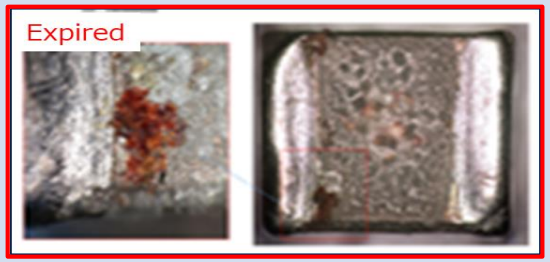
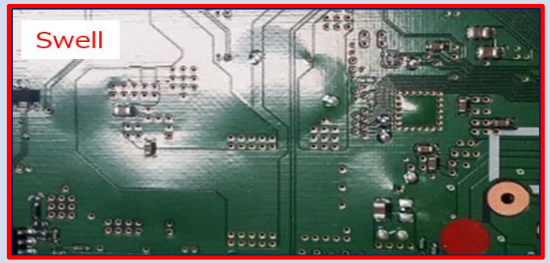
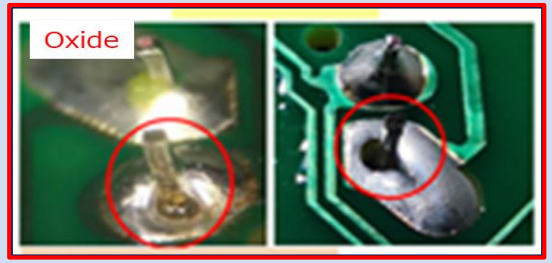
Improvement PCB Child Part system

BACKGROUND

PCB child parts it is a group of parts with global use and high market competition. Therefore, parts must be ordered to be stored for production. When the production plan is reduced, so do the remaining parts.

Stock remain Y2022	Affect [Parts Expire]	Action
 HT **Amount 287.55MB. [1,410 Items]**  RA	  	1.Sort parts 2.Self quality guarantee 3.Control use of parts

BACKGROUND

Issue

-Manual checking of expired parts is causing an excessive workload

-Quality control is compromised, and overall product quality is at risk due to shortcomings in the implementation of the First-In-First-Out (FI-FO) methodology

-The absence of a real-time Free/Fix location system is impeding the progress tracking of stock.

Current Operation flow

Receiving & Inspection

Free location

Move & keep part

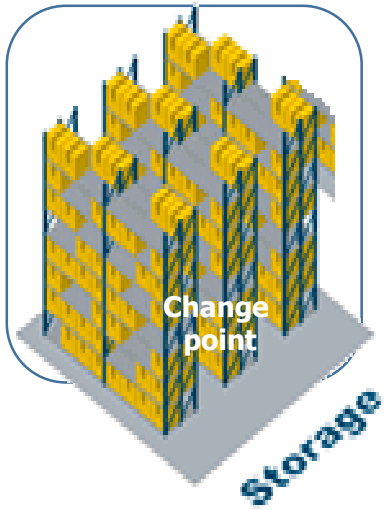
Store fixed

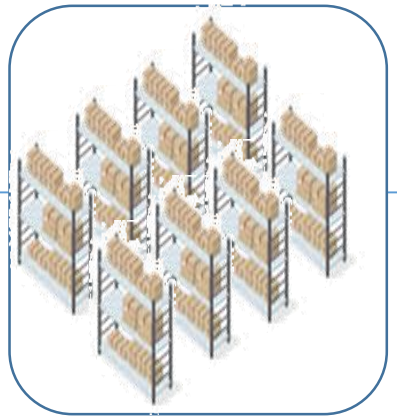
1.Repackage
2.Create label
3.Store-In

Picking store out

Supply

MFG3 Use part





OPERATION SYSTEM

Current operation flow

1) Receiving

Scan EDI [SIAM]

Child PCB

3) Free location

Strategy system

- Regist
- Scan EDI
- Keep part free location refer PO

4) Store Fixed

Store_1

Store_2

Store_3

Store-in

Store-out

Scan serial in stock

Scan serial out stock

Min-Max stock

5) MIZU

- Double check
- Conf. PNDB
- Prepare part supply production

6) PCB_ASS'Y

SMT

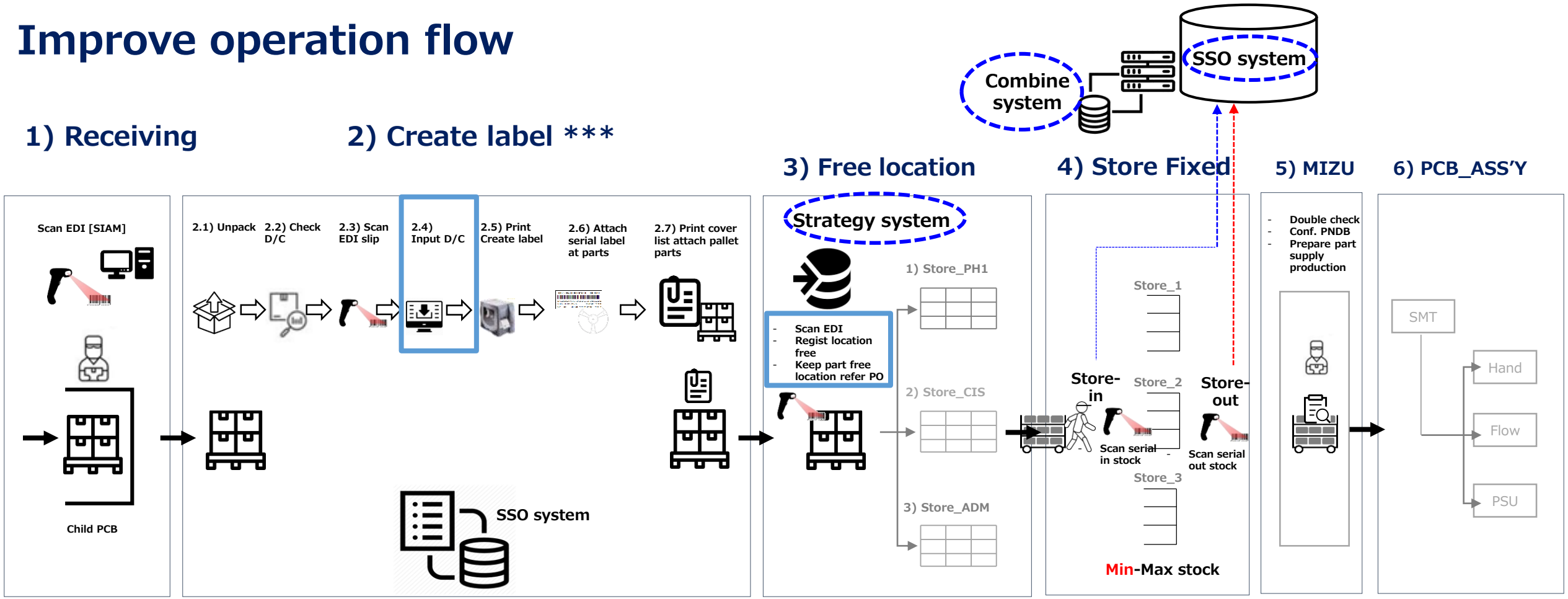
Hand

Flow

PSU

OPERATION

Improve operation flow

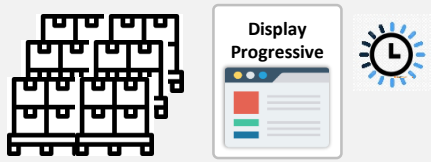
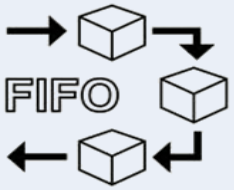
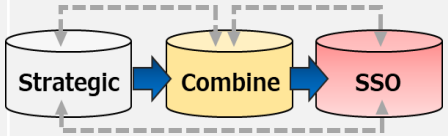


RA = xxx items

RA = 1,877 items

PURPOSE

Objective : PCB Child Part Control

No	Detail	Condition	Target
①	Progress stock Free Location / Fix location / Inventory control real time		PCB child Parts RA =1,877 items
②	FI-FO control quality up		
③	Manage outstanding stock by implementing IT systems to control		
④	Reduce work load check expired parts		
⑤	Link system Strategic stock / Combine / SSO		

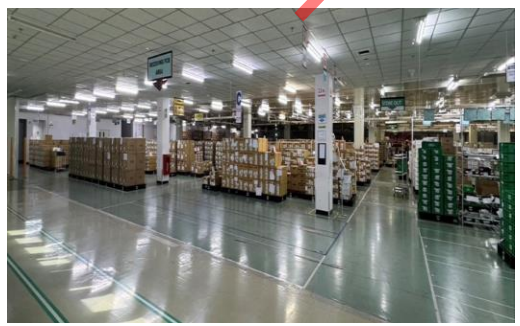
TARGET

Child parts PCB = 1,877 items

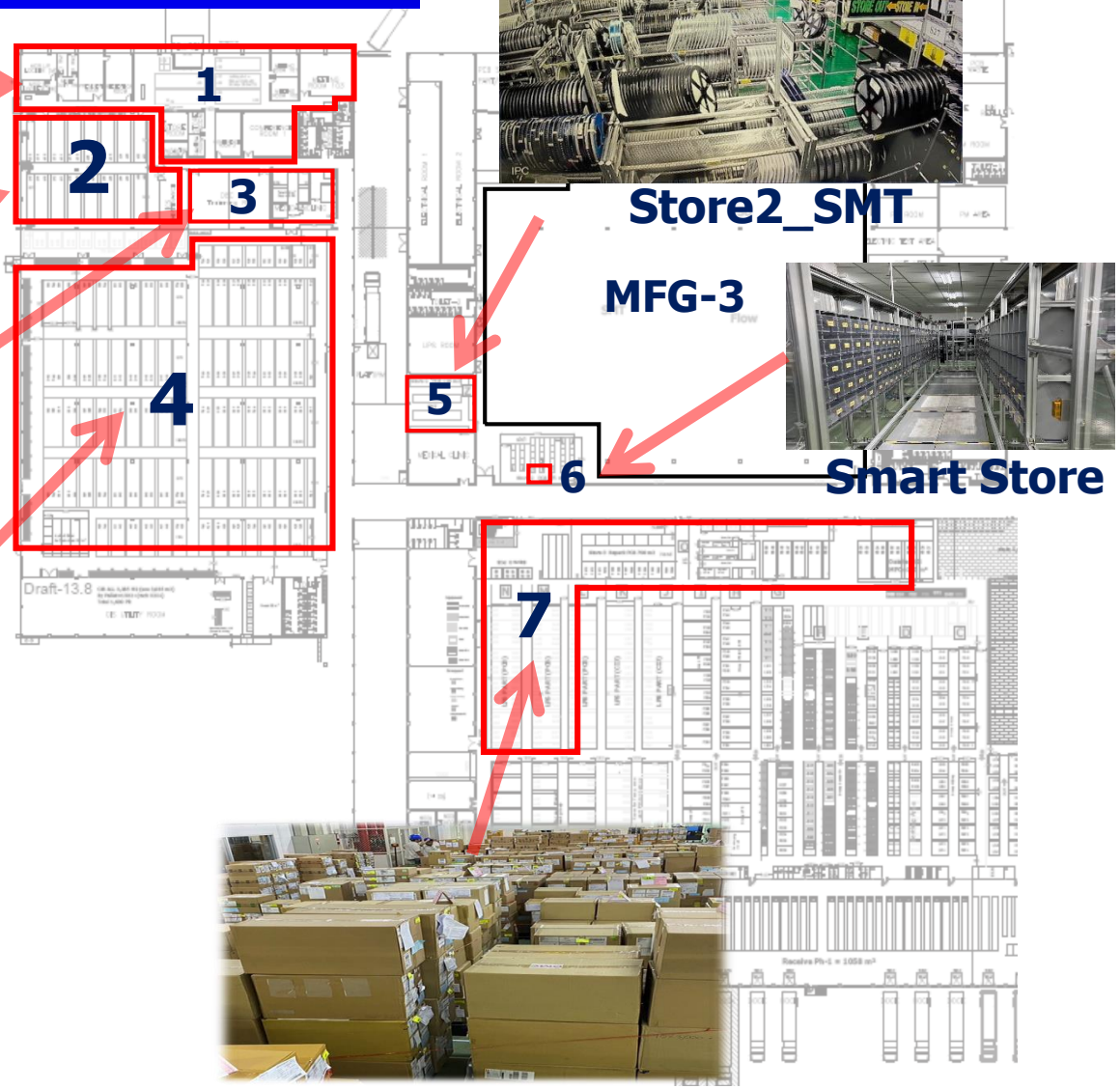
Store1_PCB

Store ADM

Store Important



Store CIS

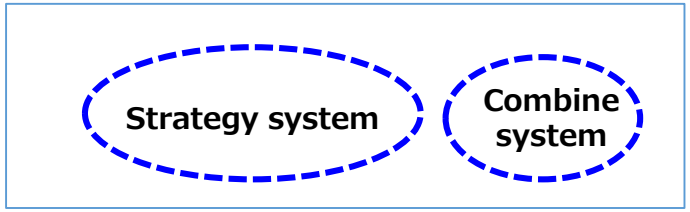


Store2_SMT

Smart Store

Store3_PCB & Store PH1

TARGET



Test server → Actual server

PLAN PCB PART CONTROL

Schedule PCB Improvement IT

No	Detail	P.I.C		Jan'24		Feb'24				Mar'24				Apr'24			
				22-26	29-31	5-9	12-16	19-23	26-29	4-9	11-15	18-22	25-29	1-5	8-11	18-20	22-26
1	Issue concept idea	Surasak / Supakorn	plan														
			actual														
2	Confirm detail get requirement / concept	Store PCB/IT member	plan														
			actual														
	-Get detail Combine and Strategy	Store PCB/IT member	plan														
3	Design system	Supakorn	plan														
			actual														
	-User interface design	User	plan														
	-system flow	Supakorn	plan														
	-Structure DB		plan														
	-IT working grop flow "start dev"	Supakorn/Surasak/ICS	plan														
	-Infrom manager	Supakorn															
4	Start develop system	Supakorn	plan														
			actual														
	-Combine system(Calling parts)		plan														
	-update detail after get requirement / concept		plan														
	-Strategy system(Calling parts)		plan														
	-update detail after get requirement / concept		plan														
7	Trail test	Store PCB/IT member	plan														
			actual														
	-debug testing	Store PCB/Supakorn	plan														
	-User manual system		plan														
	-Traning users		plan														
8	Start use New system	Store PCB/IT member	plan														
			actual														
	-IT working grop flow "Golive"	Supakorn/Nattapong/ICS	plan														
9	Follow up & action problem	Store PCB/IT member	plan														
			actual														

Equipment support

26/01/2024

Plan-Major | Plan-minor | actual | Waiting for information | Not in IT process

PLD DIV.
DBC-RA2

ACTION PLAN PCB PART CONTROL

Completed | On schedule | Delay | Recovery

No	Detail	P.I.C	Jan'24		Feb'24				Mar'24				Apr'24			
			22-26	29-31	5-9	12-16	19-23	26-29	4-9	11-15	18-22	25-29	1-5	8-11	18-20	22-26
1	Issue concept idea	Surasak / Supakorn														
2	Confirm detail get requirement / concept	Store PCB/IT member														
3	Design system	Supakorn														
4	Start develop system	Supakorn														
5	Layout setting support new operation	Arnon														
6	Equipment support	Surasak /Armon														
7	Trail test	Store PCB/IT member														
8	Start use New system	Store PCB/IT member									Start PCB part control_18 Mar 24					
9	Follow up & action problem	Store PCB/IT member														

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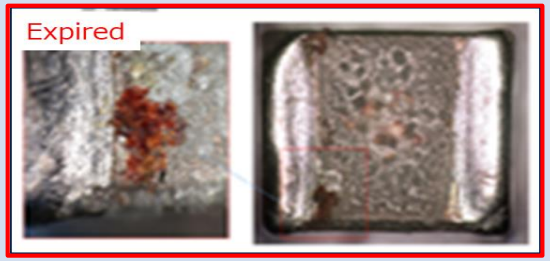
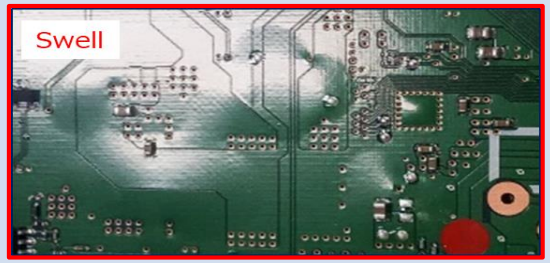
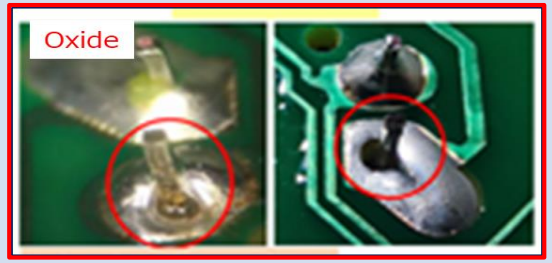
 **HT** **Amount 287.55MB. [1,410 Items]**  **RA**	  	1.Sort parts 2.Self quality guarantee 3.Control use of parts

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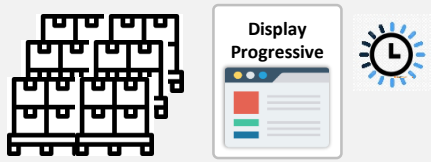
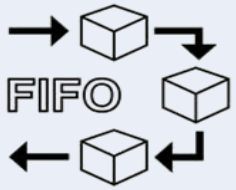
①	Progress stock Free Location / Fix location / Inventory control real time		PCB child Parts RA =1,877 items 
②	FI-FO control quality up		
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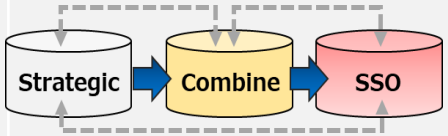
⑤	Link system Strategic stock / Combine / SSO		

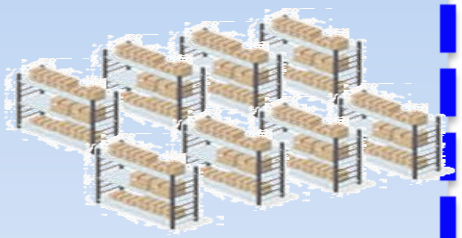
CONCEPT PCB PARTS CONTROL

Link Sub System

Receiving & Inspection

Free location

Store fixed



Picking store out

MFG3 Use part

Strategic → Combine → SSO

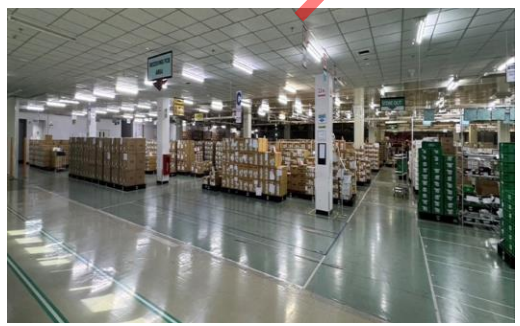
TARGET

Child parts PCB = 1,877 items

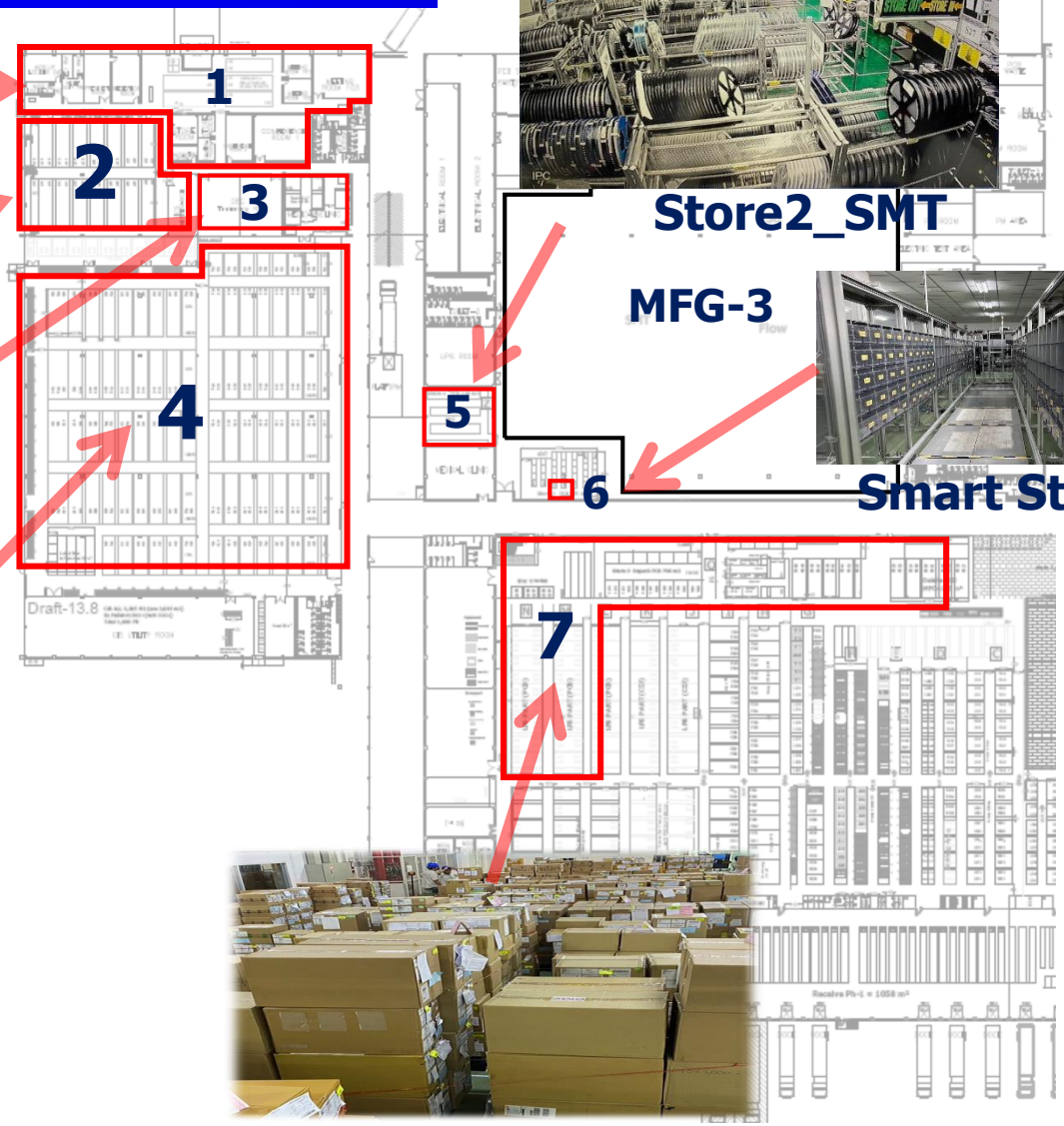
Store1_PCB

Store ADM

Store Important



Store CIS



Store2_SMT

Smart Store

Store3_PCB & Store PH1

MERIT & BENEFIT (ROI)

1) Reduce work load operation [Merit]

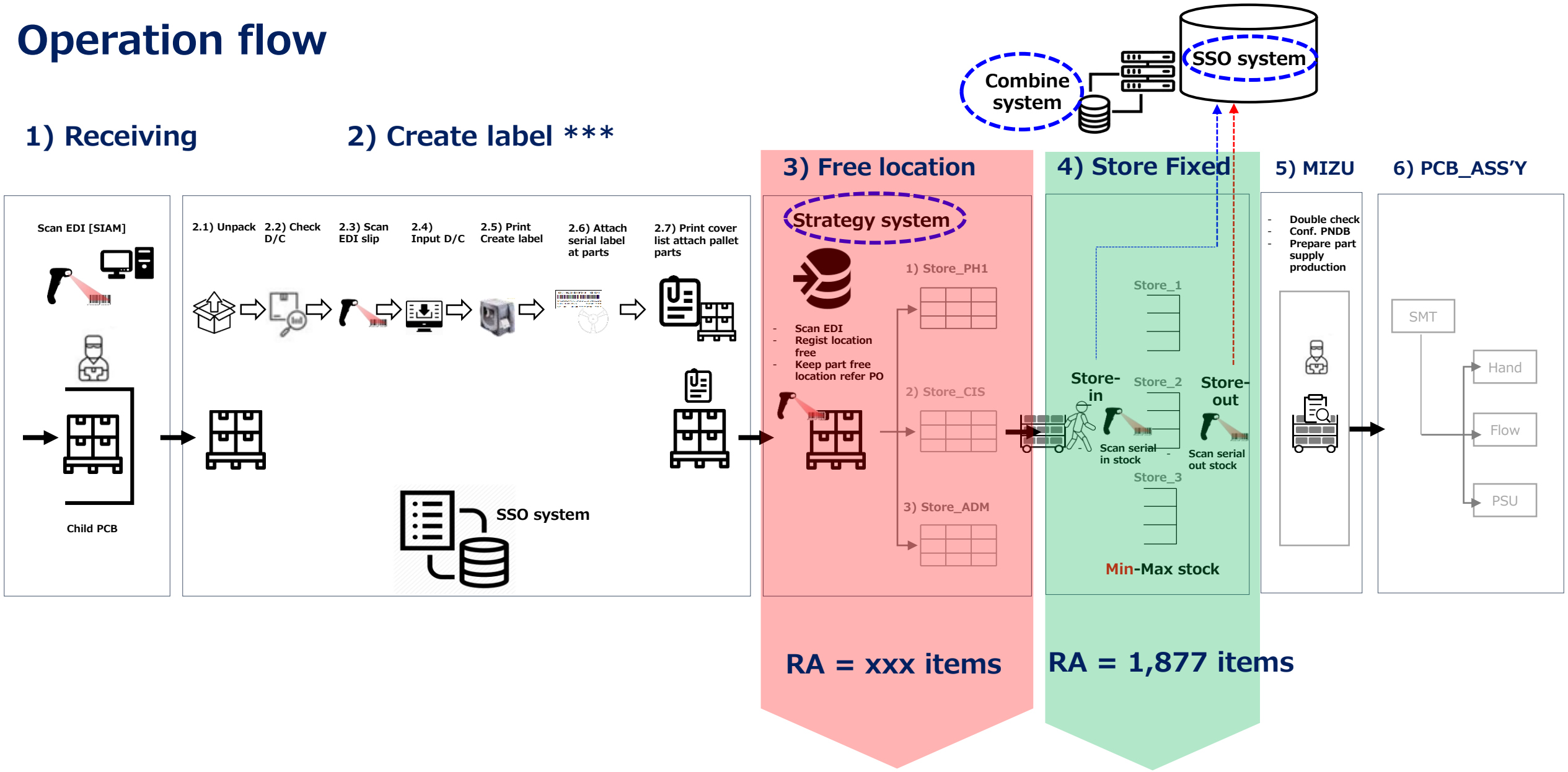
No	Detail	Work load reduce [min.]	Items	Reduce work load [min.]
1	Reduce work load input data part expired	8.25	1,376	11,352.00
2	Reduce work load operation picking part store free location from store fix	xxx	xxx	xxx
	Total			

2) Inventory accuracy management [Benefit]

No	Detail [Refer Index dept.]
1	Support result Annual Tanaoroshi **ABS ≤ 0.01 % [PCB part]**
2	Control Quality Shelf Life Management PCB Child Parts not input part expire affect quality = **0 Time**
3	Support Control stock T/O end year = **16.02 day , Amount 629 MB. (End year)**

PROCESS FLOW / OPERATION SYSTEM

Operation flow



MAIN POINT EQUIPMENT SETTING / LOCATION

EQUIPMENT SUPPORT

No	Equipment name	Equipment
1	Computer	
2	Sato Printer / Label / Ribbon	
3	Barcode Reader	

>> Use current equipment DBC

OTHER CONDITION

No	Topic	Detail
1	How many year data keep	5 Year
2	How many client use	40-50 pers.
3	How many frequency use	800-1,000 Time
4	This project has relate data to other system	PCB PARTS CONTROL