

Production Planning with Certainty using Opcenter APS

Presentation by:
Greg Way and Billy Weir



Solution
Partner
PLM

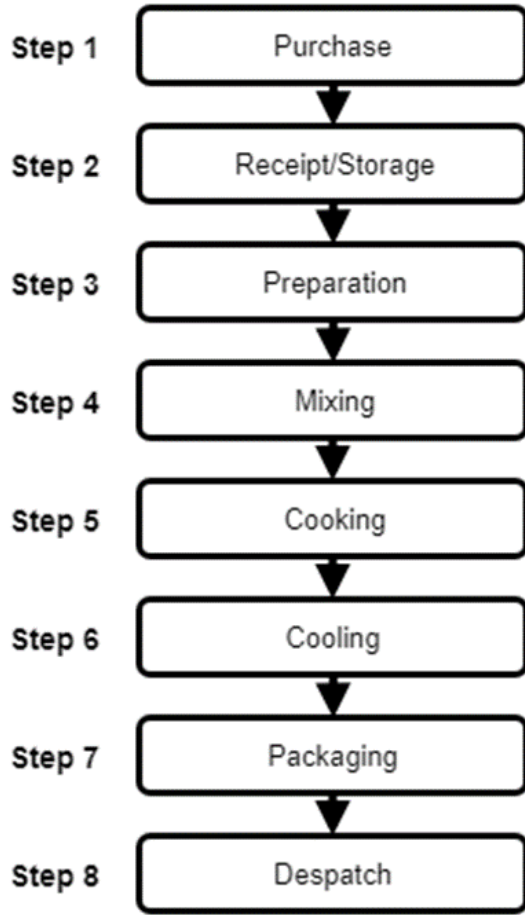
SIEMENS

Silver
Smart Expert
Channel



simulation solutions

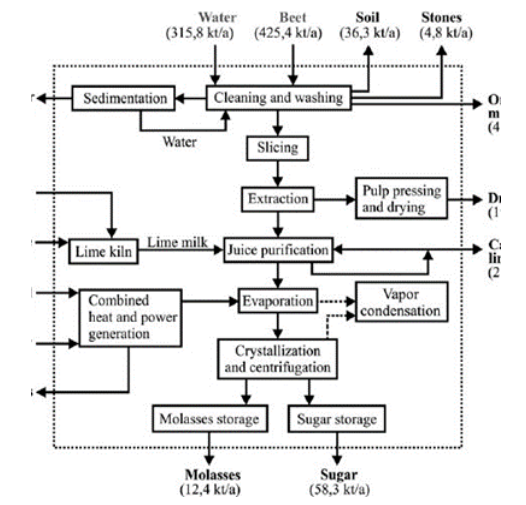
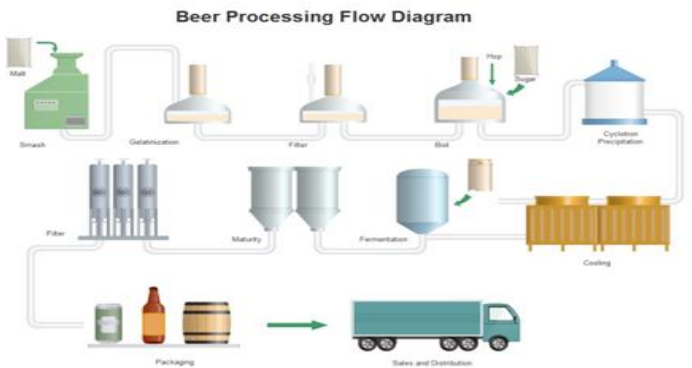
Traditional tools used for scheduling production lines



Weekly & Daily Planning_Crushers & Cones.smlm - Excel

26/12/2016 MONDAY				Available Manpower									
Sched. Start Date	Sched. End Date	Type	Position	WO	Description	Est. Man	Est. Hour	Est. M x H	Work Permits	Actual Man	Actual Hour	Actual M x H	STATU
30/12/2016	30/12/2016	Corrective Maintenance Planned	Priority 3 - To be Done Within a week	RH2BC15	2ND BELT FROM HD LIMESTONE RECLAMER	93416	Replace idlers roller and return roller sheared	2.0	6.0	12.0		0.0	
30/12/2016	30/12/2016	Corrective Maintenance Planned	Priority 3 - To be Done Within a week	RH2BC15	2ND BELT FROM HD LIMESTONE RECLAMER	93417	Replace HD drum bearing worn out	2.0	6.0	16.0		0.0	
30/12/2016	30/12/2016	Corrective Maintenance Planned	Priority 3 - To be Done Within a week	RH1BC15	2ND BELT FROM HD LIMESTONE RECLAMER	93418	Re-tight gear box cooling fan loose	2.0	4.0	8.0		0.0	
TOTAL PLANNED										36.0		0.0	

Selected WOs are copied to selected Week (52)



Batch Determination CO: Select Batches

Copy Classification... Strategy analysis Log... Availability

Mat.ordered: 3707 SEMI-FINISHED TABLETS
 Plant: 0007
 Sales Document: 0

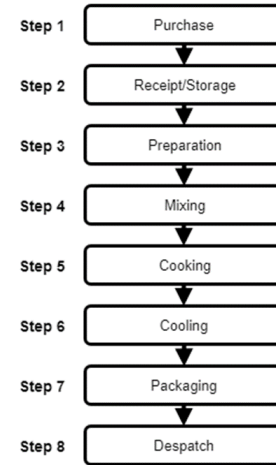
Material: 3691 ACTIVE PHARMACEUTICAL INGREDIENT
 Plant: 0007 Werk Hamburg
 Reqmt Date: 26.08.2010 Strategy info...
 Reqmt Qty: 251.000 AI
 Open quantity: 0.000 AI Selection criteria...

Batch	Split quantity	Available quantity	SLoc	S	Characteristic sort.
0000000986		400.000	0001		
0000000990	147.000	147.000	0001		
0000000988	104.000	143.000	0001		
0000000991		138.000	0001		
0000000989		98.000	0001		

Traditional tools used for scheduling production lines



Finger in the air (it feels right to me)



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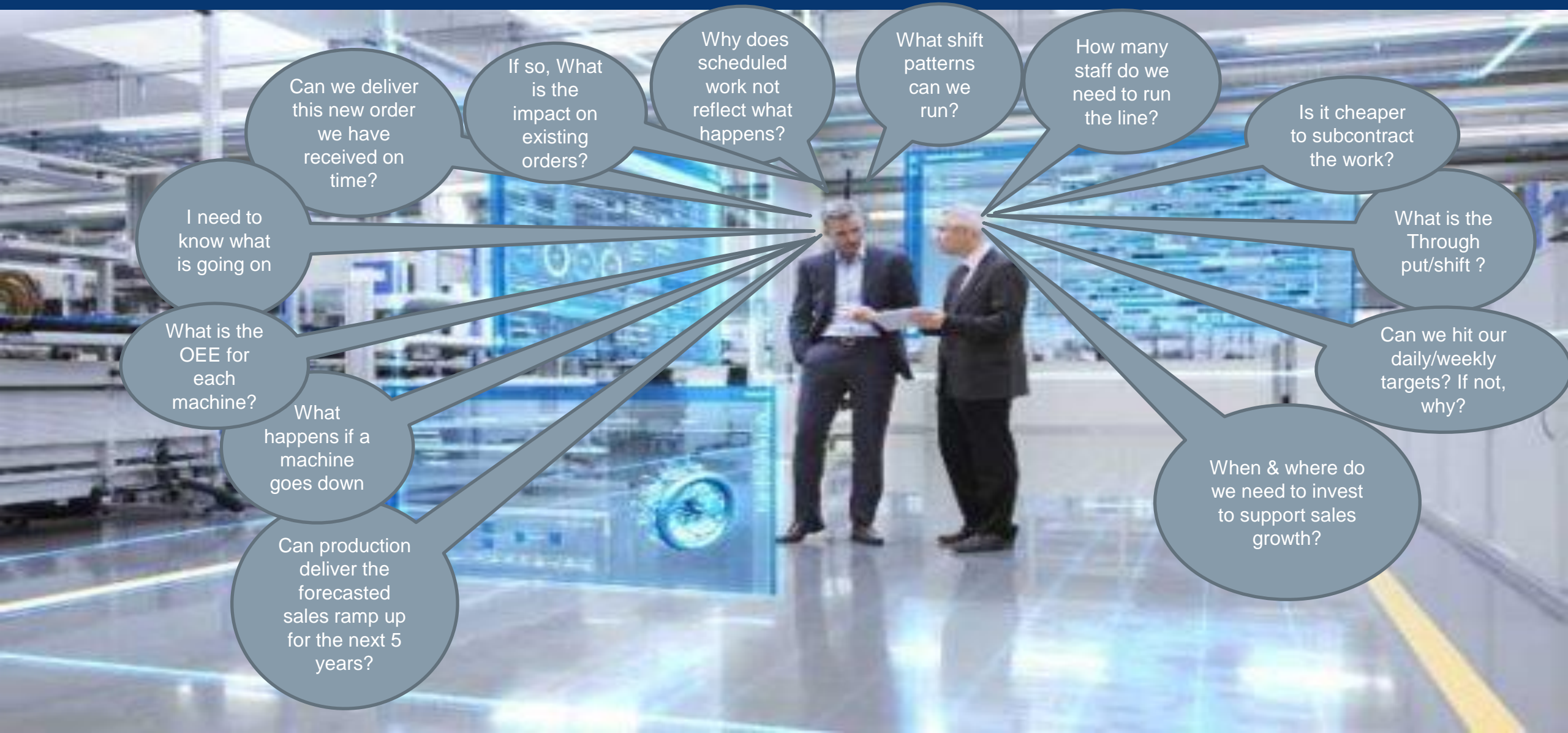
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And let's hope it's right



Tough questions – Tough decisions.....



Can we deliver this new order we have received on time?

If so, What is the impact on existing orders?

Why does scheduled work not reflect what happens?

What shift patterns can we run?

How many staff do we need to run the line?

Is it cheaper to subcontract the work?

What is the Through put/shift ?

Can we hit our daily/weekly targets? If not, why?

When & where do we need to invest to support sales growth?

I need to know what is going on

What is the OEE for each machine?

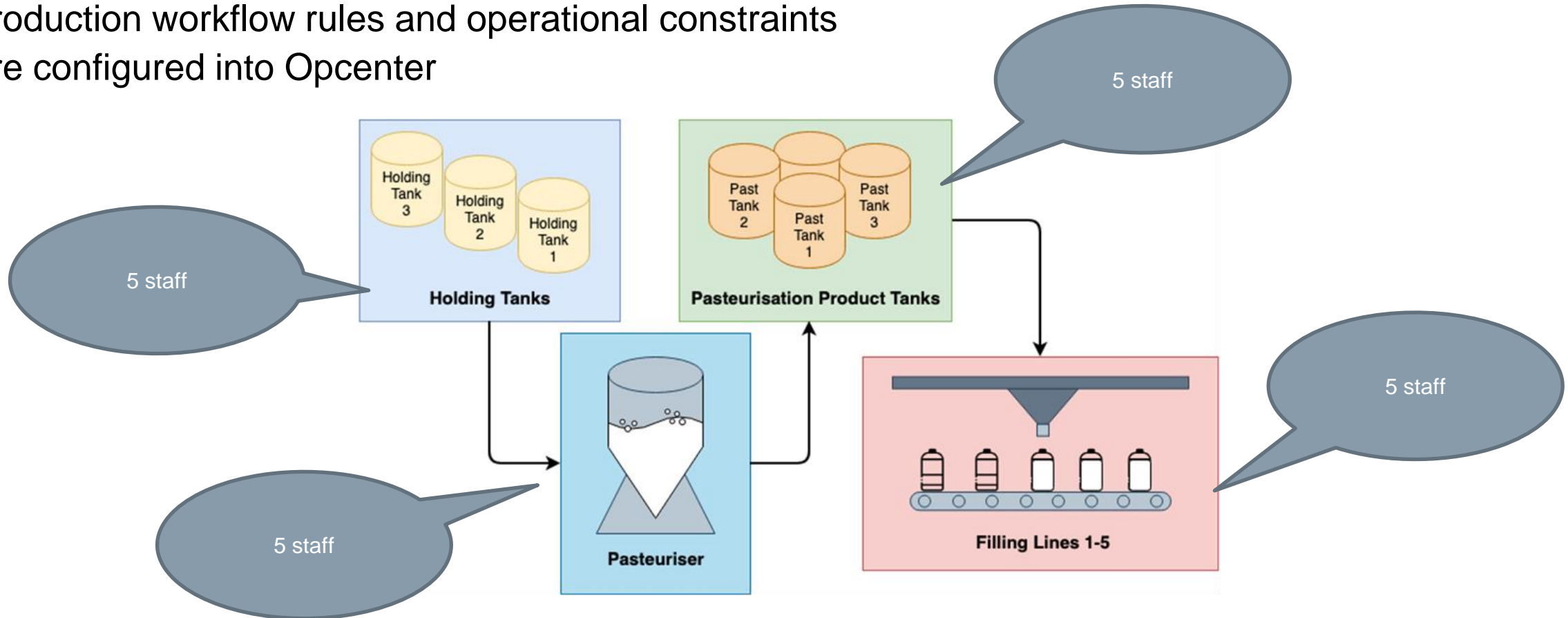
What happens if a machine goes down

Can production deliver the forecasted sales ramp up for the next 5 years?

Introducing Siemens Opcenter Scheduling



Opcenter is configured to follow a company's production workflow rules and operational constraints are configured into Opcenter

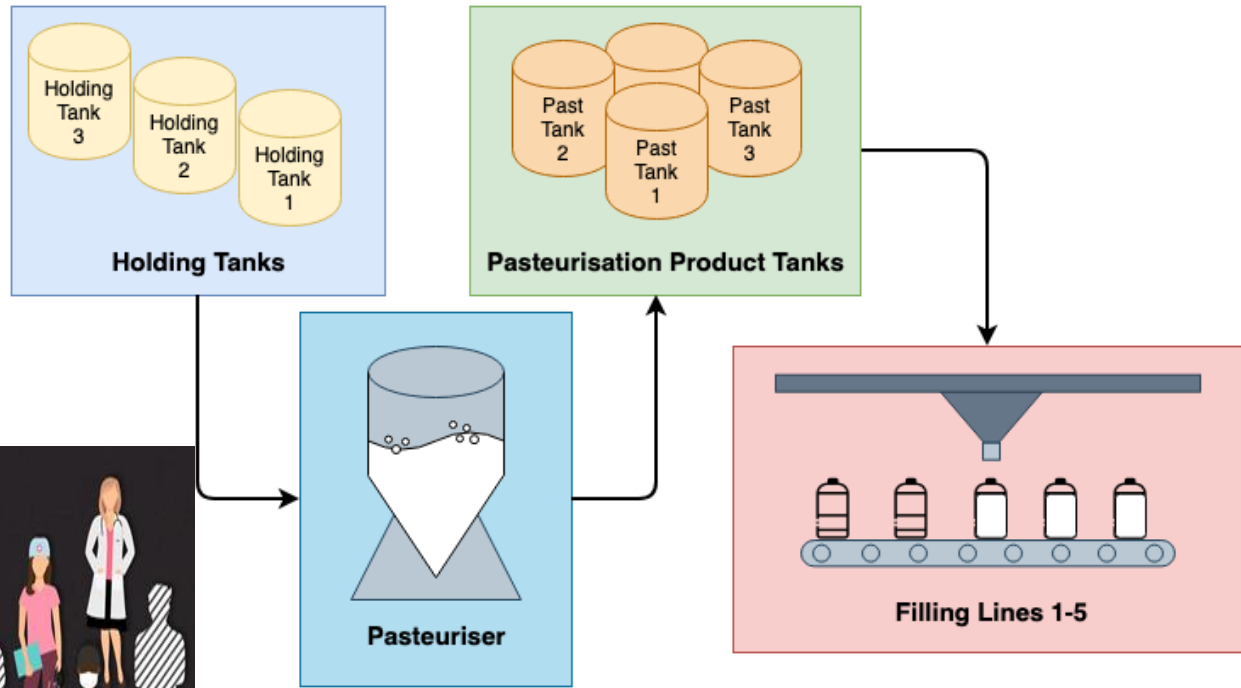
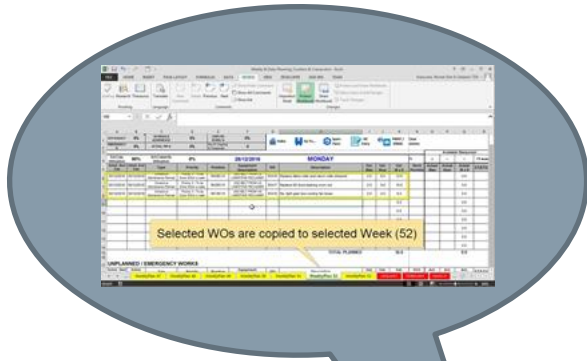


For this presentation, our Opcenter schedule is for a 12-day production run

Issue No 1. Headcount



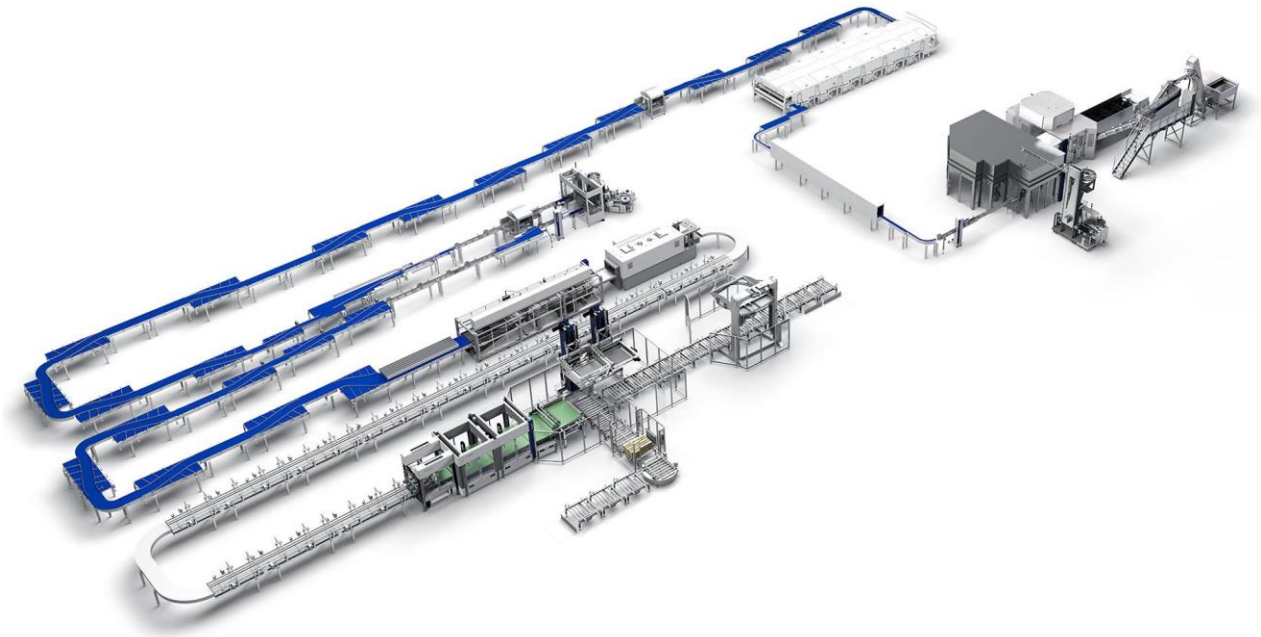
‘My production line team are down by 2, which orders can we push through the remaining team today?’ - key workers are off, so the original planned day’s schedule cannot be followed



Issue No 2. Machine Breakdown



‘A machine has gone down and I can’t get replacement parts or an engineer on site to fix it because of the external visitor restrictions onsite – how does that affect what we can produce?’



Issue No. 3 Stock Ingredients Shortage

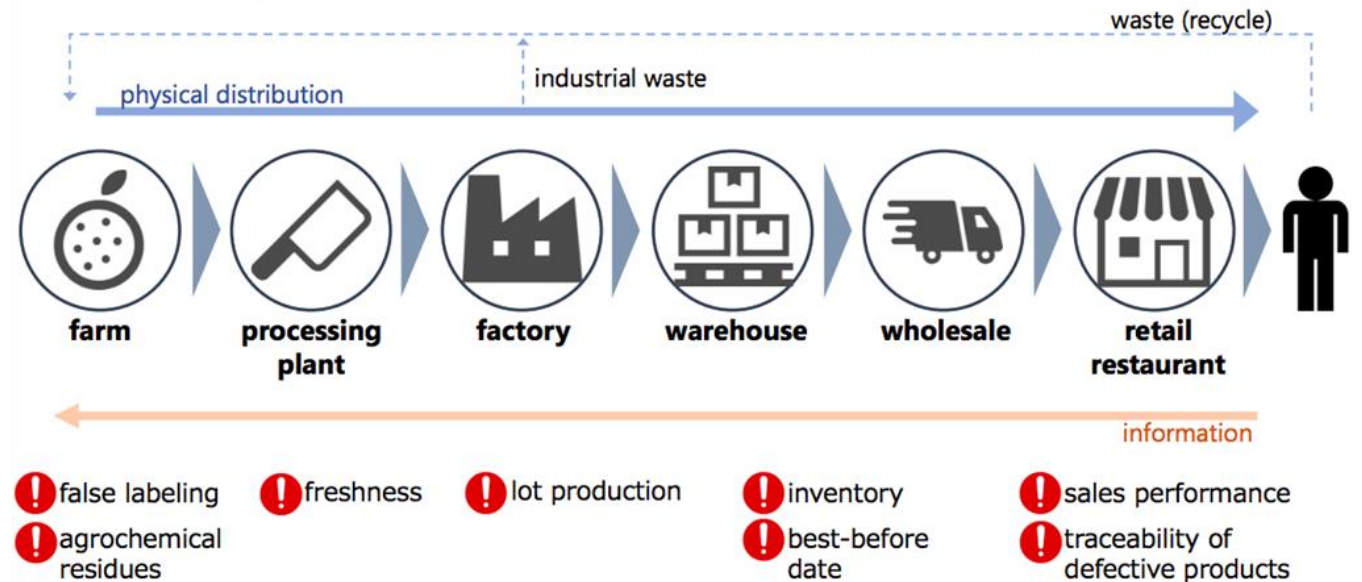


‘The ingredients/materials are not available to follow today’s production schedule – what else can we make until they become available?’

Sources of Supply Chain Risk



Food Supply Chain

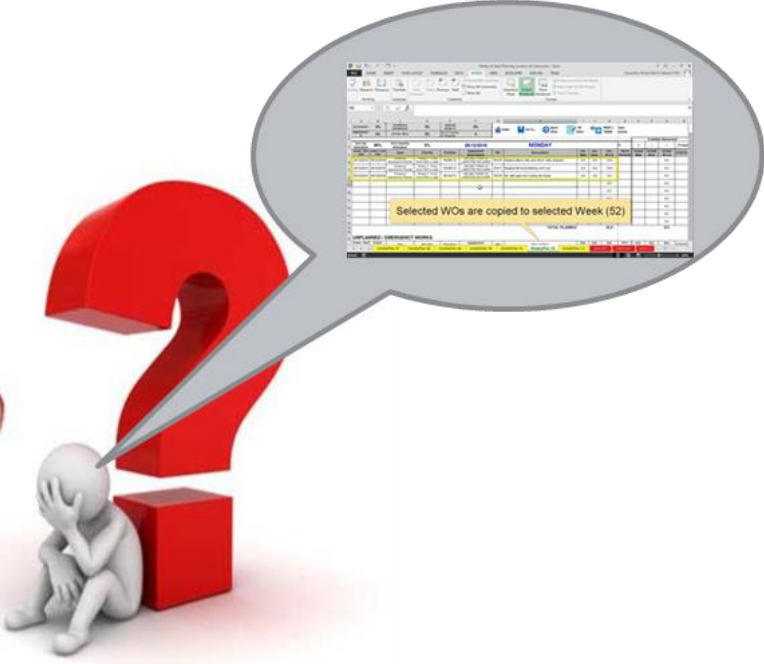


Issue No 4. Prioritising Orders



‘We need to bring this order forward – can we do it?’

What
Do I Do
Now



HOW TO PRIORITIZE

THE EISENHOWER MATRIX

	URGENT	NOT URGENT
IMPORTANT	IMPORTANT & URGENT - DO IT NOW	IMPORTANT & NOT URGENT - SCHEDULE & DO IT SOON
NOT IMPORTANT	URGENT & NOT IMPORTANT - RESCHEDULE OR DELEGATE	NOT URGENT & NOT IMPORTANT - DO LATER OR AVOID!

WATCHING!

Issue No 5. Managing shop floor efficiency

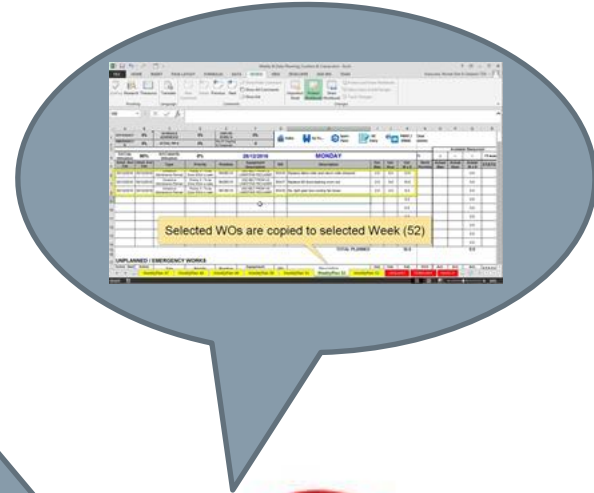
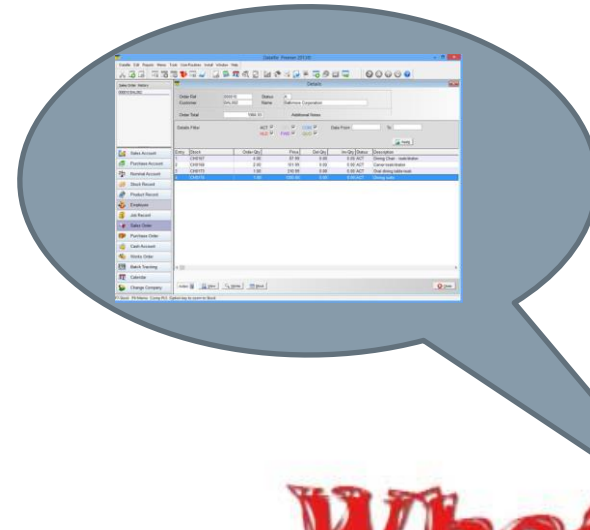
‘We need to allow more time on the shop floor to allow for training new staff, how will this impact on our ability to delivery customer orders on time?’



Issue No 6. Order Enquiry – Capable to promise



‘We’ve got this potential order coming next week can we fit it into our existing plan!!!???’



**What
Do I Do
Now**



To summarise

Using Opcenter Software helps companies -

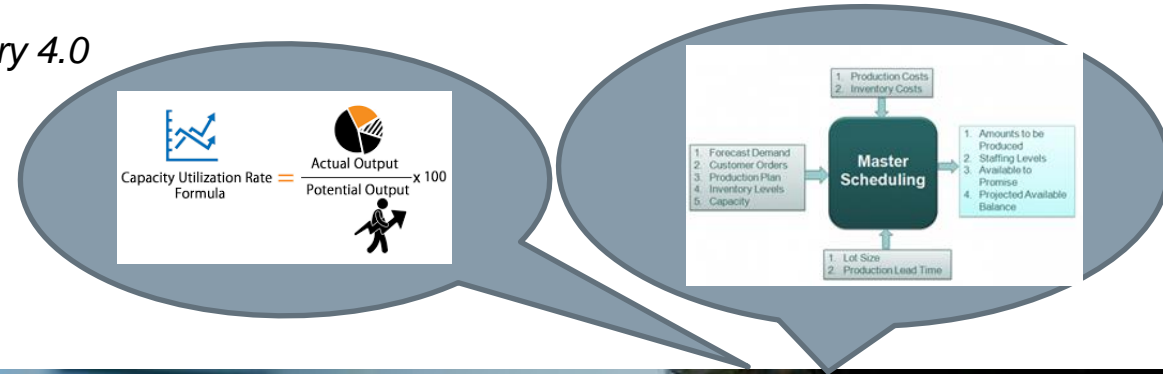


Utilise available machine capacity and resources in the most effective way to meet production demands

Traditional



Industry 4.0



Thank you for listening



Any questions?

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