15. Customs Clearance & Unloading	: 7 day(s)			
16. Land Transport	: 1 day(s)			
17. Storage management (CY)	: 5 day(s)			

A Shortening TMMIN Lead Time [no. 17 & 1] . 11 Days → 9 Days [by improving L/T prep. New R/R]



Review Sourcing material lead time

Reduce L/T 2 D

TMMIN stock
= L/T Prep. new R/R
[Re-order]

Stepping Activity Improvement

Discussion for Idea



Indra S - Ardiansyah
1 Sept '22

Discuss with vendors



Indra S - Ardiansyah
19 Sept'22

Getting Consensus [L/T Commitment]



Indra S - Ardiansyah
3 Oct'22

Improvement Implementation (B6)

Concept & Strategy

A Compliance

B Competitiveness

Best Cost R/R

Simple & integration

✓
Breakthrough R/R Optimization

Total Benefit Shortening Lead Time TMMIN & TMV

Type	Dest	Dest. (Yokoten)			Shortening L/T		Module ↓	Price [Mio]	CR [Bio]
		TMV	TMP	TKM	UMW	A	B		
T1B	0	0	0	0	2	5	7	1.744	Rp 4.075.000
T1X	0			0	2	5	7	335	Rp 3.550.000
T2A	0			0	2	4	6	323	Rp 5.100.000
SP2-HL	0				2	3	5	100	Rp 9.980.000
SP2-A7	0				2	3	5	130	Rp 10.200.000
T3P	0				2	4	6	50	Rp 9.100.000
TOTAL				2.682				Rp 12.719.623.665	

Kaizen/ Improvement

B6 TMMIN- TMV Shortening lead time

B Shortening TMV L/T [no. 11] . 6 Days → 3 Days [By mix vanning pattern returning R/R]

Store	Before			Remarks
	Type	Single	Mix	
1 T1B	o			2 Single
2 T1X	o			3 Single
3 T3A	o	o		12 Single/ Mix
4 T3M	o	o		8 Single
5 T1A	o			6 Single / Mix
6 T3N/T3P	o	o		6 Single / Mix
7 T2A	o	o		6 Single
8 SP3	o			5 Single / Mix
9 SP1	o			4 Mix
10 SM/B1	o			4
11 SP2 HL	o			5 Single
12 SP2 A7	o			5 Single
Area Need 222 M ²		Ave L/T	5,50	→ 6 Days

Store	After			Remarks
	Type	Single	Mix	
1 T1B	o	o		1 Can return single or mix but not mix in same stacking
2 T1X	o	o		2 Single or Mix
3 T3A	o	o		3 Single or Mix
4 T2A	o	o		4 Single or Mix
5 T3N	o	o		5 Single or Mix
6 T3P	o	o		
7 SP3	o	o		
8 SP1	o	o		
9 SM/B1	o	o		
10 SP2 HL	o	o		
11 SP2 A7	o	o		
Area Need 138 M ²		Ave L/T	2,50	→ 3 Days

Stepping Activity Improvement

Draft Idea Mix Vanning Pattern



Heri S - Firmansyah

Communication & Consensus with TMV



Ardiansyah

Implementation [TMV vanning]



Anggi E

Evaluation [TMMIN devanning]



Heri S - Firmansyah

1 Nov '22

7 Sept '22

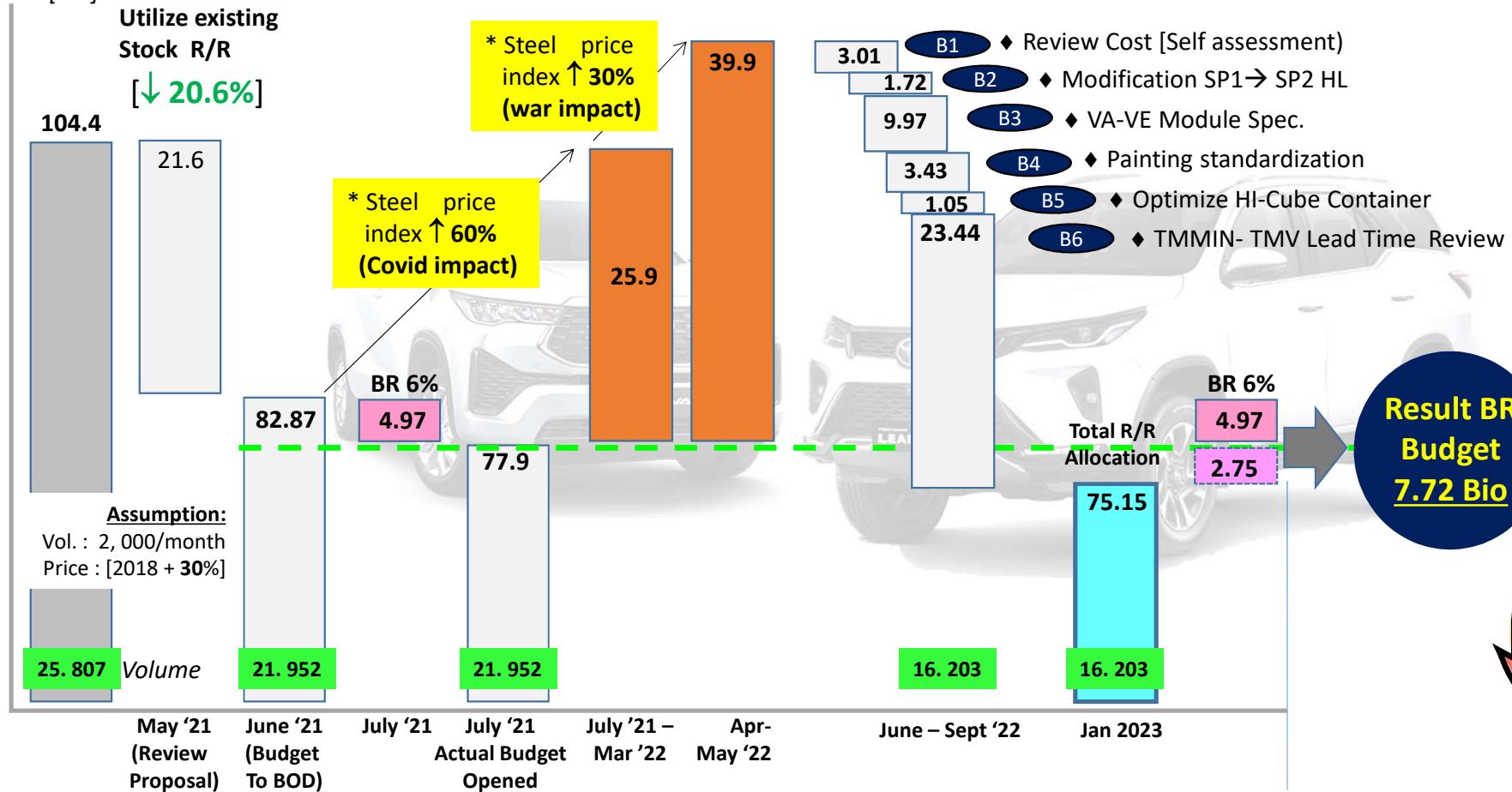
21 Sept '22

5 Oct'22

Budget Implementation

No Additional R/R Budget for Shortage **-39.9 Bio** impact of commodity (steel) price hike → Effort to achieve Yossan target

Cost [Bio]



Total Improvement Evaluation

Tangible Benefit [Cost Reduction & Budget Reduction] ①

No.	Issue	Problem	Improvement	Investment Cost	Result	Benefit / Year	
						CR Gentan-I	Budget Reduction
1	Compliance to Secure R/R Facility	Current system (TRICS) having kadai in workload & Covering Transaction Area	Enhance Current System (TRICS) [Expand & link to other system]	Rp 949.950.000	Secure One-way Cost [If R/R Facility Stoped]	Rp 504.300.000.000	
					Saving 3 MP	Rp 582.900.000	
2	Competitiveness Secure B-MPV R/R Budget	No Additional R/R Budget for Shortage -39.9 Bio impact of steel price increase	Review Cost [Self Assessment, structure review & Cross Price Analysis]		Cost Reduction from quotation Ave [2.8%]		Rp 3.013.697.712
			Modification SP1 → SP2 HL		Cost reduction IDR 513 Mio/ Mdl		Rp 1.721.550.000
			VA/VE Module Spec. [T1B-T1X-T2A]		Cost reduction/ module Ave [5.7%]		Rp 9.973.454.194
			Painting Standardization		Cost reduction/ module Ave [4.5%]		Rp 3.431.647.913
			Hi-Cube Container Utilization		Rebalance Qty Order T1B [-3.732] & T1X [+965]	Rp 205.932.656	Rp 1.057.119.893
			TMMIN - TMV Shortening lead time		Reduce Investment Qty R/R: 2.682 Units		Rp 23.444.653.772
TOTAL INVESTMENT				Rp 949.950.000	TOTAL BENEFIT	Rp 505.088.832.656	Rp 42.642.123.484

Cost Reduction / Year: 505.088.832.656

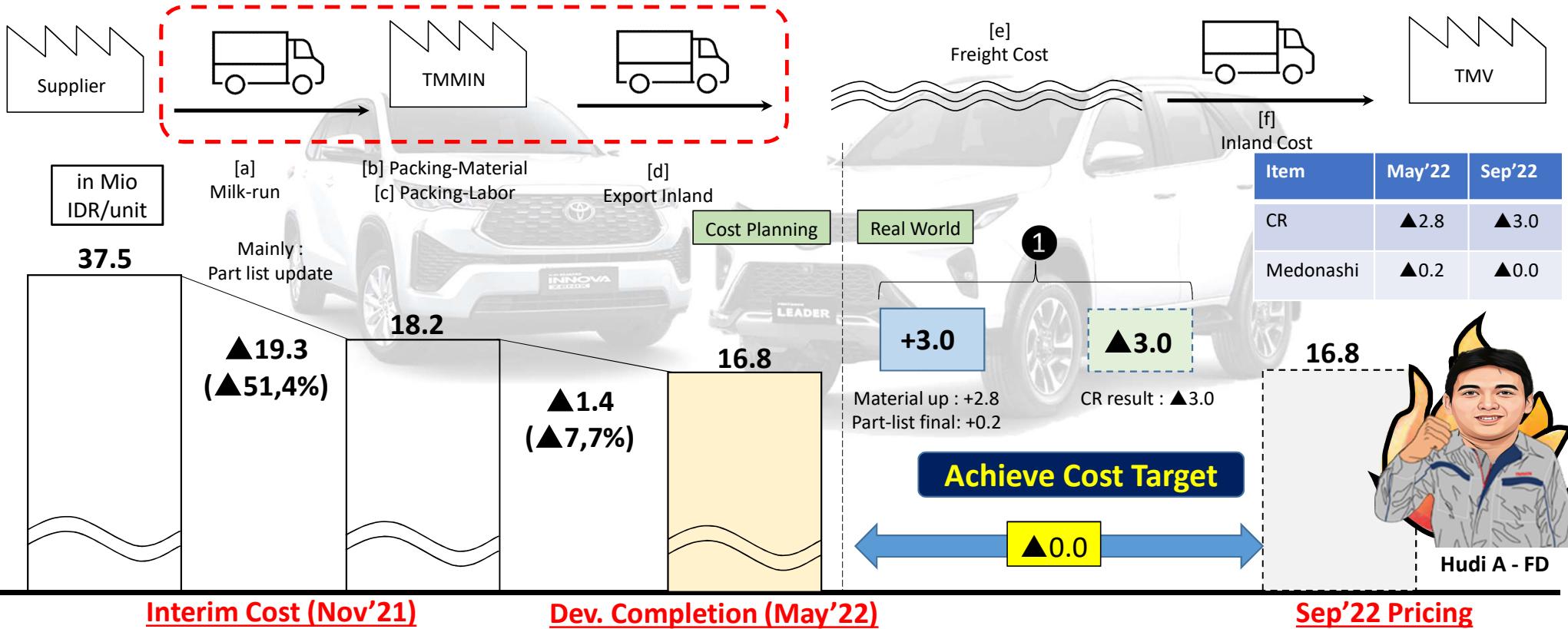
Secure B-MPV Project by Optimizing **Approved budget**

Total Improvement Evaluation

Tangible Benefit [Competitiveness Level] ②

FY22/23 Sep'22 pricing achieve Dev. Completion (below than Yosan) status.

Material up and part list update +3.0 M/u can be covered by CR ▲3.0 M/u.



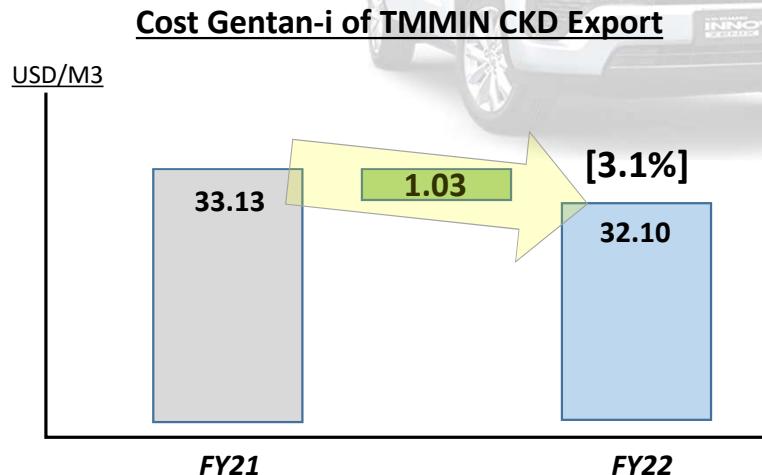


Total Improvement Evaluation

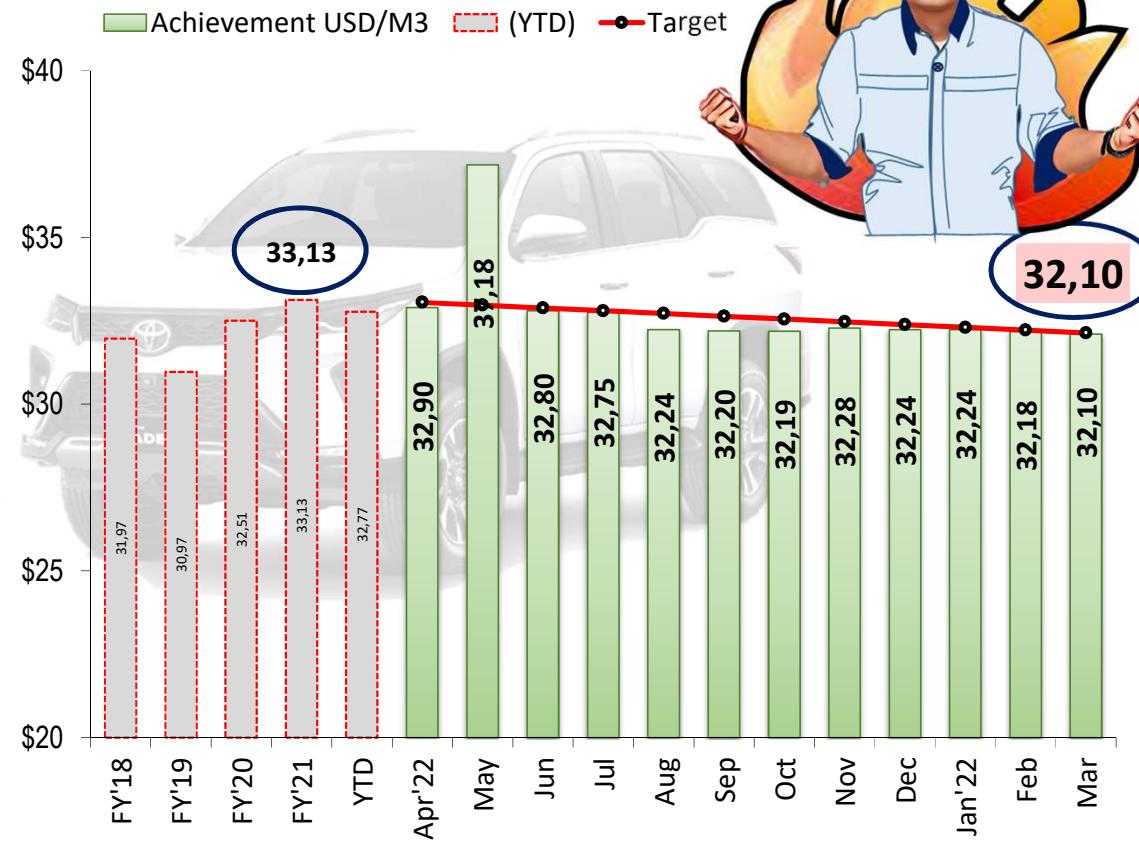
TMMIN
QCP – CFI PBOD **29**

Tangible Benefit – TMMIN CKD Export Competitiveness Level **3**

SOP Timing Improvement	Nov-22
Reduce Container/Month	16 Feu
Rate price container	12.870.791 IDR
CR/Month	205.932.656 IDR
CR/Month	13.821 USD
USD/M3	0,03 USD/M3
Exchange Rate	14.900 IDR
Average M3 FY22	430.274 M3
Gentani FY21	33,13 USD/M3
Gentani FY22	32,10 USD/M3
GAP Reduction	1,03 USD/M3



PBOD Main KPI (Cost) STR Plant

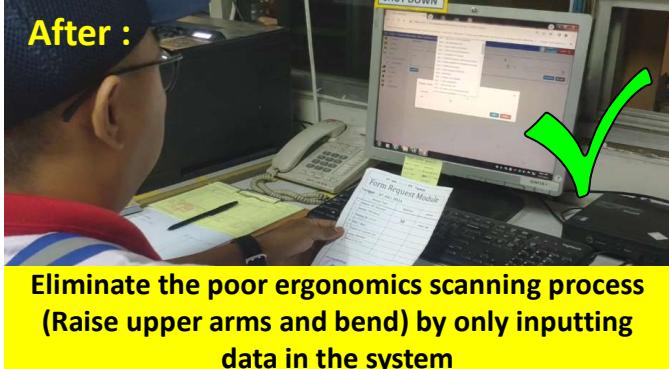
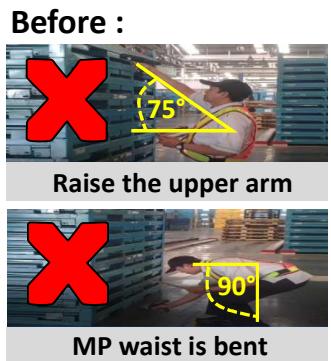




Total Improvement Evaluation

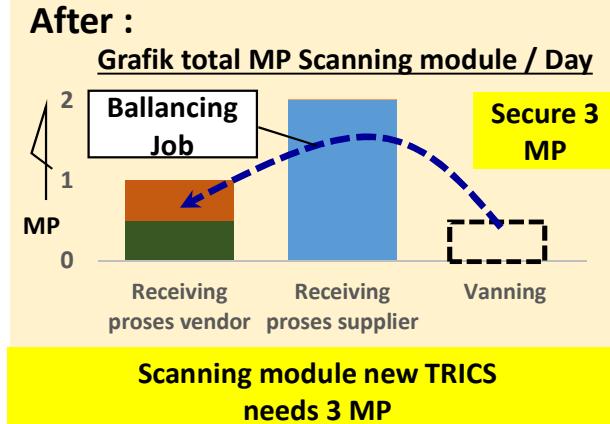
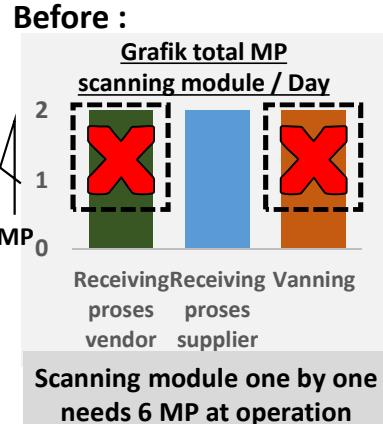
Intangible Benefit

Safety



Tangible Benefit

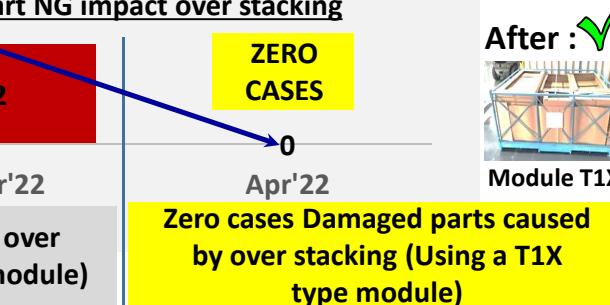
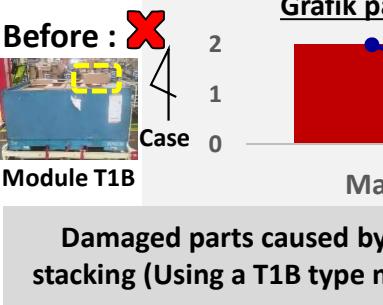
Productivity



Human Resources



Quality





Standardization

Flow Chart Returnable Rack Project For Component Export

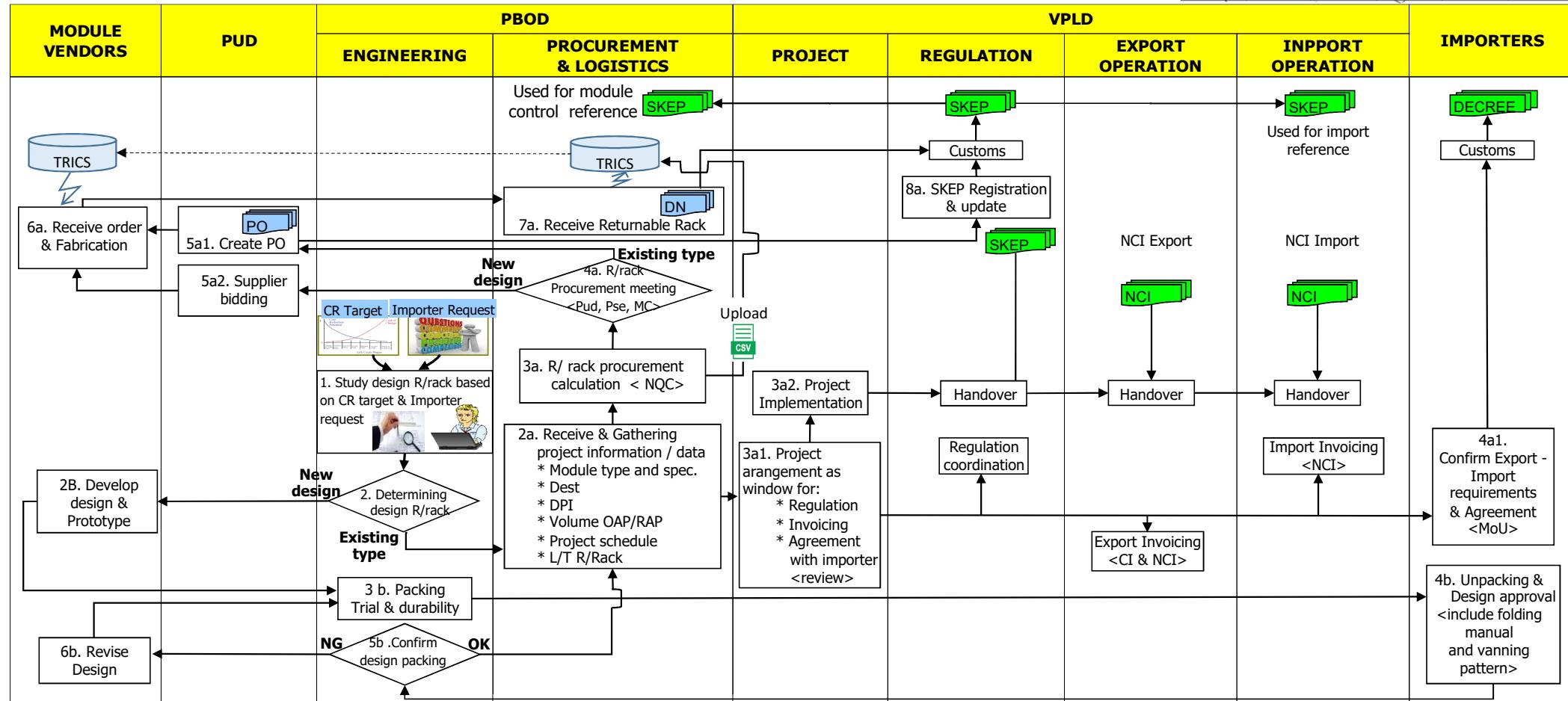
DOC. NO. CEVD - FLOW - ASD730 - MDL- 001

PUD	VPLD	PBOD
 Eko Harry W.	 Ronny P.	 Andhik Yedi


Joneth P.A.


A. Bagus I.


Irum W/ Masruhan



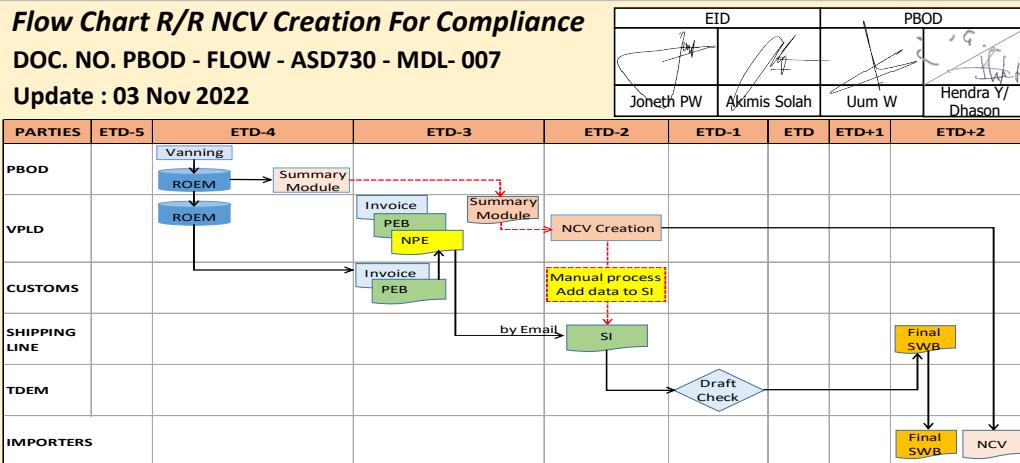


Standardization

Flow Chart R/R NCV Creation For Compliance

DOC. NO. PBOD - FLOW - ASD730 - MDL- 007

Update : 03 Nov 2022



R/R Fabrication Lead Time Standardization [TMMIN- R/R Maker]

DOC. NO. PBOD - FLOW - ASD730 - MDL- 006

Update :
01 Nov 2022

PSM	SKM	MPS	MTU	PRN	PERSO	MTI	PUD	PBOD
Agung	A. Hasyim	Arifin	Malvin	Deded S	Tjetjep J	H.Fathullah	Ronny P	Imelda
Activity	D-12	D-11	D-10	D-9	D-8	D-7	D-6	D-5
Coord. meeting								
Material prep.								
Jig & tools prep.								
Sample check					1 st impr			Final ensuring
Start production								
Start delivery								
Remarks								

> Sourcing material review support by PUD

> Increase vendor skill [Prod Prep]

R/Rack Vanning Pattern Consensus [TMMIN-TMV]

No	Consideration Points	Confirmation Points	Due date	PIC																																																																																																																																																																					
1	<p>Current problem:</p> <ul style="list-style-type: none"> * Lead time empty R/R module before vanning Average 5.5 → 6 Days (rounded) * There are 12 storage / yellow lines for each R/R type [Occupy much area] <table border="1" style="margin-top: 10px; border-collapse: collapse;"> <thead> <tr> <th>Store</th> <th colspan="4">Before</th> <th>Remarks</th> </tr> <tr> <th>Store</th> <th>Type</th> <th>Single</th> <th>Mix</th> <th>L/T</th> <th></th> </tr> </thead> <tbody> <tr><td>1</td><td>T1B</td><td>○</td><td>○</td><td>2</td><td>Single</td></tr> <tr><td>2</td><td>T1X</td><td>○</td><td>○</td><td>3</td><td>Single</td></tr> <tr><td>3</td><td>T3A</td><td>○</td><td>○</td><td>12</td><td>Single/Mix</td></tr> <tr><td>4</td><td>T3M</td><td>○</td><td>○</td><td></td><td></td></tr> <tr><td>5</td><td>T3N/T3P</td><td>○</td><td>○</td><td>6</td><td>Single / Mix</td></tr> <tr><td>6</td><td>T2A</td><td>○</td><td>○</td><td>6</td><td>Single</td></tr> <tr><td>8</td><td>SP3</td><td>○</td><td>○</td><td>5</td><td>Single / Mix</td></tr> <tr><td>9</td><td>SP1</td><td>○</td><td>○</td><td>4</td><td>Mix</td></tr> <tr><td>10</td><td>SM/B1</td><td>○</td><td>○</td><td>4</td><td></td></tr> <tr><td>11</td><td>SP2 HL</td><td>○</td><td>○</td><td>5</td><td>Single</td></tr> <tr><td>12</td><td>SP2 A7</td><td>○</td><td>○</td><td>Single</td><td></td></tr> <tr> <td colspan="4" style="text-align: center;">AVERAGE Lead Time</td><td>5,50</td></tr> </tbody> </table> <p>Storage area Need : 222 M2</p> <table border="1" style="margin-top: 10px; border-collapse: collapse;"> <thead> <tr> <th>Store</th> <th colspan="4">After</th> <th>Remarks</th> </tr> <tr> <th>Store</th> <th>Type</th> <th>Single</th> <th>Mix</th> <th>L/T</th> <th></th> </tr> </thead> <tbody> <tr><td>1</td><td>T1B</td><td>○</td><td>○</td><td>○</td><td>① Can return single or mix but not mix in same stacking</td></tr> <tr><td>2</td><td>T1X</td><td>○</td><td>○</td><td>○</td><td>② Single or Mix</td></tr> <tr><td>3</td><td>T3A</td><td>○</td><td>○</td><td>1</td><td>③ Single or Mix</td></tr> <tr><td>4</td><td>T3M</td><td>○</td><td>○</td><td>2</td><td>④ Single or Mix</td></tr> <tr><td>5</td><td>T3N/T3P</td><td>○</td><td>○</td><td>2</td><td>⑤ Single or Mix</td></tr> <tr><td>6</td><td>T2A</td><td>○</td><td>○</td><td>2</td><td>⑥ Single or Mix</td></tr> <tr><td>8</td><td>SP3</td><td>○</td><td>○</td><td>2</td><td>⑦ Single or Mix</td></tr> <tr><td>9</td><td>SP1</td><td>○</td><td>○</td><td>4</td><td>⑧ Single or Mix</td></tr> <tr><td>10</td><td>SM/B1</td><td>○</td><td>○</td><td></td><td></td></tr> <tr><td>11</td><td>SP2 HL</td><td>○</td><td>○</td><td>4</td><td></td></tr> <tr><td>12</td><td>SP2 A7</td><td>○</td><td>○</td><td>4</td><td></td></tr> <tr> <td colspan="4" style="text-align: center;">AVERAGE Lead Time</td><td>2,50</td><td></td></tr> </tbody> </table> <p>Storage area Need : 138 M2</p>	Store	Before				Remarks	Store	Type	Single	Mix	L/T		1	T1B	○	○	2	Single	2	T1X	○	○	3	Single	3	T3A	○	○	12	Single/Mix	4	T3M	○	○			5	T3N/T3P	○	○	6	Single / Mix	6	T2A	○	○	6	Single	8	SP3	○	○	5	Single / Mix	9	SP1	○	○	4	Mix	10	SM/B1	○	○	4		11	SP2 HL	○	○	5	Single	12	SP2 A7	○	○	Single		AVERAGE Lead Time				5,50	Store	After				Remarks	Store	Type	Single	Mix	L/T		1	T1B	○	○	○	① Can return single or mix but not mix in same stacking	2	T1X	○	○	○	② Single or Mix	3	T3A	○	○	1	③ Single or Mix	4	T3M	○	○	2	④ Single or Mix	5	T3N/T3P	○	○	2	⑤ Single or Mix	6	T2A	○	○	2	⑥ Single or Mix	8	SP3	○	○	2	⑦ Single or Mix	9	SP1	○	○	4	⑧ Single or Mix	10	SM/B1	○	○			11	SP2 HL	○	○	4		12	SP2 A7	○	○	4		AVERAGE Lead Time				2,50		<p></p> <p></p> <p></p> <p></p>
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TMMIN Benefit: Reduce Lead time 3 Days
TMV benefit : Reduce Storage Empty R/R = 84 M2

Collaboration Activity Documentation



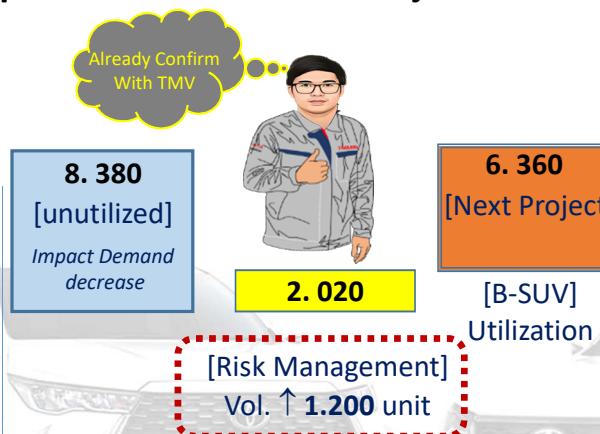
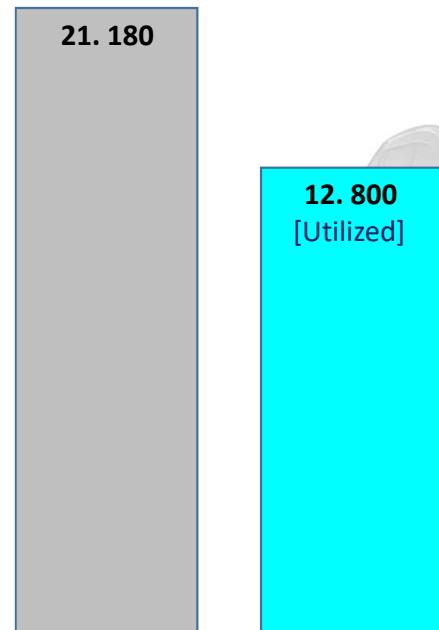
Yokoten & Next Action

TMMIN
QCP – CFI PBOD

33

Yokoten Activity Utilize Competitiveness in B-SUV Project

R/R [Units]



No	Type	Qty	Vol 1.200	Project D03 STEP #1			Utilization	Utilize	New
				KUO	STM	TMT			
1	T1B	5.650	0	5.200		450	5.650	O	5.650
2	SP2	625	625				X		
3	T1X	600	600				X		
4	T2A	1.305	795				Δ [modif]	510	0
5	T3P	200	0	990			O	200	790
TOTAL		8.380	2.020	6.190	0	450	6.640	6.360	790
6				650				510	140
7				900	720	0		0	1620
TOTAL		0	0	1.550	720	0	2.270	0	1.760
GRAND TOTAL		8.380	2.020	7.740	720	450	8.910	6.360	2.550

B & C-MPV Investment

Unitized stock

Risk Management & B-SUV Project utilization

B-SUV [KUO-STM-TMT]
Need 8. 910 units R/R

Total: 42 Bio

2. 550 Unique type [29%]
6. 360 Utilize [71%]

Direct utilization [66%]

T1B [5. 650]
T3P [200]



Modification [5%]

T2A → T1F [510]



[2.5 Bio]

Total : 14.1 Bio

Save: 27.9 Bio

B-SUV Step#1 R/R Necessity

New R/R Procurement

Next Planning B-SUV [D03* Project]

Current Situation



Yokoten & Next Action

TMMIN
QCP – CFI PBOD

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Next Project Activity Improvement

Mother Company [TMC] Housin : Sustainable Growth towards new mobility business

TMMIN - Company Journey: Effort to Level up Competitiveness

SR#2 Expansion

PBOD FY 23/24 Housin:

- ② Continuous & consistent structural reform to achieve competitiveness beyond the best.

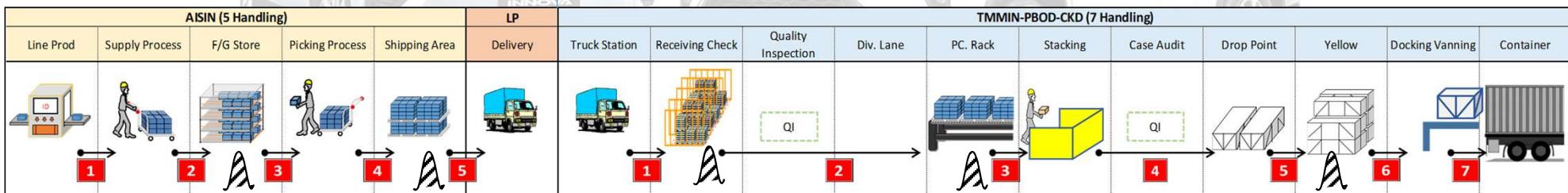
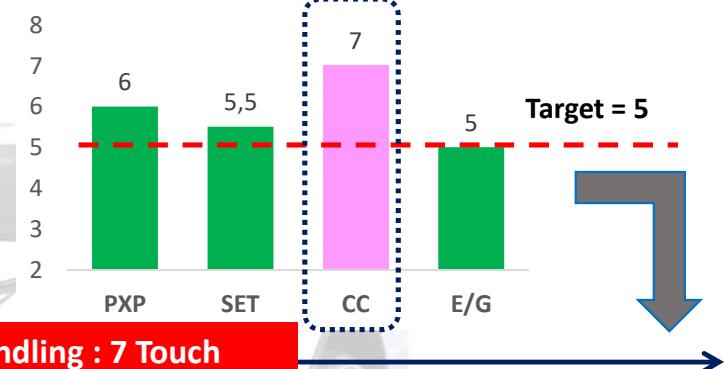
2.A.1 Constructive destruction of compacting process through enhance smooth & slim production of packing vanning

- > Slim : Simple process: finish module & vanning to the supplier
- Target : 5 touch < Handling in process



TMMIN Handling : 7 Touch

Handling touching



Min / Max Lead - Time : (12 H - 1.5 Day)

Min / Max Lead - Time : (14 H - 2.5 Day)

Next Thema:

“ Slim & Simple Process [One Touch Handling] Level Up Handling Supplier AISIN Indonesia”

thank you



for Being Part of Solutions