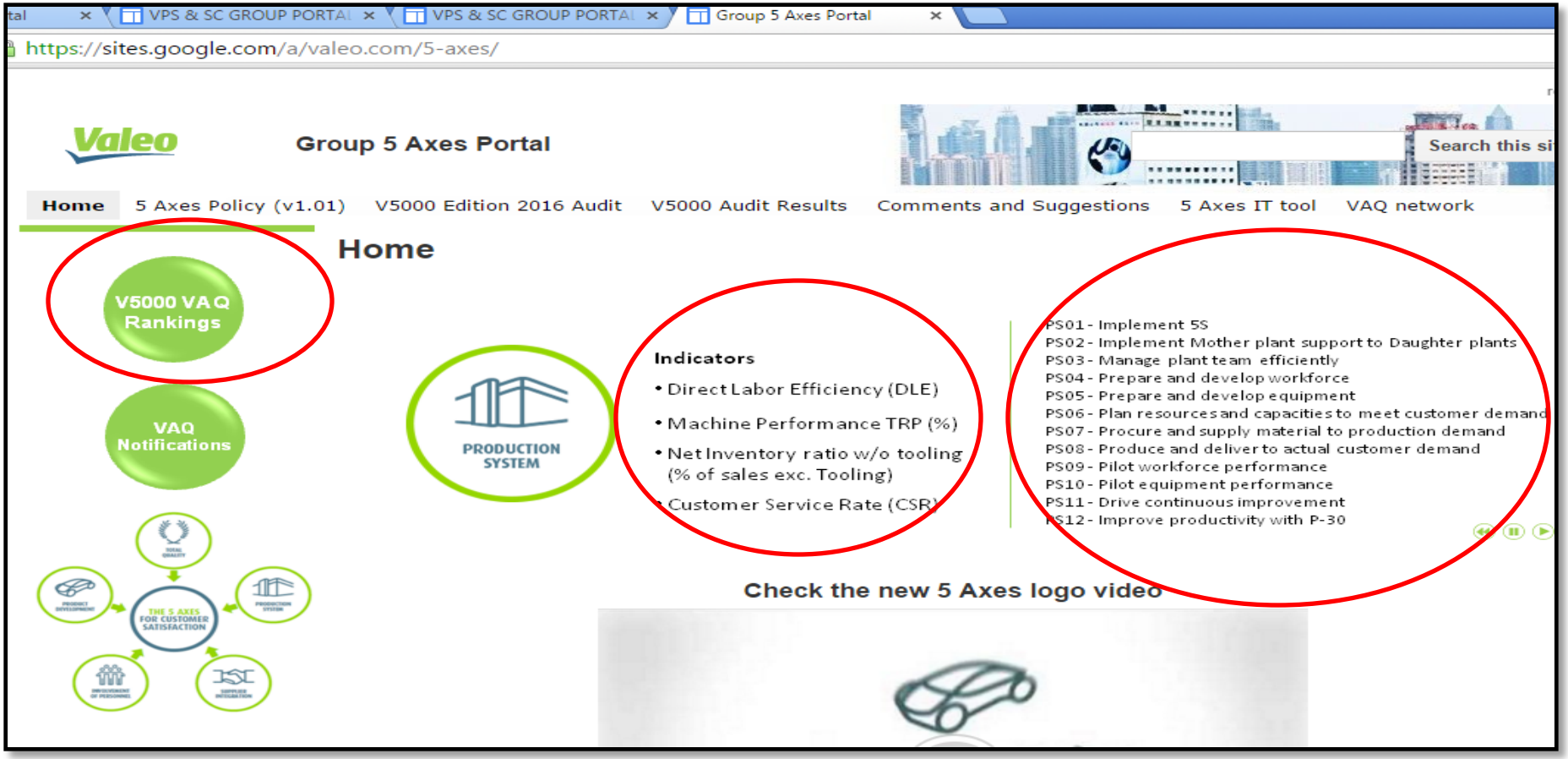
Valeo 5 Axes

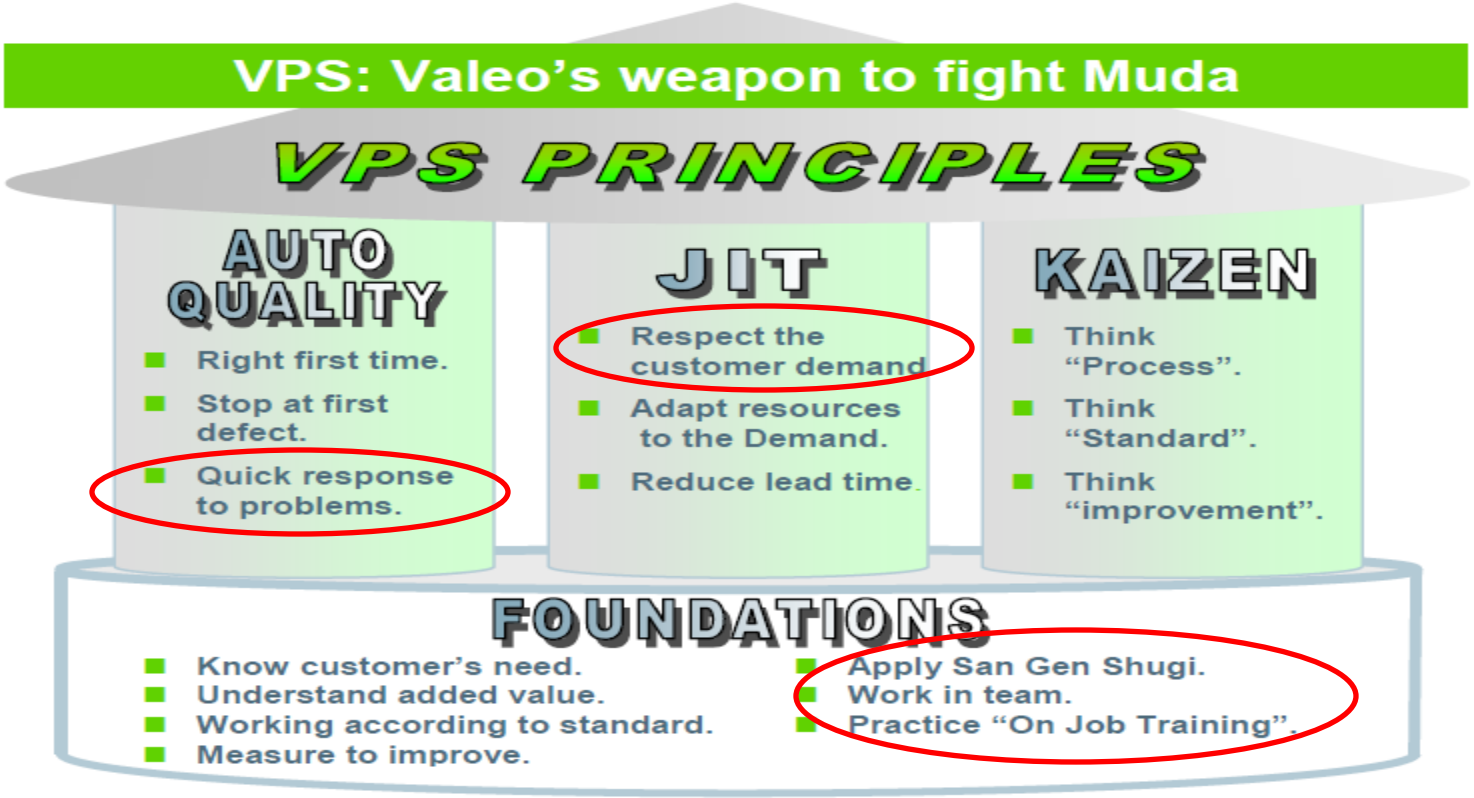
The 5 Axes are pivotal for Customer satisfaction. They are:

- Total Quality (TQ),
- Involvement of Personnel (IP),
- Supplier Integration (SI),
- Product Development (PD),
- Production System (PS).

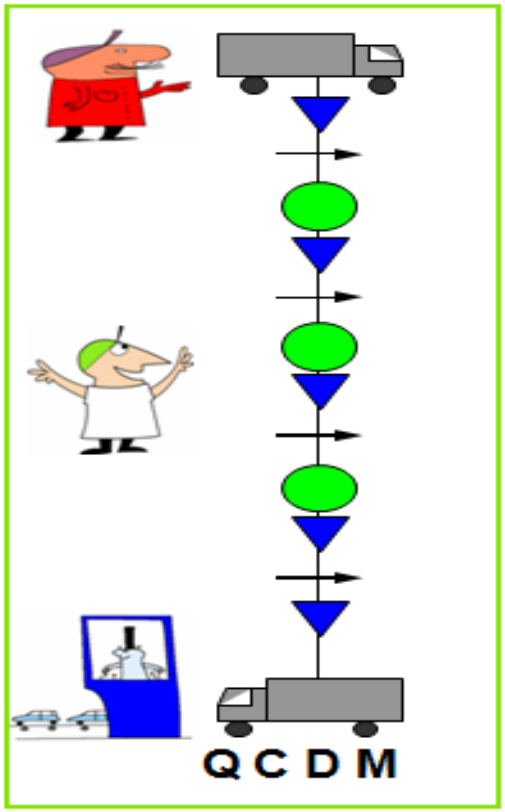
5 Axes sys


VPS & SC GROUP PORTAL
VPS & SC GROUP PORTAL
Group 5 Axes Portal
https://sites.google.com/a/valeo.com/5-axes/
Valeo
Group 5 Axes Portal
Search this si
Home
5 Axes Policy (v1.01)
V5000 Edition 2016 Audit
V5000 Audit Results
Comments and Suggestions
5 Axes IT tool
VAQ network
Home
V5000 VAQ Rankings
VAQ Notifications
PRODUCTION SYSTEM
Indicators
• Direct Labor Efficiency (DLE)
• Machine Performance TRP (%)
• Net Inventory ratio w/o tooling (% of sales exc. Tooling)
• Customer Service Rate (CSR)
PS01 - Implement 5S
PS02 - Implement Mother plant support to Daughter plants
PS03 - Manage plant team efficiently
PS04 - Prepare and develop workforce
PS05 - Prepare and develop equipment
PS06 - Plan resources and capacities to meet customer demand
PS07 - Procure and supply material to production demand
PS08 - Produce and deliver to actual customer demand
PS09 - Pilot workforce performance
PS10 - Pilot equipment performance
PS11 - Drive continuous improvement
PS12 - Improve productivity with P-30
THE 5 AXES FOR CUSTOMER SATISFACTION
Check the new 5 Axes logo video

PS: Production system


VPS: Valeo's weapon to fight Muda
VPS PRINCIPLES
AUTO QUALITY
Right first time.
Stop at first defect.
Quick response to problems.
JIT
Respect the customer demand
Adapt resources to the Demand.
Reduce lead time.
KAIZEN
Think "Process".
Think "Standard".
Think "improvement".
FOUNDATIONS
Know customer's need.
Understand added value.
Working according to standard.
Measure to improve.
Apply San Gen Shugi.
Work in team.
Practice "On Job Training".

VPS BASICS
VPS TOOLS LOGIC



QCDM Follow up

Foundation

1.Purpose

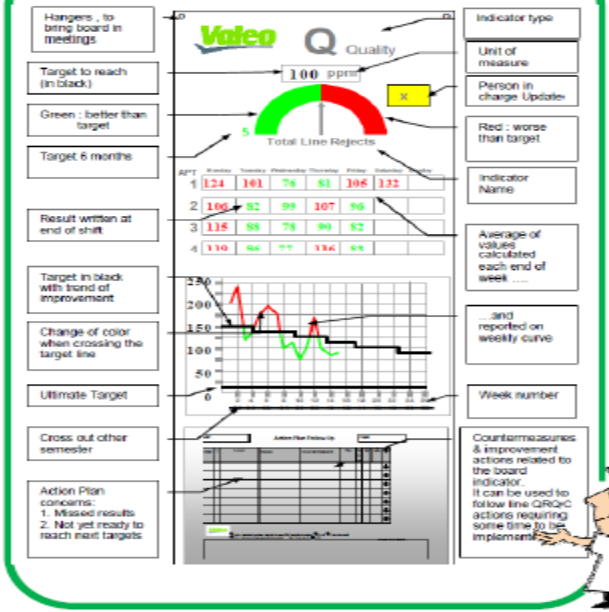
Valeo associates 4 partners working together :

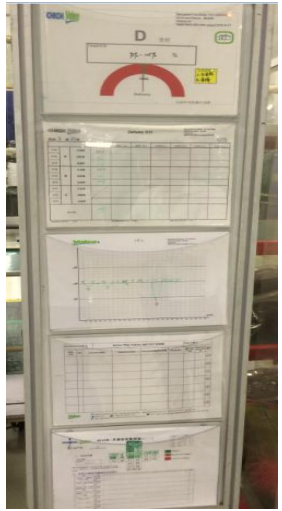
Valeo performance is good when each partner is satisfied.
We must therefore monitor visually QCDM indicators.

2.Type

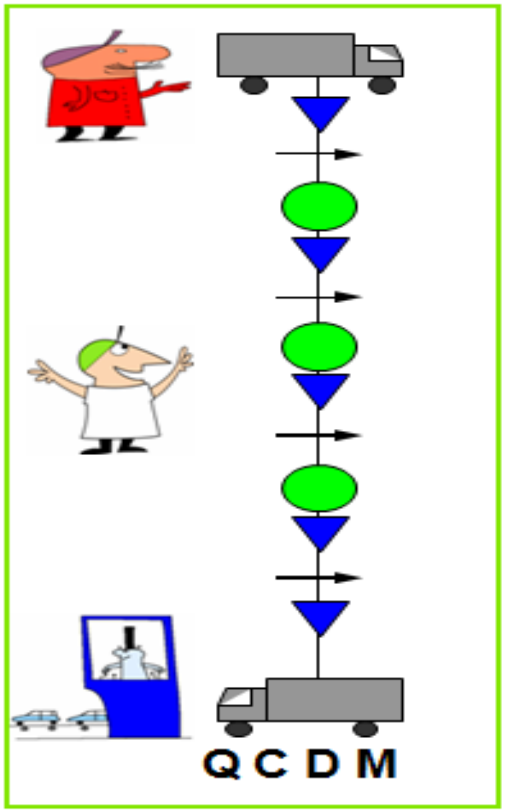
Type	Q Quality	C Cost	D Delivery	M Motivation
Indicator (unit)	Total Line Rejects (ppm)	KOSU (sec/piece)	Service rate (%)	Accident free period (days)
Indicator (unit)	Defects (nbr)	TRP (%)	MPS respect rate (%)	Implemented Improvement Proposals (nbr)
Indicator (unit)	Scrap cost (local currency)	Breakdowns (min)	Changeover time (sec or min)	5S (level)

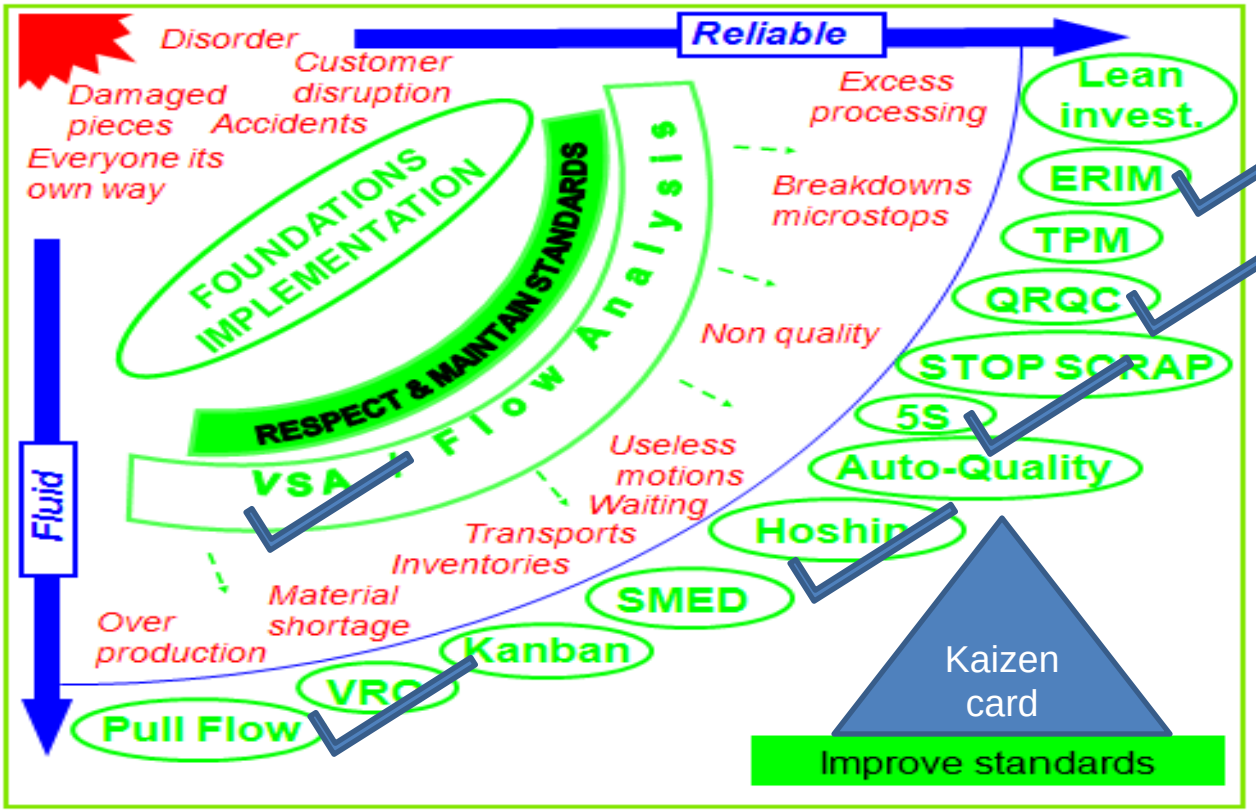
3. Example





VPS BASICS
VPS TOOLS LOGIC





7 MUDA（Part1）

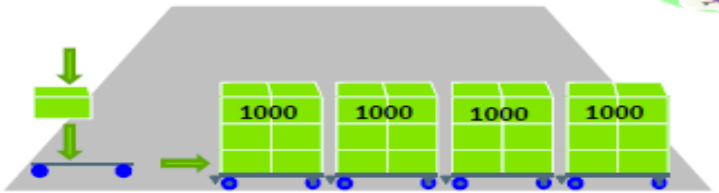
Which MUDA it is ?

Foundation

OVER Production

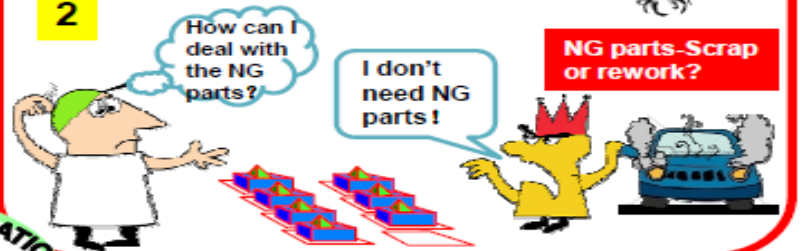
1

Produce more than customer need-CAN CREATE OTHER MUDA



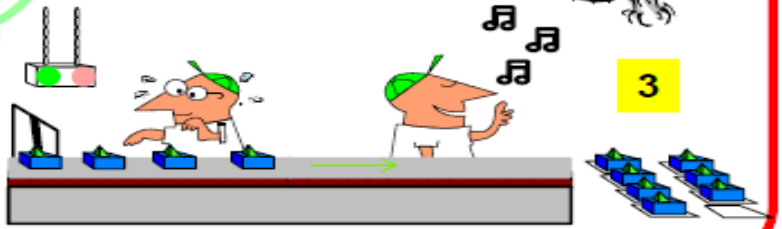
Non Quality

2



Waiting

People or machine



3

7 MUDA（Part2）

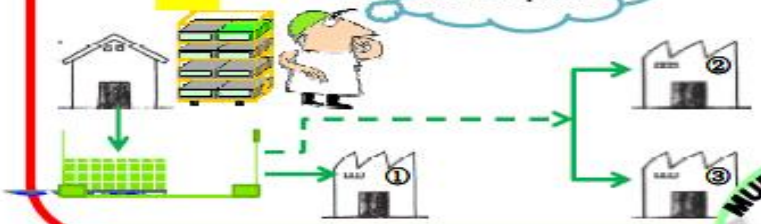
Foundation

Transports

Long distance

4

Far away from WH 2 to plant 3



Motion useless

6

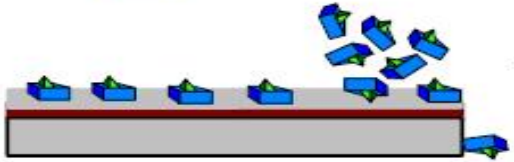
I need more than 4 hands

Difficult and complex to operate

Inventory

Lots of WIP & FG

5



Excess processing

7

Using luxurious machine or tool to do a simple job

10 million machine is used to move bins!?

Valeo

Find 5S method card in portal

5S

Foundation

1S. SEIRI Sweep Away

First of all, I sweep away the things that are of no use to me,
after asking myself if they can be re-used or recycled.
If the answer is no, I get rid of them.

1 st S

2S. SEITON Sort

I sort out what is left and find a suitable place for it ,
close place if I use it often or if it is hard to handle.

2 nd S

3S. SEISO Spotless

I then clean to make things spotless . If I find leakages, stains, etc... I fix them myself if I can or I ask for help.

3 rd S

4S. SEIKETSU Standardize

I standardize that is to say I draw up simple and visual 5S standards.

4 th S

5 th S

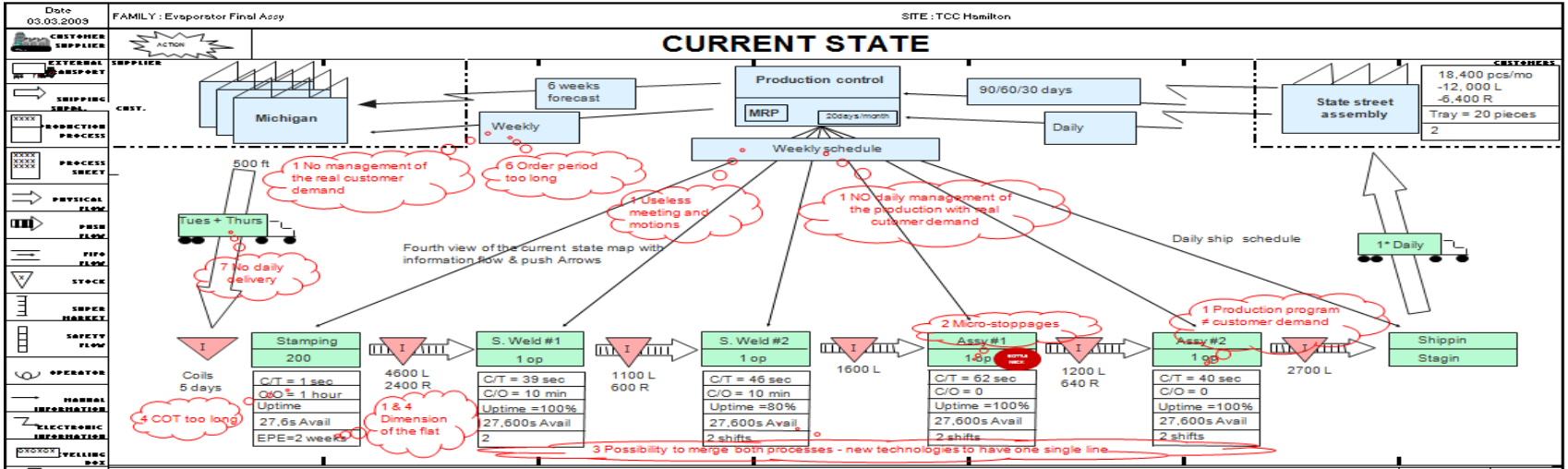
Preparation

Improve working efficiency

5S.SHITSUKE Sustain

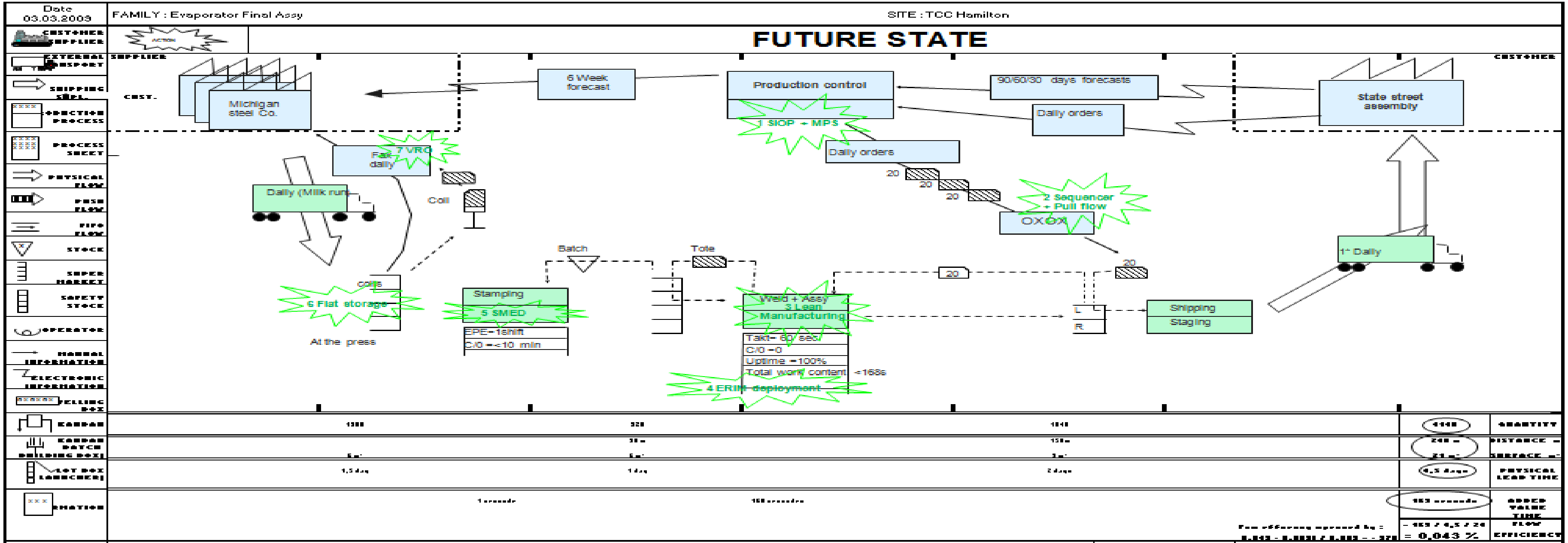
I sustain these standards and progress by continually improving them.

Work shop: VSA (Value Stream Analysis) 1



	Issues / Root causes	Analysis
1	No driving of production program according to customer demand	No sequencer to pilot Assy line and internal kanban to work according to customer demand
2	Assy line 1 slower than customer takt time with mirostoppages	To many micro-stoppages and speed of workstation not optimized
3	4 operations in 4 separate workstations with inbetween transports and handlings	Rework building of the line > lean manufacturing workshop ?
4	COT on stamping machine = 1 hour	Not enough flexible to implement kanban and reduce the batch size
5	1 weekly logistic motion to production to deliver the production schedule, daily review	Link to 1, sequencer and kanban = autonomous production.
6	Weekly schedule to supplier of coils	No daily follow-up of customer demand to optimize material entrances
7	2 deliveries by week of coils	Stock to high, no optimization of flat storage

Work shop: VSA (Value Stream Analysis) 2



	Kaizen Workshops - Suggestions	Pilot	Planning			
			P	D	C	A
1	SIOP - MPS full deployment > single info, autonomous production management	MS	wk 34	wk 35	wk 38	wk39
2	Sequencer implementation > FG stock = 2 vs 4,5 days	DH	wk 34	wk 07	wk 13	wk 14
3	Lean manufacturing workshop > 1 single process vs 4 workstations > CT = 168 vs 188 sec, eliminate 8,8 day TT	JT	wk 34	wk 40	wk 09 (Y1)	wk 13
4	TPM deplyment on assy line > welder uptime = 100%	FB	wk 34	wk 07	wk 13	wk 14
5	SMED workshop on stamping machine N°4 > from 60 min to 10 min., TT from 7,6 to 1 day	FB	wk 34	wk 03	wk 07	wk 08
6	Flat storage on incoming warehouse > 150 sqm	DH	wk 34	wk 44	wk 48	wk 49
7	VRO implementation > 5 days TT to 1,5 day	DH	wk 34	wk 40	wk 44	wk 45

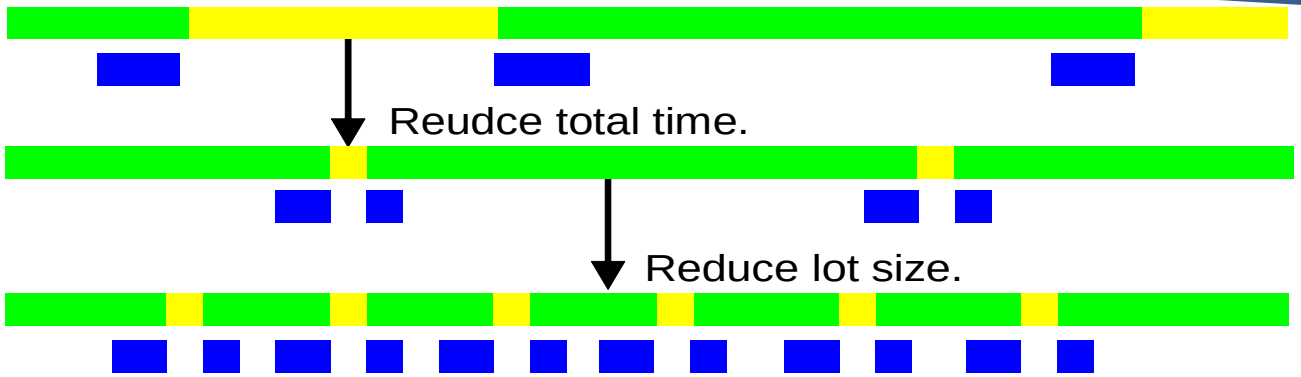
Work shop: SMED

快速换型

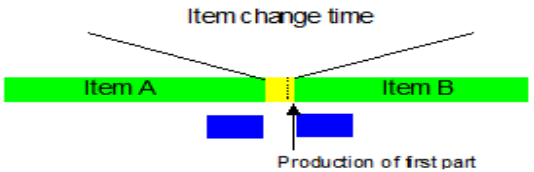
1.SMED Definition

SMED use to reduce CO time, increase CO frequency to reduce stock

Link to “D”, DPM, Flexibility



Production
INTERNAL operation, performed while the machine is stopped.
EXTERNAL operation, performed during production by the machine.



VPS WORKSHOP = VPS improvement project

Workshop Board

A monitoring, communicating, dialogue and management tool.

Title

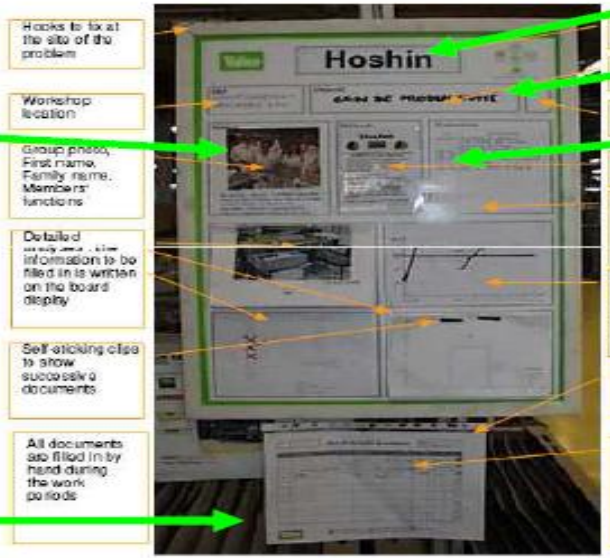
Target

Methodology

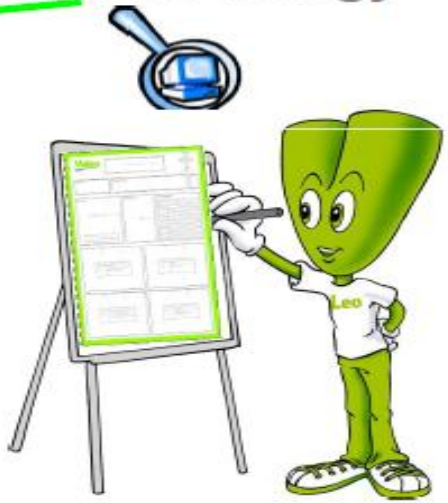
Team

Analysis

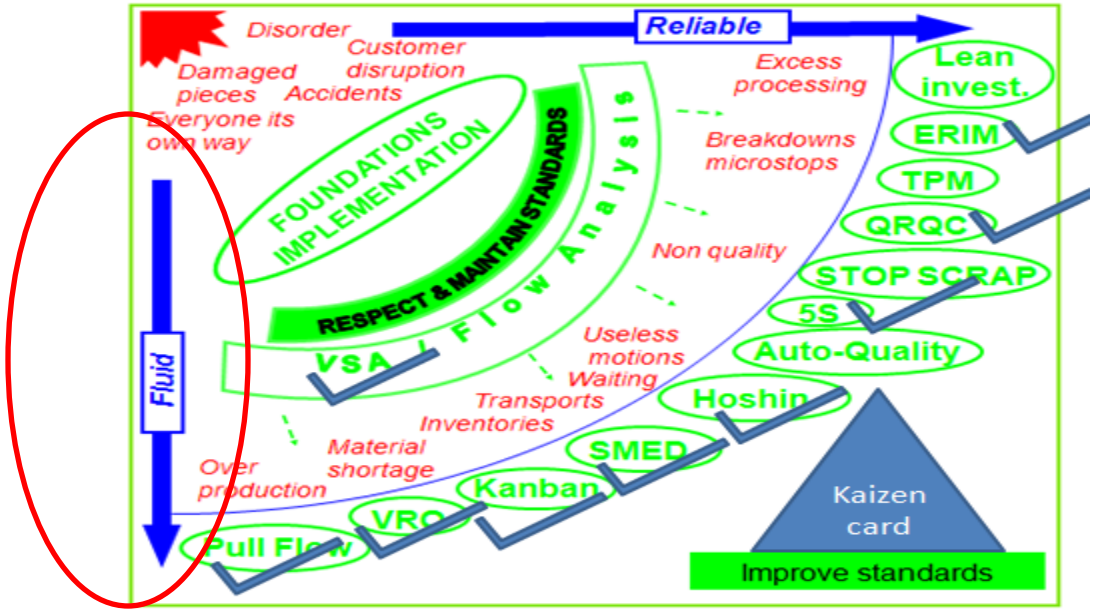
Action Plan



The board is displayed at the workshop site and is visible to the work group members



Next: Supply Chain Management (Fluid)

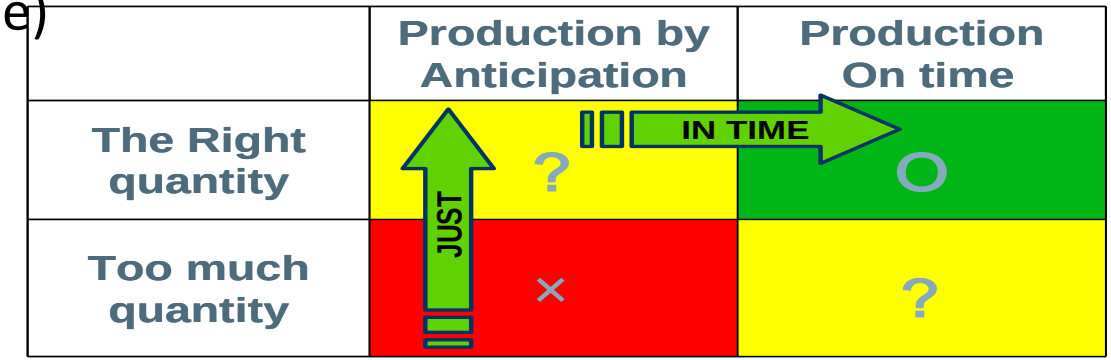


Microsoft Office
PowerPoint Presentat

SCM introduction

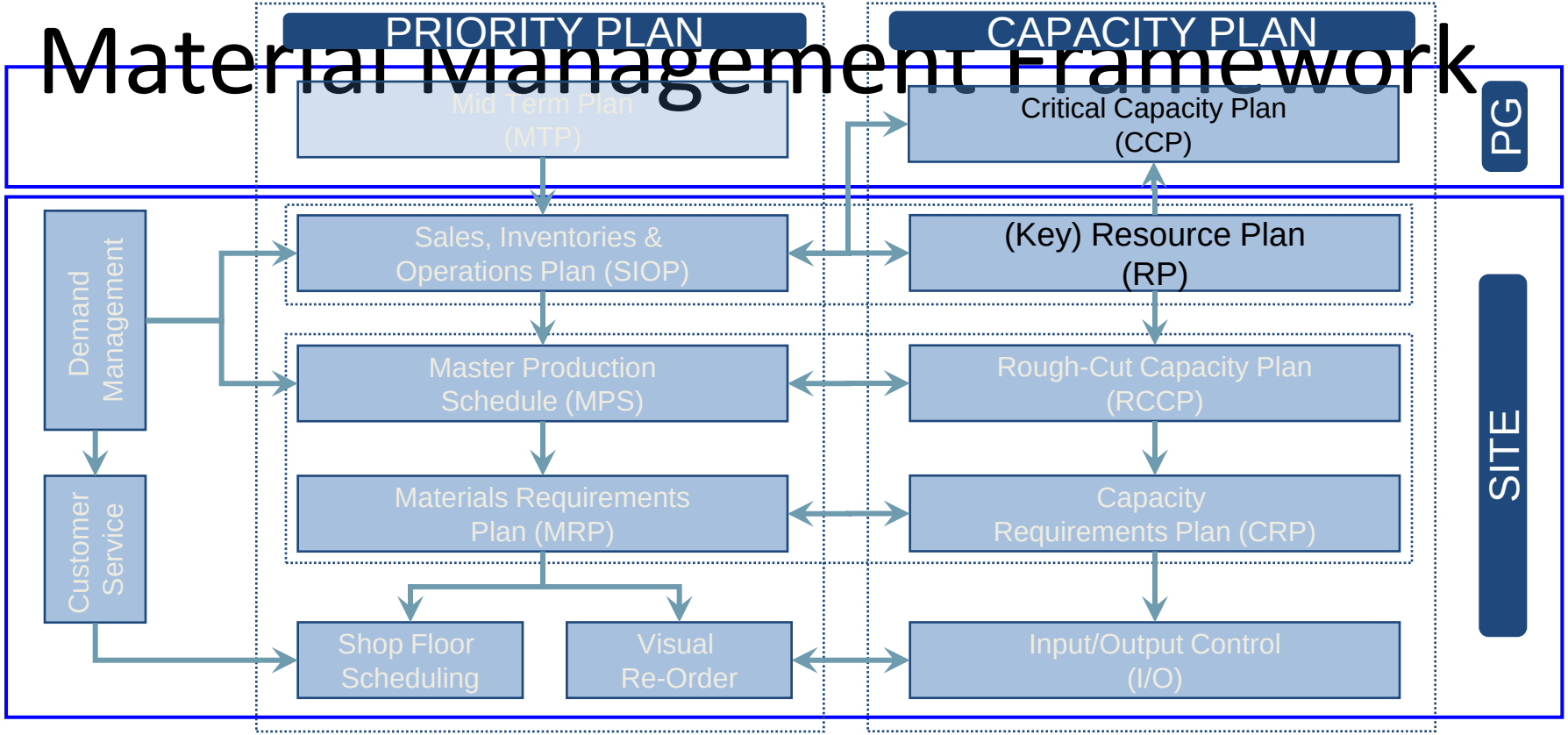
Valeo Supply Chain Management principle

- Producing according real customer demand (right quantity at the right time)

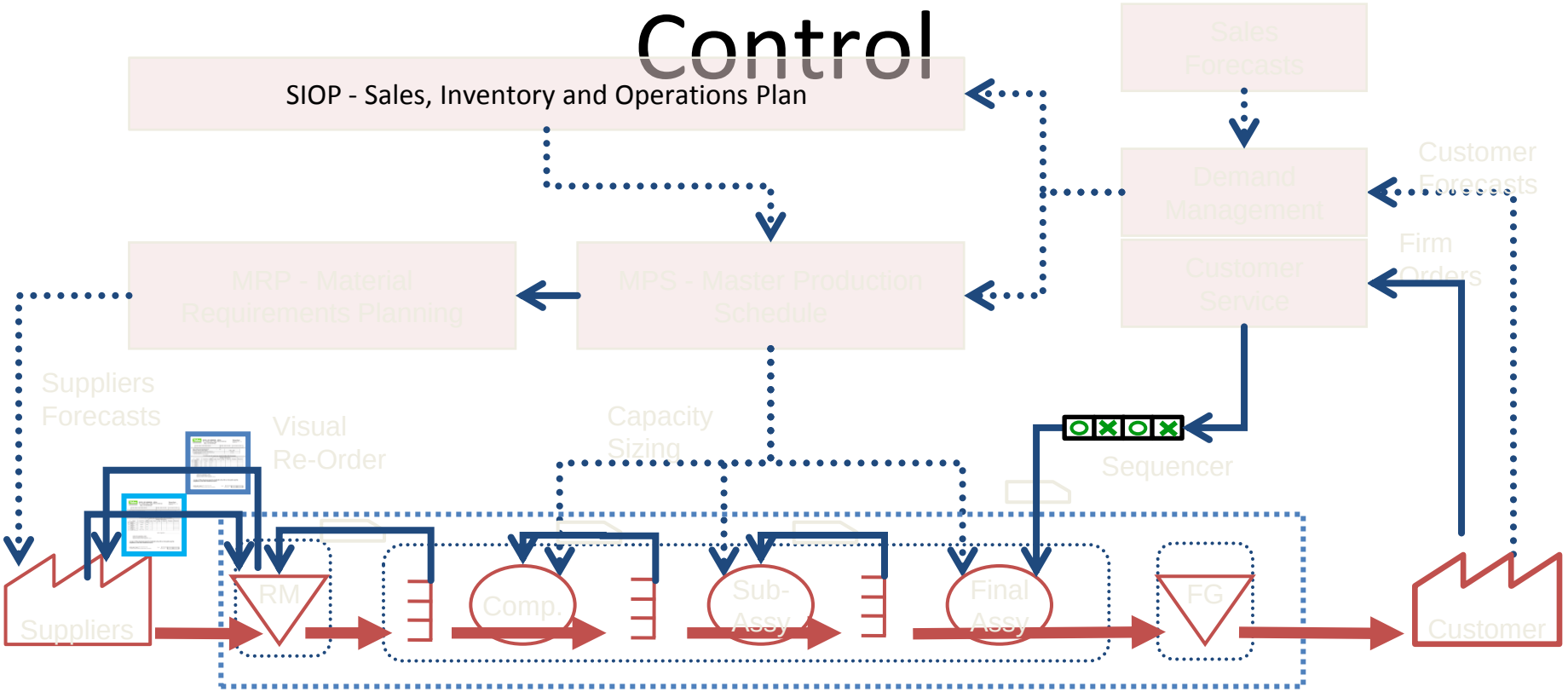


- Good and robust SIOP/MPS process with validated capacity
- Implemented pull flow principle with KANBAN loops

Valeo Production Control and Material Management Framework



Valeo Manufacturing Planning and Control



Sales, Inventories & Operations Plan

SIOP

- Why ? (Sales, Inventories and Operations Plan)
  - –Get a business dashboard for next 18 coming months (rolling),
  - –Detect capacity constraints (supplier, production, internal resources)
  - –Get a cross-functional team agreement,
  - –1 single set of figures, by product family.
- What ?
  - –Sales : Forecasts with Demand Management process
  - –Inventories : Inventory strategy,
  - –Operations : Capacity and quantity requirements (internal & ex
- How ?
  - –Identify issues and stakes by SIOP analyst,
  - –Compare current scenario with history,

Output of SIOP

internal view

SIOP SITE OVERVIEW

18 months horizon →

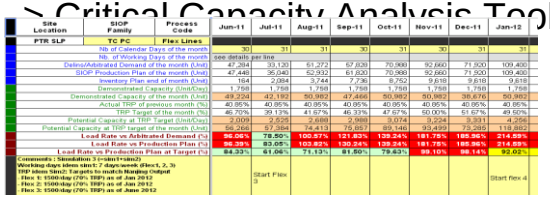
			Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11
	Workings days		20	20	23	22	19	21	22	20	21	21	21
Sales	**Forecast Sales M-3**	k€	**6.595**	**7.916**	**9.545**	**8.780**	**9.340**	**9.853**	**8.162**	**7.385**	**10.498**	**10.028**	**9.634**
	Forecast Sales M-2	k€	**7.663**	**8.234**	**9.919**	**9.253**	**9.311**	**9.896**	**8.549**	**7.893**	**10.952**	**9.910**	**9.732**
	Forecast Sales M-1	k€	**7.857**	**8.432**	**9.872**	**9.914**	**9.311**	**9.896**	**8.102**	**8.083**	**10.134**	**9.840**	**9.714**
	Budget sales	k€	**7.415**	**7.659**	**8.490**	**7.694**	**7.284**	**8.532**	**6.965**	**5.359**	**8.559**	**7.806**	**7.501**
	Actual Sales	k€	**7.970**	**8.311**	**10.126**	**9.991**	**9.334**	**9.314**	**8.027**	**7.747**	**10.514**	**9.967**	**9.856**
	Demand Plan Accuracy M-3	%	*121%*	**105%**	**102%**	**108%**	**100%**	**94%**	**94%**	**98%**	**96%**	**101%**	**101%**
	Actual Sales / Forecast	%	*101%*	*99%*	*103%*	*101%*	*100%*	*94%*	*99%*	*96%*	*104%*	*101%*	*101%*
	Actual Sales / Budget	%	*107%*	*109%*	*119%*	*130%*	*128%*	*109%*	*115%*	*145%*	*123%*	*128%*	*131%*
Production	**Forecast M-1production**	pcs	**891.955**	**1.164.659**	**1.124.697**	**983.086**	**687.511**	**726.617**	**602.005**	**519.113**	**698.468**	**703.888**	**590.005**
	Budget production	pcs	**873.577**	**874.034**	**967.525**	**899.491**	**872.683**	**990.584**	**831.011**	**754.358**	**981.778**	**909.803**	**897.680**
	Actual production	pcs	**969.109**	**1.390.335**	**1.231.084**	**1.183.599**	**1.095.484**	**860.570**	**943.203**	**1.057.294**	**1.190.952**	**1.056.786**	**1.034.576**
	Actual production / Forecast	%	*109%*	*119%*	*109%*	*120%*	*159%*	*118%*	*157%*	*204%*	*171%*	*150%*	*175%*
	Actual Production / Budget	%	*111%*	*159%*	*127%*	*132%*	*126%*	*87%*	*114%*	*140%*	*121%*	*116%*	*115%*
Inventory	**Forecast M-1 Inventory**	k€	**3.610**	**3.506**	**3.443**	**3.704**	**3.960**	**3.888**	**4.460**	**3.661**	**3.418**	**3.764**	**3.755**
	Budget Inventory	k€	**3.102**	**3.037**	**2.792**	**3.367**	**3.355**	**2.894**	**4.474**	**3.827**	**3.508**	**3.739**	**3.711**
	Actual Inventory	k€	**3.766**	**3.844**	**3.888**	**3.825**	**3.916**	**3.615**	**3.964**	**4.189**	**3.793**	**3.678**	**3.456**
	Actual Inventory / Forecast	%	*104%*	*110%*	*113%*	*103%*	*99%*	*93%*	*89%*	*114%*	*111%*	*98%*	*92%*
	Actual Inventory / Budget	%	*121%*	*127%*	*139%*	*114%*	*117%*	*125%*	*89%*	*109%*	*108%*	*98%*	*93%*
Direct labor	**Forecast M-1 Direct labor**	People	**105**	**109**	**114**	**124**	**119**	**110**	**116**	**121**	**120**	**115**	**109**
	Budget Direct labor	People	**96**	**95**	**93**	**97**	**95**	**101**	**108**	**102**	**110**	**105**	**100**
	Actual Direct labor	People	**109**	**109**	**117**	**119**	**122**	**120**	**118**	**120**	**126**	**121**	**119**
	Actual Direct labor / Forecast	%	*104%*	*100%*	*103%*	*96%*	*103%*	*109%*	*102%*	*99%*	*105%*	*105%*	*109%*
	Actual Direct labor / Budget	%	*114%*	*115%*	*126%*	*123%*	*128%*	*119%*	*109%*	*118%*	*115%*	*115%*	*119%*

Procurement Plan

-> Supplier Capacity Analysis

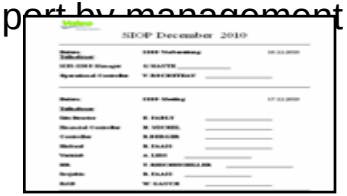
Production Plan

-> Critical Capacity Analysis Tool

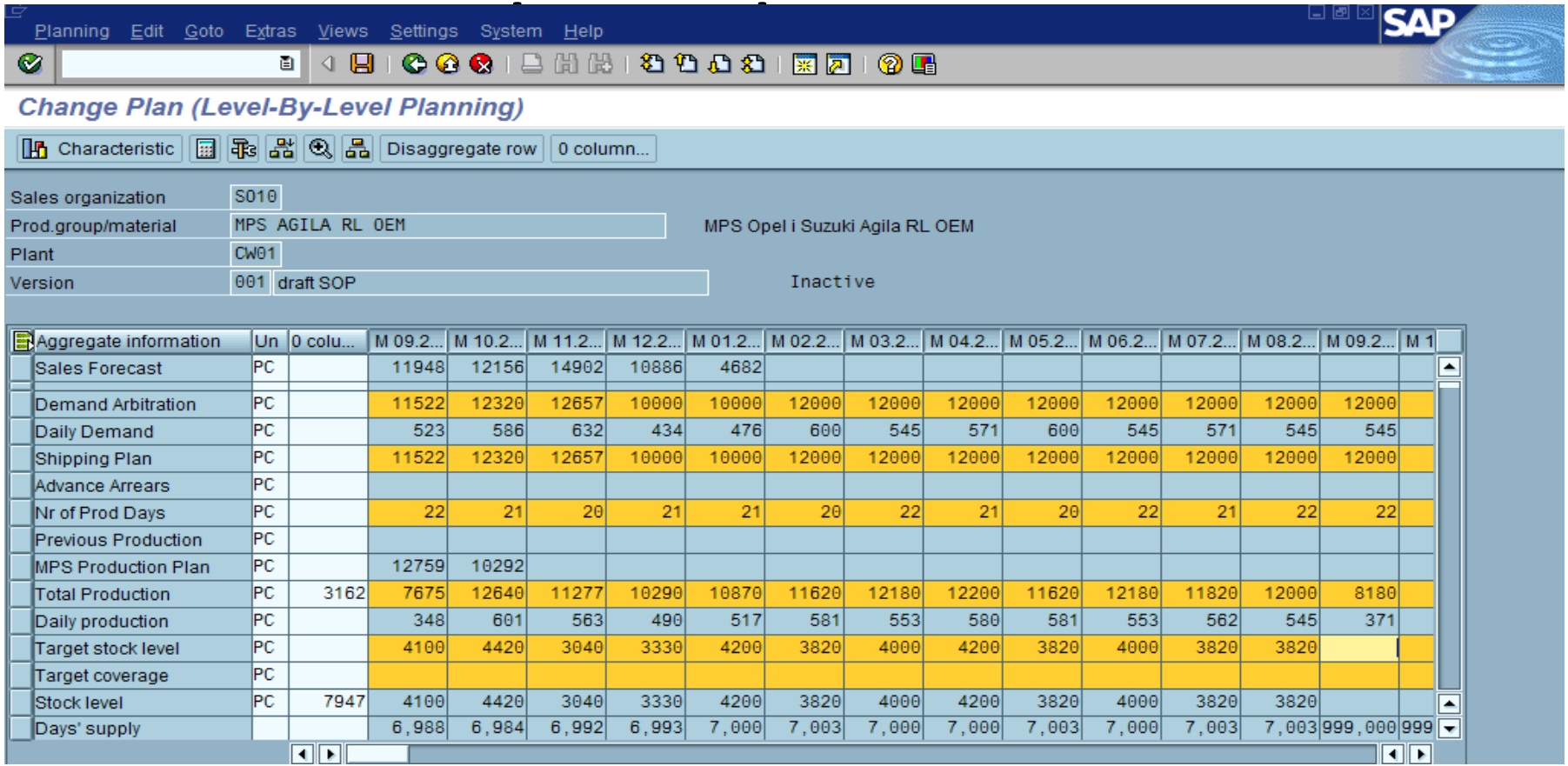


Action plan

-> support by management dessision



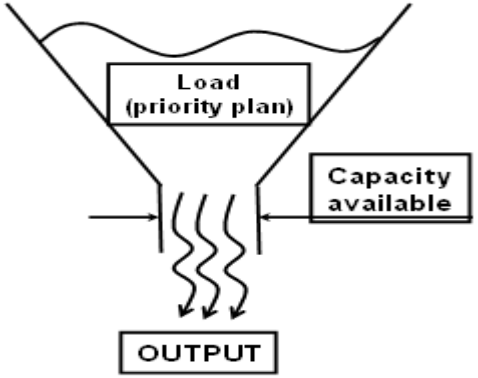
Example of SIOP Flexible Plan



Aggregate information	Un	0 colu...	M 09.2...	M 10.2...	M 11.2...	M 12.2...	M 01.2...	M 02.2...	M 03.2...	M 04.2...	M 05.2...	M 06.2...	M 07.2...	M 08.2...	M 09.2...	M 1
Sales Forecast	PC		11948	12156	14902	10886	4682									
Demand Arbitration	PC		11522	12320	12657	10000	10000	12000	12000	12000	12000	12000	12000	12000	12000	
Daily Demand	PC		523	586	632	434	476	600	545	571	600	545	571	545	545	
Shipping Plan	PC		11522	12320	12657	10000	10000	12000	12000	12000	12000	12000	12000	12000	12000	
Advance Arrears	PC															
Nr of Prod Days	PC		22	21	20	21	21	20	22	21	20	22	21	22	22	
Previous Production	PC															
MPS Production Plan	PC		12759	10292												
Total Production	PC	3162	7675	12640	11277	10290	10870	11620	12180	12200	11620	12180	11820	12000	8180	
Daily production	PC		348	601	563	490	517	581	553	580	581	553	562	545	371	
Target stock level	PC		4100	4420	3040	3330	4200	3820	4000	4200	3820	4000	3820	3820		
Target coverage	PC															
Stock level	PC	7947	4100	4420	3040	3330	4200	3820	4000	4200	3820	4000	3820	3820		
Days' supply			6,988	6,984	6,992	6,993	7,000	7,003	7,000	7,000	7,003	7,000	7,003	7,003	999,000	999

A SIOP is validated if the plan is achievable

- Capacity Analysis is a key process:
  - Without the resources to achieve the priority plan, the plan will be unworkable
  - Capacity planning involves calculating the capacity needed to produce in the future and finding ways of making that capacity available



- Demonstrated Capacity:
  - ➔ The amount of work (output) that can be done in a specified time period. This is the available capacity measured from historical data.
- Load (Capacity required by the Priority Plan):
  - ➔ The amount of released and planned work assigned to a facility for a particular time period. It is the amount of work within the facility.

Critical Capacity Analysis

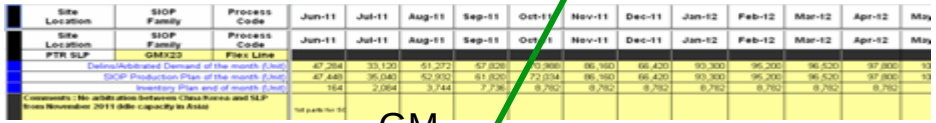
Tool

- Why ?
  - –Detect capacity constraints (supplier, production, internal resources),
  - –Get a realistic capacity picture for next 18 coming month (rolling) to meet customer demand,
  - –Get a cross-functional team agreement,
- What ?
  - –Internal capacity : Resources (people & machine),
  - –External capacity : Capacity of suppliers.
- How ?
  - –Critical machine selected (SIOP only family view)
  - –Analyze various scenarios and check capacity situation with real customer data.

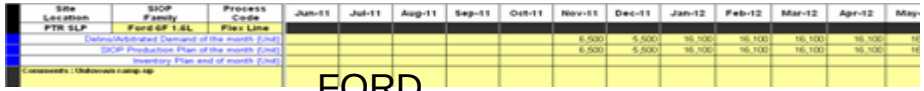
Capacity Analysis

Critical Capacity Tool (focus on critical production lines)

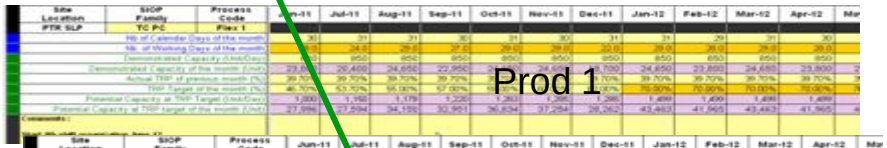
Site Location	SIOP Family	Process Code	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12
PTR SLP	TC PC	Flex Lines										
Nb of Calendar Days of the month			30	31	31	30	31	30	31	31	29	31
Nb. of Working Days of the month			see details per line									
Delins/Arbitrated Demand of the month (Unit)			47,284	33,120	51,272	57,828	70,988	92,660	71,920	109,400	111,300	112,620
SIOP Production Plan of the month (Unit)			47,448	35,040	52,932	61,820	70,988	92,660	71,920	109,400	111,300	112,620
Inventory Plan end of month (Unit)			164	2,084	3,744	7,736	8,752	9,618	9,618	9,618	9,618	9,618
Demonstrated Capacity (Unit/Day)			1,758	1,758	1,758	1,758	1,758	1,758	1,758	1,758	1,758	1,758
Demonstrated Capacity of the month (Unit)			49,224	42,192	50,982	47,466	50,982	50,982	38,676	50,982	49,224	50,982
Actual TRP of previous month (%)			40.85%	40.85%	40.85%	40.85%	40.85%	40.85%	40.85%	40.85%	40.85%	40.85%
TRP Target of the month (%)			46.70%	39.13%	41.67%	46.33%	47.67%	50.00%	51.67%	49.50%	50.75%	53.25%
Potential Capacity at TRP Target (Unit/Day)			2,009	2,525	2,688	2,988	3,074	3,224	3,331	4,256	4,364	4,580
Potential Capacity at TRP target of the month (Unit)			56,266	57,384	74,413	75,857	89,146	93,499	73,285	118,882	118,298	125,794
Load Rate vs Arbitrated Demand (%)			96.06%	78.50%	100.57%	121.83%	139.24%	81.75%	185.96%	214.59%	226.11%	220.90%
Load Rate vs Production Plan (%)			96.39%	83.05%	103.82%	130.24%	139.24%	81.75%	185.96%	214.59%	226.11%	220.90%
Load Rate vs Production Plan at Target (%)			84.33%	61.06%	71.13%	81.50%	79.63%	98.10%	98.14%	92.02%	94.08%	89.53%
Comments : Simulation 3 (=sim1+sim2) Working days idem sim1: 7 days/week (Flex1, 2, 3) TRP idem Sim2: Targets to match Nanjing Output - Flex 1: 1500/day (70% TRP) as of Jan 2012 - Flex 2: 1500/day (70% TRP) as of Jan 2012 - Flex 3: 1500/day (70% TRP) as of June 2012				Start Flex 3						Start flex 4		



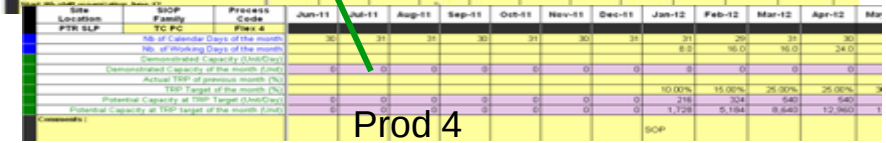
GM



FORD



Prod 1



Prod 4

Master Production Schedule

MPS

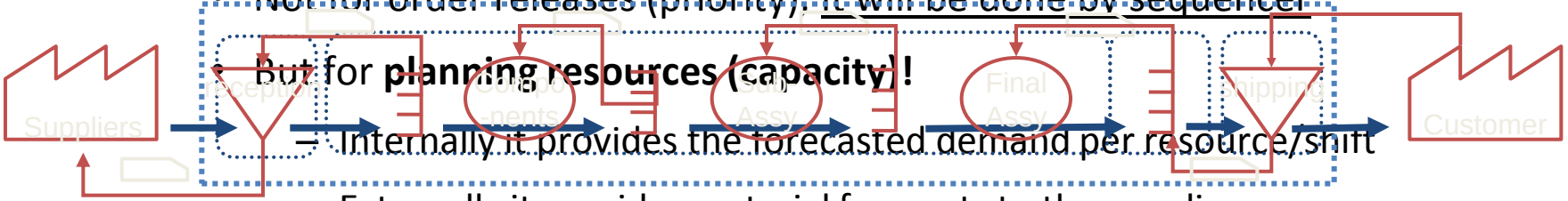
(*Master Production Schedule)*

- Why ?
  - –Get a realistic production schedule for next 15 coming weeks (rolling) to meet customer demand
  - –Picture by machine/process/line,
  - –Get a cross-functional team agreement,
- What ?
  - –Internal capacity : Resources (people & machine),
  - –External capacity : Capacity of suppliers.
- How ?
  - –Identify issues and actions by MPS analyst (SCM department),
  - –Compare current scenario with history,

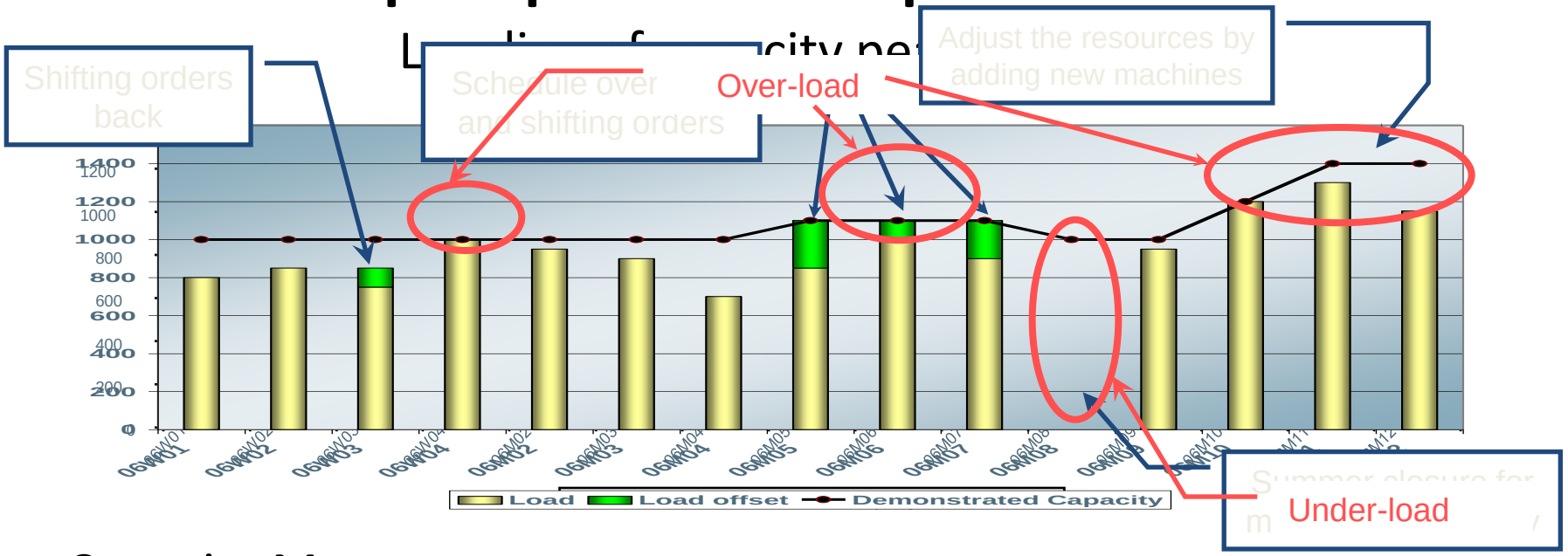
MPS

(*Master Production Schedule)*

- In a “pull” system, what is the role of the MPS?
  - MPS contract is a commitment between SC and production.
  - When pulling, order release decisions are not made based upon the MPS, but based upon real consumption (customer firm orders)
  - Why would we need an MPS?
    - Not for order releases (priority), it will be done by sequencer
    - But for **planning resources (capacity)!**
      - Internally it provides the forecasted demand per resource/shift
      - Externally it provides material forecasts to the suppliers

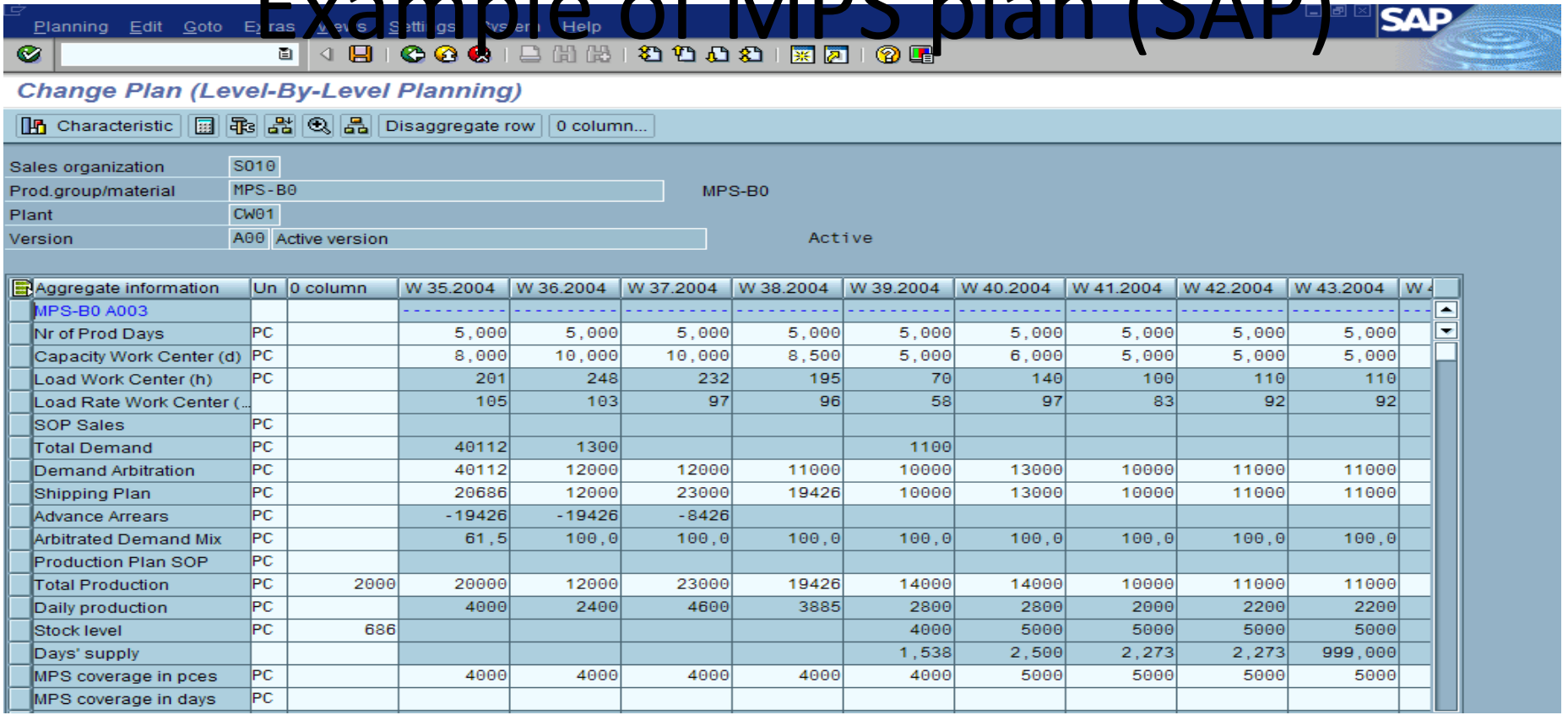


MPS preparation process



- Capacity Management :
  - –Short and mid-term : labor resources, overtime, WE shifts, opening days
  - –Long-term : new equipments, transfers, investments, …
  - –How to make the plan work ? → leveling, adaptation !
  - –Target: stable production and material flow, no short term hire

Example of MPS plan (SAP)



Aggregate information	Un	0 column	W 35.2004	W 36.2004	W 37.2004	W 38.2004	W 39.2004	W 40.2004	W 41.2004	W 42.2004	W 43.2004	W
MPS-B0 A003												
Nr of Prod Days	PC		5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	
Capacity Work Center (d)	PC		8,000	10,000	10,000	8,500	5,000	6,000	5,000	5,000	5,000	
Load Work Center (h)	PC		201	248	232	195	70	140	100	110	110	
Load Rate Work Center (...			105	103	97	96	58	97	83	92	92	
SOP Sales	PC											
Total Demand	PC		40112	1300			1100					
Demand Arbitration	PC		40112	12000	12000	11000	10000	13000	10000	11000	11000	
Shipping Plan	PC		20686	12000	23000	19426	10000	13000	10000	11000	11000	
Advance Arrears	PC		-19426	-19426	-8426							
Arbitrated Demand Mix	PC		61,5	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	
Production Plan SOP	PC											
Total Production	PC	2000	20000	12000	23000	19426	14000	14000	10000	11000	11000	
Daily production	PC		4000	2400	4600	3885	2800	2800	2000	2200	2200	
Stock level	PC	686					4000	5000	5000	5000	5000	
Days' supply							1,538	2,500	2,273	2,273	999,000	
MPS coverage in pces	PC		4000	4000	4000	4000	4000	5000	5000	5000	5000	
MPS coverage in days	PC											

Material Requirement Plan

Material Requirement Plan

- The Material Requirements Plan (MRP) is a priority plan used to plan “dependent” demand based upon the MPS

  – **Independent** demand: demand defined as being not related to the demand of any other product (demand for MPS items). Independent demand must be forecasted.

  Note: when you deliver intermediate parts to a customer, these also need to be independently forecast!

  – **Dependent** demand: demand directly related to the demand

Material Requirements Planning (Standard)

1- Net Requirements Planning and Normal Parameters

Detailed Information	Un	0 column	W 23.2004	W 24.2004	W 25.2004	W 26.2004	W 27.2004	...	W 37.2004
Independent Requirements	PC	20	690	1200	1120	1090	1000		
Planned Receipts	PC		700	0	0	0	0		
Projected Available Stock	PC	300	310	-890	-2010	-3100	-4100		
Safety Stock	PC		250	250	250	250	250		
Available Stock	PC		60	-1140	-2260	-3350	-4350		
Shortage Qty	PC		0	1140	2260	3350	4350		
Requirement (Intermediate)	PC		0	1140	1120	1090	1000		
Scrap			0	1267	1244	1211	1111		
Lot Size			0	1300	1300	1300	1200		
Lead Time		0	1300	1300	1300	1200	...		
Requirement	PC	0	1300	1300	1300	1200	...		
Planned Order	PC	0	1300	1300	1300	1200			

Safety Stock	250
Assy Scrap	10%
Lot Size	100
In House LT	1

Netting

Qty Adjustments

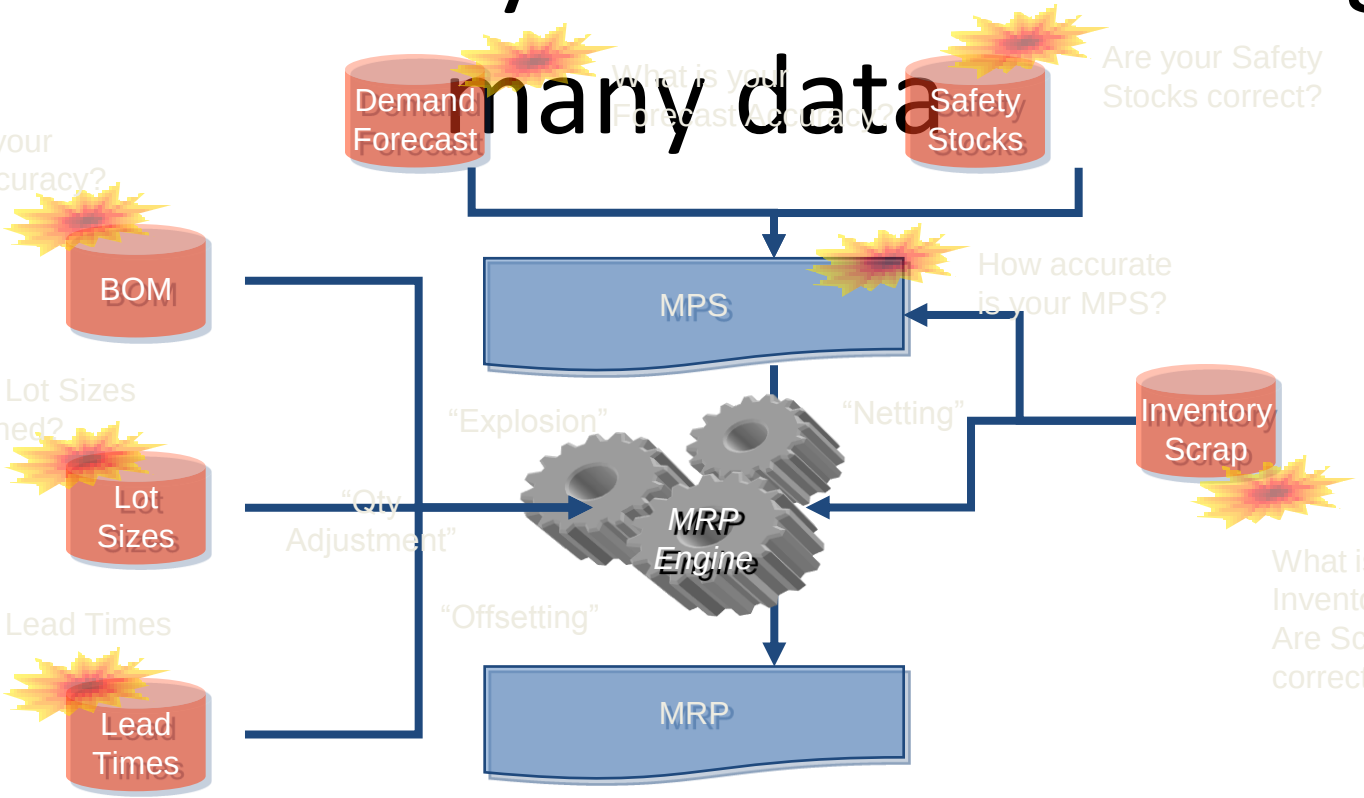
Offsetting

Explosion

Detailed Information	Un	0 column	W 23.2004	W 24.2004	W 25.2004	W 26.2004	W 27.2004	...	W 37.2004
Dependent Requirements	PC	0	2600	2600	2600	2400	...		
Planned Receipts	PC		2500	0	0	0	0		
Projected Available Stock	PC	1500	1400	-1200	-3800	-6200	...		
Safety Stock	PC		1500	1500	1500	1500	1500		
Available Stock	PC		-100	-2700	-5300	-7700	...		
Shortage Qty	PC		100	2700	5300	7700	...		
Requirement (Intermediate)	PC		100	2600	2600	2400	...		
Scrap			105	2737	2737	2526	...		
Lot Size			500	3000	3000	3000	...		
Lead Time		500	3000	3000	3000	...	...		
Requirement	PC	500	3000	3000	3000	...	...		
Planned Order	PC	500	3000	3000	3000	...	...		

Safety Stock	1500
Assy Scrap	5%
Lot Size	500
Delivery Time	1
Quantity Per	2

MRP is only a calculator using many data



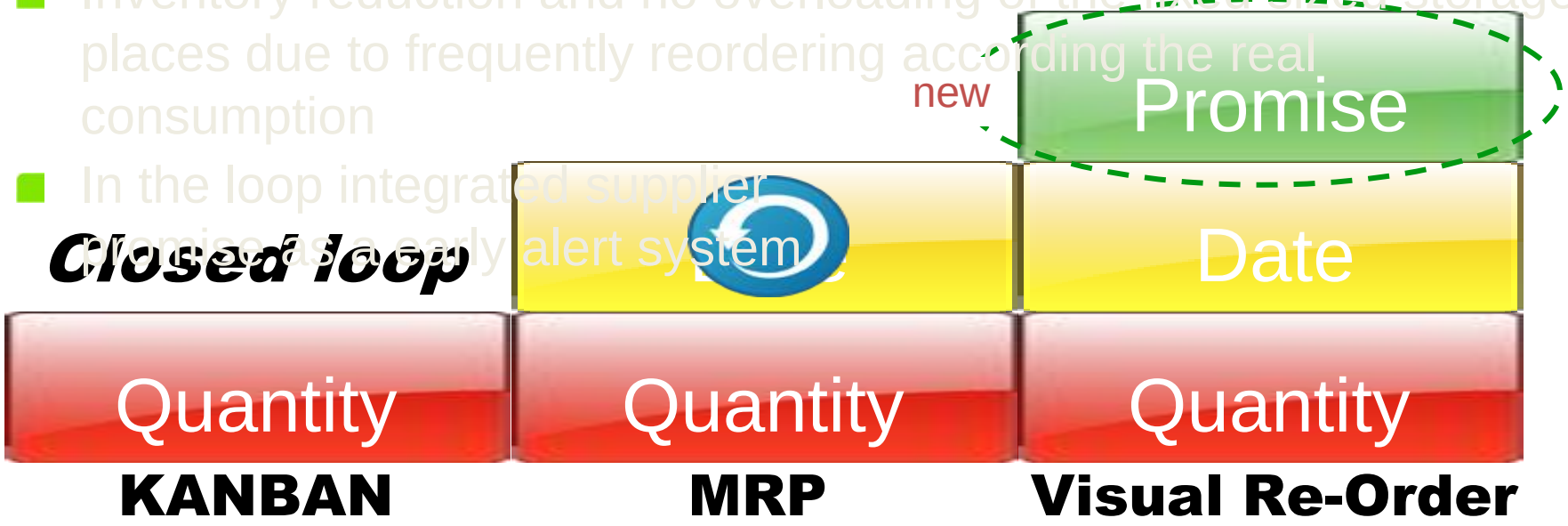
How accurate is your MRP…?

Visual Re-Order

Visual Re Order (VRO)

Benefits

- “Visual-System” with real inventory for reorder planning
- High stock accuracy due to regularly counting
- Quick changes in case of demand variations possible
- Inventory reduction and no overloading of the fixed sized storage places due to frequently reordering according the real consumption
- In the loop integrated supplier
- Promise as a early alert system



Visual Re Order (VRO)

Overview of the loop

1 Pick up orders are prepared based upon a physical count

2 Pick up order are sent by fax to suppliers

3 Pick up orders are displayed on the board till the promises are received

4 Suppliers send back the promises on the second fax with blue paper

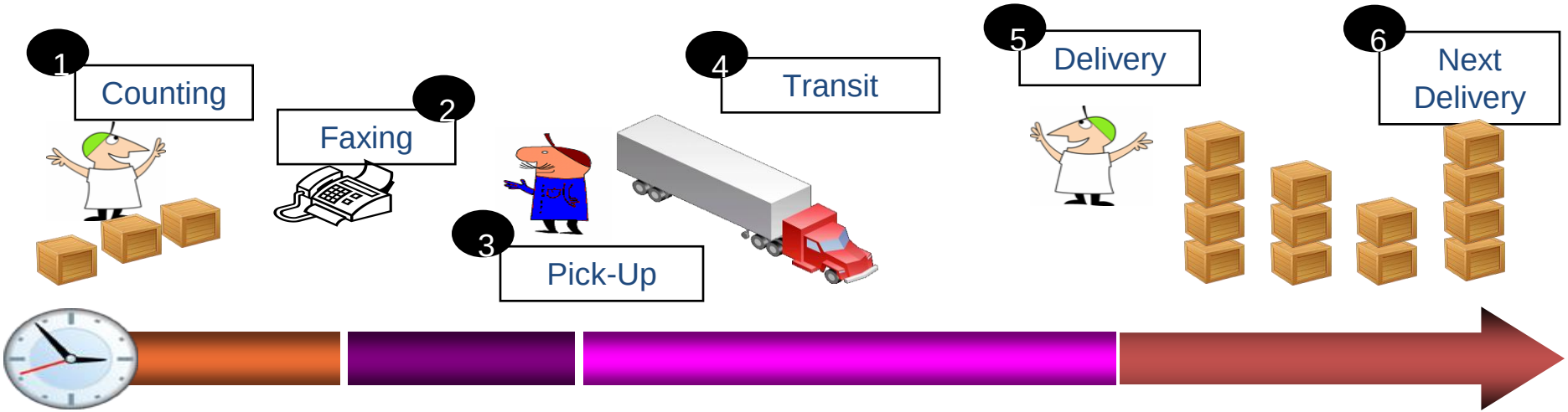
5 Pick up orders are then put together in the folders as in transit

6 Receiving match all the pick up orders together

Visual Re Order (VRO)

Loop calculation

Total Lead Time



VRO Loop = Daily Usage x Total Lead Time

June 12

ShenZhen VRO Routing

South China VRO

10 suppliers

East China VRO

ShenZhen ← East China

Milk Run

11 suppliers

12 Suppliers

3 city
ShangHai
SuZhou
NingBo

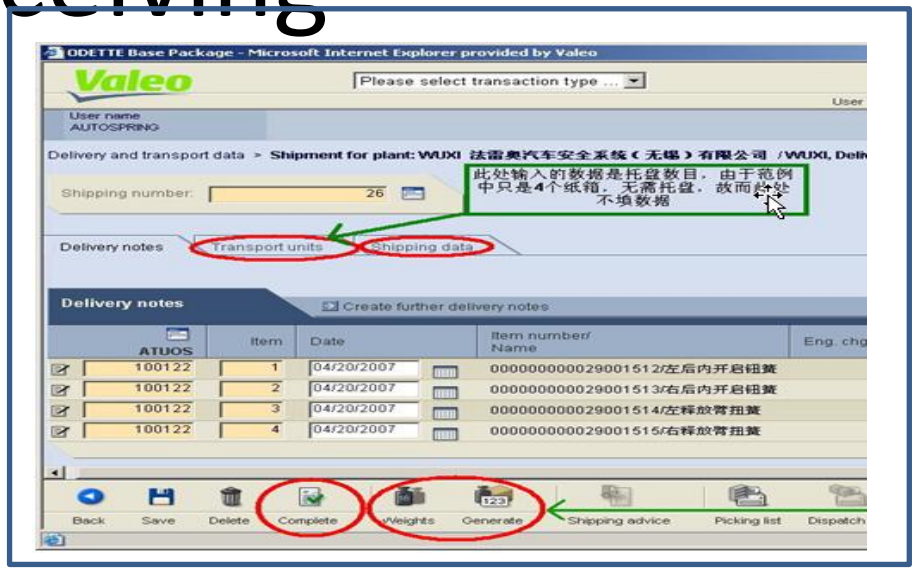
Login screen

Function

- Electronic order transmission.
- ASN & Rich receiving.
- Modify/Inquiry delivery inform.

Rich Receiving

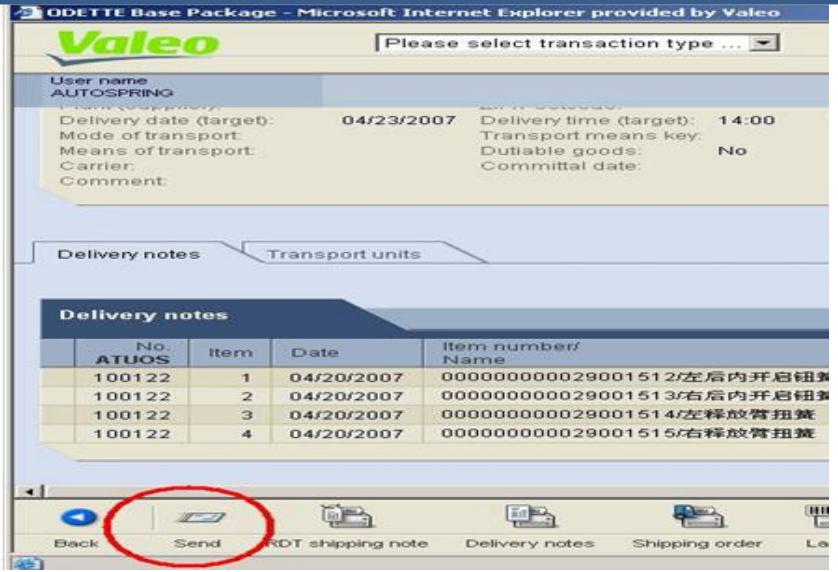
1.Create package by Supplier



2.Create shipping data by Supplier

Web-EDI

Order transmission



3.Send ASN by supplier

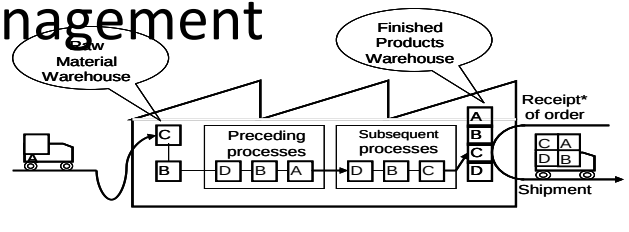
4.Valeo receiving by Scanning barcode.

Shop Floor Scheduling

Just In Time

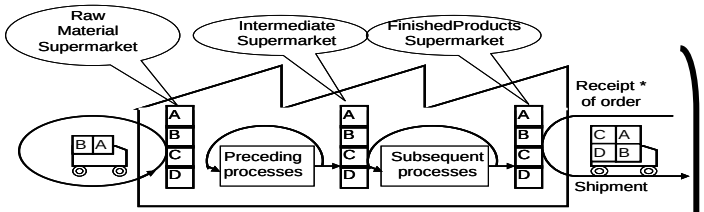
Physical flow management

Make to Stock

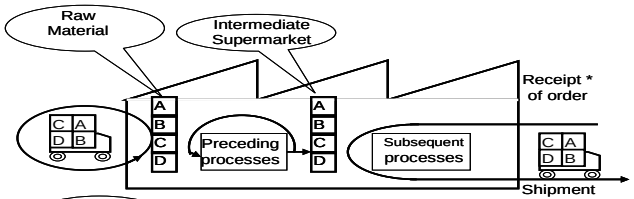


Push flow

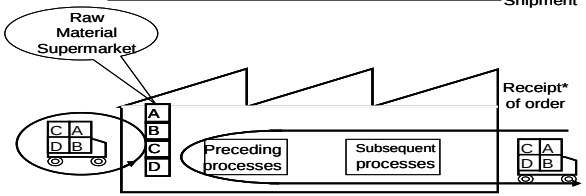
Replenishement



Assemble to Order



Build To Order



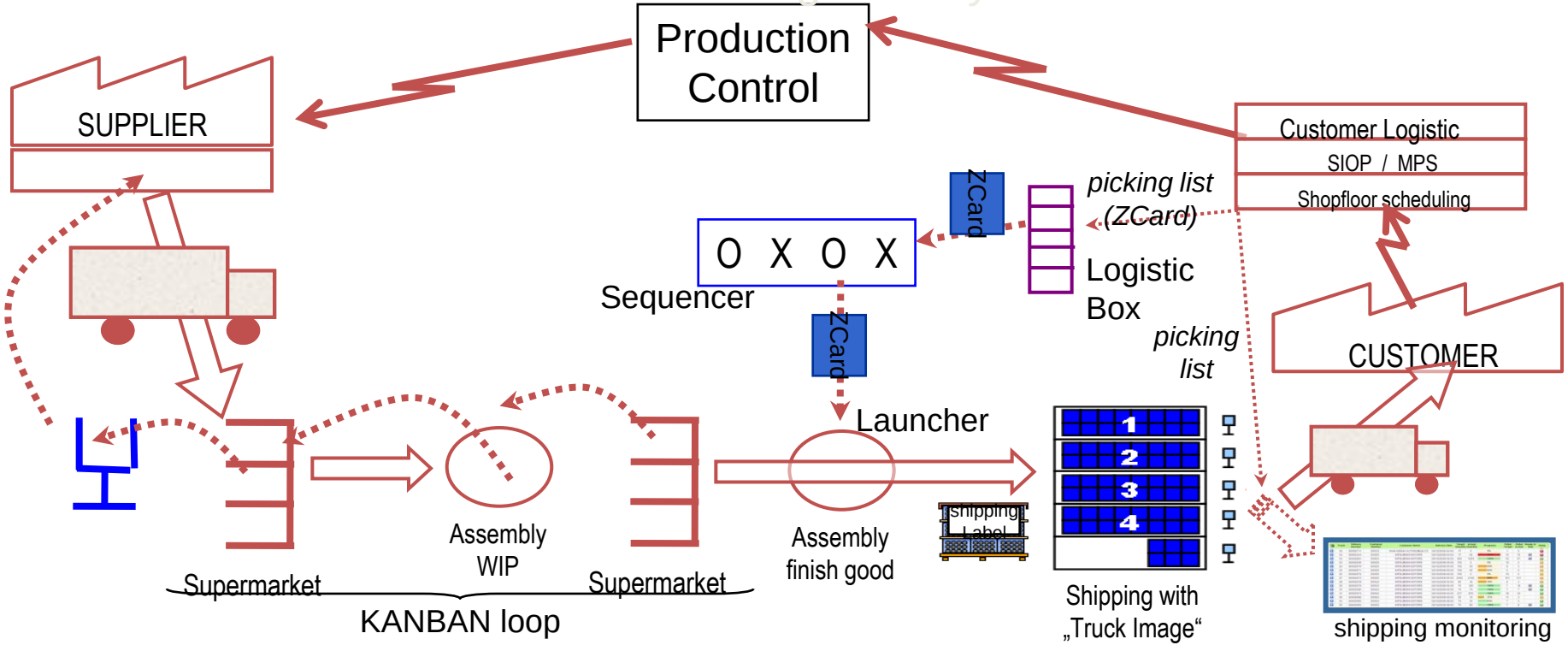
Pull flow

Valeo

Shopfloor scheduling

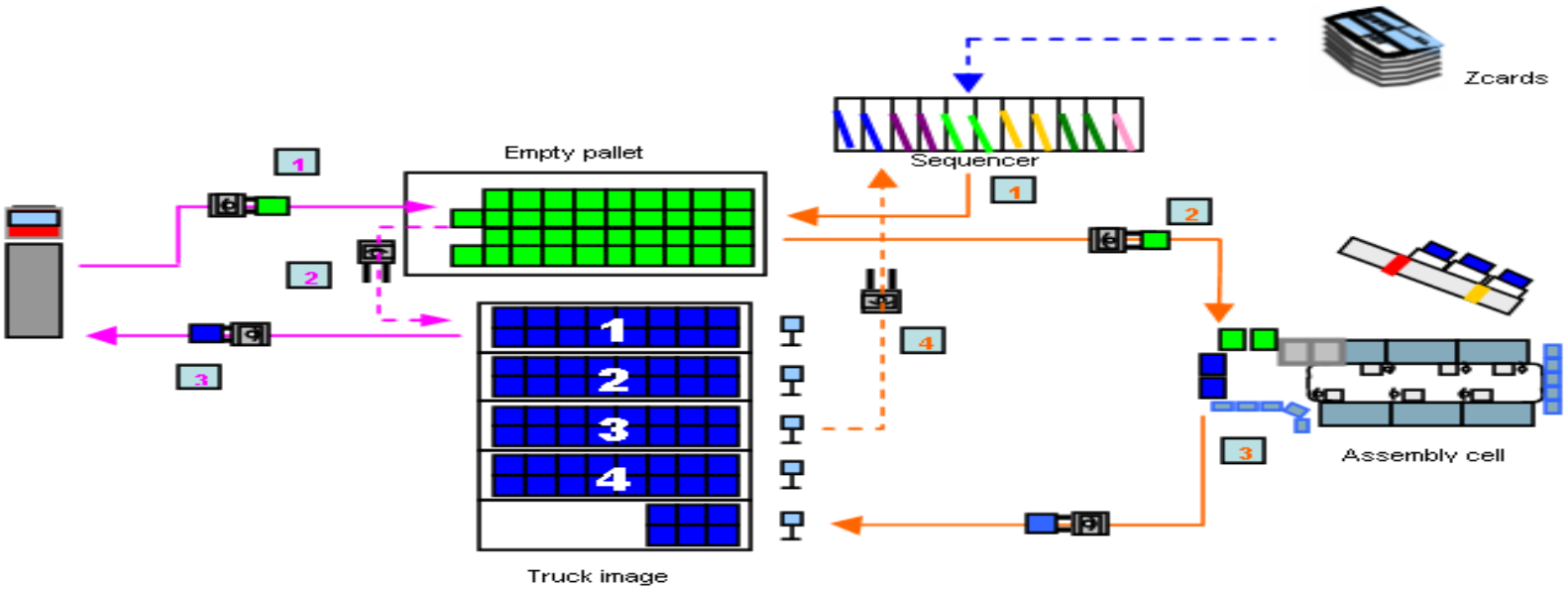
Built-To-Truck (BTT / 3b) = Assemble to Order+Truck Image

- Flow: Assemble to Order with minimum stock at shipping
- Focus: Production orders according delivery note linked to a truck



Build To Truck over view

1 ZCARD = 1 container (UM or UMS) or 1 box (UC)



Internal Pull-Flow

KANBAN preparing
--prepared by CIM
--unit is box

→

Put the KANBAN on each box
-done by operator

→

Production scan KANBAN which collected by line feeder
-Production shift leader

→

Generate WIP production plan

→

Feeding to supermarket

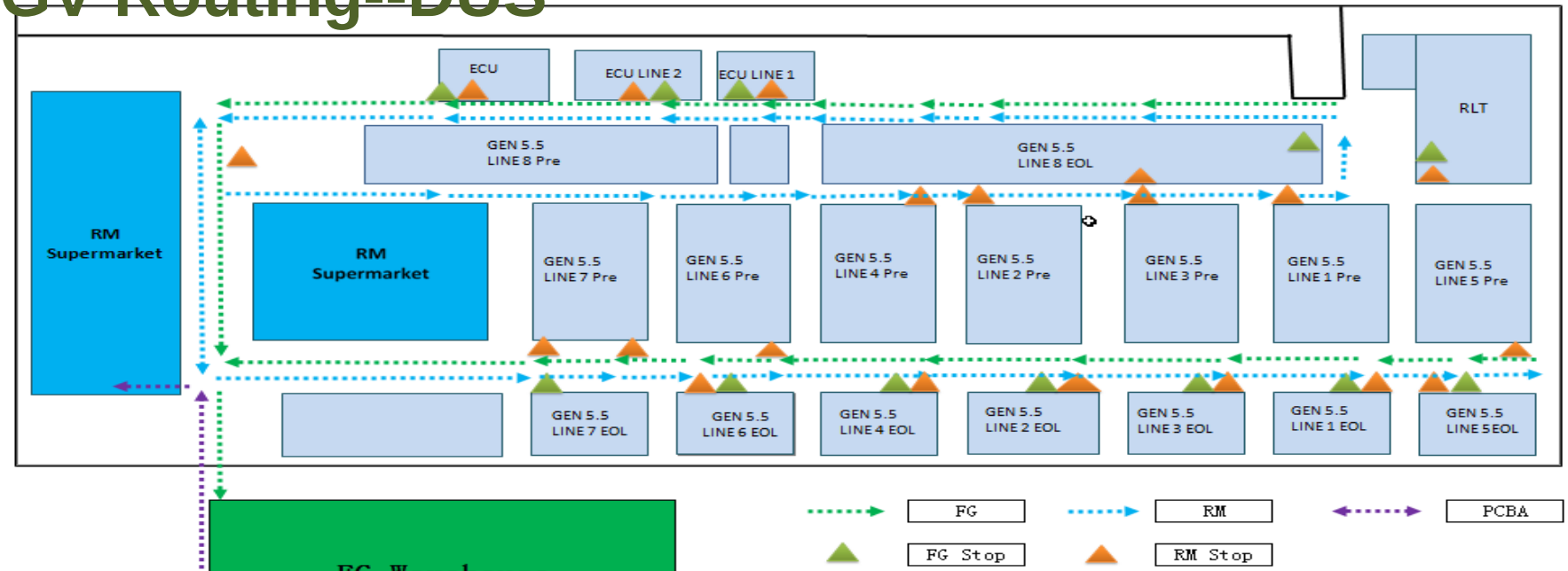
机械2课白班生产计划

第1页

任务编号	生产日期	任务启示时间	预计完成时间	生产状态
0124	2015-09-18	2015-09-18 07:50:00	2015-09-18 19:50:00	等待生产

序号	零件号		看板数量	每看板标准数量	计划总数	优先级	生产状态
1	PN0778600040	1	8	1400	11200	Hight Runner	等待生产
2	PN07A2000161	1	6	400	2400	Hight Runner	等待生产
3	PN2243041010K	1	2	1800	3600	Hight Runner	等待生产
4	PN2312100020K	1	112	104	11648	Hight Runner	等待生产

AGV Routing--DUS



1.Covering 12 DUS production lines. Launch in Aug

2.RM/FG/PCBA are included.

3.Frequency:1 hour/time

Automotive technology, naturally