I. Introduction / Objectives / Context

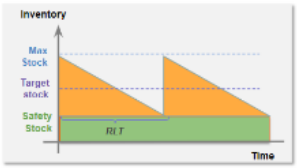
Context and Project Objectives

So… What are the objectives of the P&I?

1. Identify the optimal **Production and Inventory Strategy** for a given product in a given location (plant/warehouse), aligned with the replenishment Lead times and Batch size.

2. Calculate the **Optimum stock levels** based on clearly defined Safety and Cycle stock calculations

"The SHS project aims at defining an E2E approach using the P&I tool, helping to take the right decision"



As today we have used the tool in a g-sheets, now the aim is to use it through Dynasys

Advantages of the P&I in Dynasys

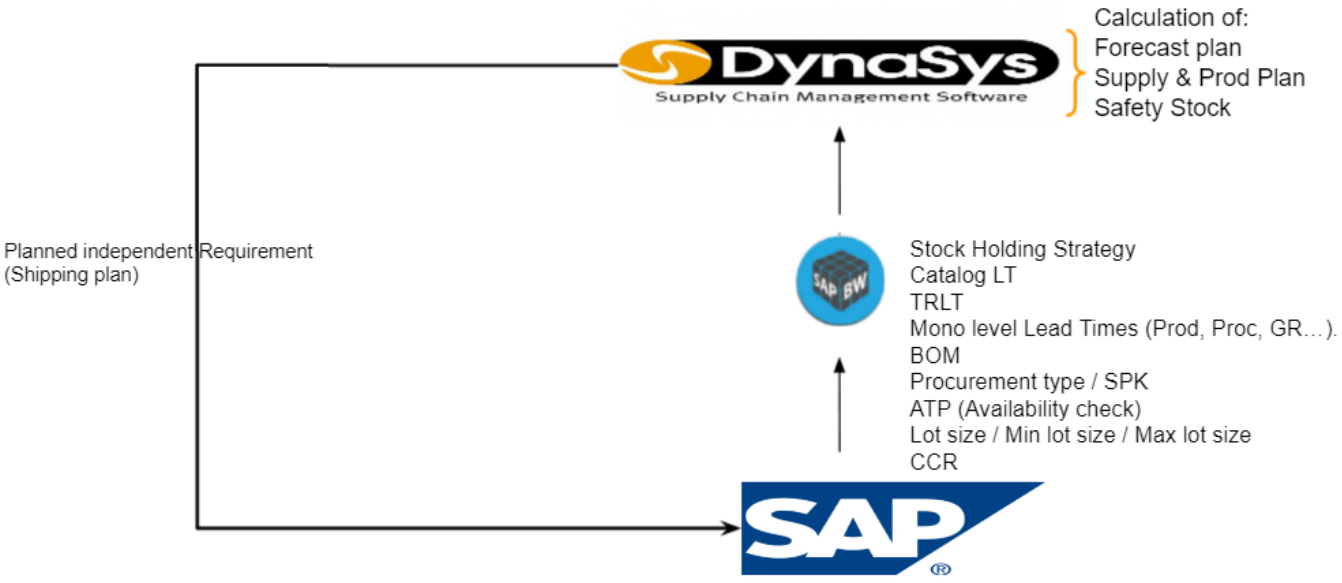
- **Dynamic** : inventory targets defined based on ***sales forecasts***
- Monthly revision : targets will adapt according to S&OP process
- Integrated : calculation of optimum based on SAP & Dynasys data

Key Takeaways

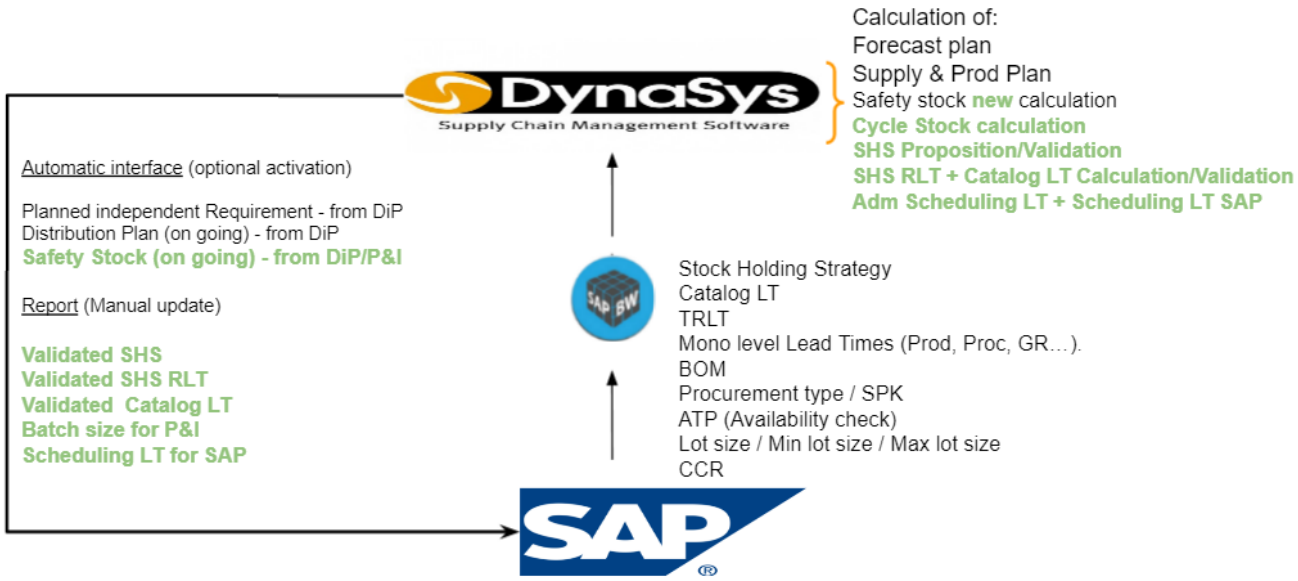
- In general all the Data Source comes from SAP (Initial SHS, Lead Times (Catalog, Production and Procurement LT) and Batch Size)
- The Stockholding strategy (SHS) and Optimum Target inventory calculation are defined in Dynasys (-using multilevel RLT and forecast)
- Manual validation of the decision prior to automated upload in SAP

Macro Architecture before & after P&I

Before P&I



After P&I (Macro flow)



Architecture intra-DynaSys

P&I in DynaSys vs P&I Google Sheet (SCE)

Functionality	P&I SCE Google Sheet file	P&I DynaSys	Comment
1- Automatic interface : • **SAP Lead times** • **Master data**		Yes	1. Purchase & Production related Lead times 2. Ex: BOM, Procurement type, SPK, ATP, Batch sizes, etc...
2- Data Integrity control Alerts		Yes	
3- Calculate Monolevel RLT	Yes	Yes	
4- Calculate SHS RLT (Multilevel, SHS dependent RLT)		Yes	It uses: > BOM from SAP + Distribution network (BOD) > SHS of each Material
5- Propose a SHS	Yes (based on Monolevel RLT)	Yes (based on SHS RLT)	
6- Calculation of Safety Stock, Cycle Stock, Target Stock	Yes (based on Past Demand)	Yes (based on Future Demand)	
7- Simulate SHS and see impact in Safety & Cycle Stock (volume / value)	Yes (monolevel)	Yes (multilevel & distribution network)	By changing the SHS of a component, DynaSys will recalculate the SHS RLT of all the Parents.
8- Reports: Summary, KPIs & Validated changes	Yes	Yes (+ dedicated BW report)	

Documentation list

Title	System	Format	Owner	Description
#10646 E2E P&I in DynaSys	Dyn /SAP	GSlides	Pablo	A full summary o P&I in DynaSys
P&I Wiki	Dyn	Wiki	SBS Dyn	Detailed summary of P&I in DynaSys (user-oriented)
Lead Time Mgt, P&I and Stockholding strategy definition	SAP	GSlides	Greg	Functional doc of different SAP Lead times and link with P&I methodology
SHS RLT calculation explanation	Dyn /SAP	GSlides	Greg	2 slides with generic examples
SHS RLT examples of calculation	Dyn /SAP	GSheet	Pablo	Full example of SHS calculation of a Material produced in Ospiate going to Spartanburg
Architecture SAP + Dyn overview	SAP /Dyn	Google Draw	Pablo	Detailed architecture & data flow from SAP <-> DynaSys. Focus on DynaSys design by layers
SCE_P&I Strategies_Methodology	NA	PPT	Pilar /Carolina	Safety Stock & Cycle Stock formulas, dependent on SHS, Procurement type and type of Product
Intra DynaSys modelling design NO ACCESS	DynaSys	Drive folder	Pablo	Destined to DynaSys consultants, contains intra DynaSys specs
Lead time to be extracted from SAP	SAP	GSheet	Greg	Summary of all SAP LT + technical description which will be used for P&I in DynaSys