

Overview

This document identifies the In-Scope Objects that has been considered to estimate efforts so far as well as the objects to consolidate to refine scope, timelines and estimates at the end of Global Solution Design phase:

- Tabs 1 and 2 include those data objects considered for our Data & Integration effort estimates
- Tab 3 include IT Requirements from RFP
- Tab 4 Include Business Process Scope from RFP Document
- Tab 5.1. include the requirements considered for the Digital SC Planning estimates
- Tab 5.2. include the requirements considered for the CT Planning estimates
- Tab 6 include Business requirements (non functional) from RFP

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Systems	Relevance	America	EMEA	China	Japan	APAC	System Group (assumed same configuration)	CDC Support	No CDC Support
	5 Core								x
3PL	Non Core	x	x			x	3PL		x
3PL & SAP ECC (OCAP)	Core					x	3PL		x
ADSI (Logistyx Technology)	Core	x					ADSI		x
AMS	Non core		x				AMS		x
Applicable : DataSweep & Oracle	Core	x					Custom		x
Arvato (3rd party whs provider) / DAKOSY	Core		x				Arvato		x
ASSIST	Non core	x					ASSIST		x
AS-WEB	Non core					x	AS-WEB		x
Customized application (SILIUS)	Core				x		SILIUS		x
DataSweep	Non core	x					DataSweep		x
DataSweep & Oracle EBS	Core	x					DataSweep		x
IFS	Non Core		x				IFS		x
IFS	Non core		x				IFS		x
IFS & Field Service Mobile App	Non core		x				IFS		x
MS Dynamics AX	Non Core		x				MS Dynamics	x	
Navision	Non Core		x				Navision		x
OBIC7	Core				x		OBIC7		x
OBIC7 Silius	Core				x		OBIC7		x
OKIS	Non core					x	OKIS		x
Oracle EBS	Core	x	x		x		Oracle	x	
Oracle EBS & SAP ECC (For domestic)	Core	x					Oracle	x	
Oracle EBS 12.2.9	Core		x				Oracle	x	
Oracle EBS 12.2.9 + Oracle Agile	Core		x				Oracle	x	
Oracle EBS 12.2.9 + Oracle Agile	Core		x				Oracle	x	
OTS (Olympus Transport system)	Non core			x			OTS		x
Package SW based on Intra-mart, which is highly customized	Core				x		Custom		x
Package SW on AS400	Core				x		Custom		x
Protheus	Non Core	x					Protheus		x
SAP (Chronus)	Core					x	SAP ECC		x
SAP (Jupiter)	Core				x		Jupiter		x
SAP (Jupiter)SiliusCustomized application (Pheonix)	Core				x		Silius		x
SAP CRM/ SAP ECC 6.0	Core		x				SAP CRM	x	
SAP CRM/ SAP ECC 6.0 & SFDC	Core		x				SAP CRM	x	
SAP CRM/SFDC	Core	x					SAP CRM	x	
SAP ECC	Core	x	x	x	x	x	SAP ECC	x	
SAP ECC & SFDC (OAZ)	Core					x	SAP ECC	x	
SAP ECC & SFDC (OCAP)	Core					x	SAP ECC	x	
SAP ECC & SFDC (OCAP), ESAS	Core					x	SAP ECC	x	
SAP ECC (Billing) (HK)	Core					x	SAP ECC	x	
SAP ECC (HK)	Core					x	SAP ECC	x	
SAP ECC (HK) and ESAS	Core					x	SAP ECC	x	
SAP ECC (HK)/GMDM	Core					x	SAP ECC	x	
SAP ECC (Imaging VT, OGZ)	Core					x	SAP ECC	x	
SAP ECC (Imaging VT, OGZ) /GMDM	Core					x	SAP ECC	x	
SAP ECC (MBC)	Core		x				SAP ECC	x	
SAP ECC (MBC)	Core		x				SAP ECC	x	
SAP ECC (MM) - HK	Core					x	SAP ECC	x	

SAP ECC (MM) (HK)	Core					x		SAP ECC	x	
SAP ECC (OAZ)	Core					x		SAP ECC	x	
SAP ECC (OAZ)/GMDM	Core					x		SAP ECC	x	
SAP ECC (OCAP)	Core					x		SAP ECC	x	
SAP ECC (OCAP) & ESAS	Core					x		SAP ECC	x	
SAP ECC (OCAP)/GMDM	Core					x		SAP ECC	x	
SAP ECC (OKR)	Core					x		SAP ECC	x	
SAP ECC (OKR)/GMDM	Core					x		SAP ECC	x	
SAP ECC (OKR)/GroupWare	Core					x		SAP ECC	x	
SAP ECC 6.0 (Jupiter1, Ceres)Oracle EBS	Core				x			SAP ECC	x	
SAP ECC 6.0 (Jupiter1,)GMDM	Core				x			SAP ECC	x	
SAP ECC 6.0 (MM)	Core				x			SAP ECC	x	
SAP ECC 6.0 (MM)(Ouranus)	Core				x			SAP ECC	x	
SAP ECC 6.0 (Ouranus)	Core				x			SAP ECC	x	
SAP ECC 6.0 OCA	Core	x	x	x				SAP ECC	x	
SAP ECC 6.0/ GMDM	Core							SAP ECC	x	
SAP ECC 6.0/ SAP MDG	Core		x					SAP ECC	x	
SAP ECC 6.0/Excel	Core		x					SAP ECC	x	
SAP ECC(MM/WM - Imaging VT, OGZ) & non-SAP WMS	Core					x		SAP ECC	x	
SAP ECC(MM/WM) (Imaging VT, OGZ)	Core					x		SAP ECC	x	
SAP ECC(OCAP) & ESAS	Core					x		SAP ECC	x	
SAP ECC(OCAP), ESAS	Core					x		SAP ECC	x	
SAP ECC(OKR) & AS-WEB	Core					x		SAP ECC	x	
SAP ECC6.0 (China Sales)	Core			x				SAP ECC	x	
SAP MDG	Core		x					Custom		x
SAP-CRM 7.0/ECC 6.0 (Neo-GAIA)	Core				x			SAP CRM	x	
SAP-CRM 7.0/ECC 6.0 (Neo-GAIA)	Core				x			SAP CRM	x	
SAP-CRM 7.0/ECC 6.0 (Neo-GAIA)Unisys	Core				x			SAP CRM	x	
SAP-CRM 7.0/ECC 6.0 (Neo-GAIA)UNYSIS	Core				x			SAP CRM	x	
SFDC & Oracle EBS	Core	x						Oracle		x
Silius	Core				x			Silius		x
SysPro	Non Core		x					SysPro	x	
SysPro	Non Core		x					SysPro	x	
Unisys (Aizu)	Core				x			Unisys		x
Unisys (Shirakawa)	Core				x			Unisys		x
Unisys MPC16 (Aizu), TKC-FX4	Core				x			Unisys		x
Unisys MPC16 (Aomori)	Core				x			Unisys		x
Unisys MPC16 (Hinode)	Core				x			Unisys		x
Unisys MPC16(Shirakawa), TKC-FX4	Core				x			Unisys		x
Unisys(OVNC)	Core				x			Unisys		x
Unisys(OVNC), Customized Application	Core				x			Unisys		x
WMI2017	Core	x						WMI		x
Total			14	23	4	27	30		52	38

ID	Domain	Entities
1	Capacity	1
2	Customer	1
	Customer Order	
	- Basic information	
	- Purchase Contact	
	- Ordered Items	
	- Invoices	
	- Payments	
3	- Shipment status	6
	Customer	
	- Basic information	
	- Master Data	
4	- Address	3
5	Demand Plan	1
	Device Master Record	
	- Specification	
	- Routing	
	- Manufactruring instruction	
	- Bill of materials	
	- Bill of Equipment	
6	- CTQ Parameters	6
7	Distribution Plan	1
8	Employee	1
9	Forecast	1
10	Inventory Plan	1
	Inventory	
	- Basic information	
	- Characteristics	
	- Status	
	- History	
11	- Issues	5
	Invetory Lot	
	- History	
12	- Issues	2
	Item & Material	
	- Descriptions	
13	- Specification test	2
14	Label	1
	Product (Capital Equipment)	
	- Product Master	
	- Product Type	
15	- Device Master Record	3
	Production Order	
	- Basic information	
16	- Scheduling	2
17	Production Plan	1

	Purchase Order	
	- Basic information	
	- Receipt	
	- Invoice	
18	- Payment	4
19	Repair Plan	1
20	Replenishment Plan	1
21	Returned Material Authoritzation	1
	Sales	
22	- Plan	1
	Shipments	
	- RDD	
	- ASN	
	- Customs	
	- Scheduling	
	- Status	
	- ETA	
23	- Vehicle	7
	Supplier	
	- Basic information	
	- Address	
	- Contacts	
	- Locations	
24	- Contracts	5
25	Supply Plan	1
	Total	59

Project Request - Digital SC Planning & CT Transformation

Annex B - Business and IT Requirements (non functional) - IT

ID	Category	Subcategory	Description
1	Implementation	Implementation quality standard	- Adhere to GxP/ISOX relevant verification, audit trailing and documentation guidelines for applicable system e.g. Finite scheduling
2	Test	Perform automated testing/ nightly builds	- Ability to automate testing where feasible (e.g., SIT). After Go-live this must be handed over to Olympus. Provide nightly test results to Olympus for transparency
3	Test	Test scope and execution	- Manage and deliver e2e tests including but not limited to - Unit testing, System Functional and Integration testing (OQ), Authorization testing, Regression testing, Stress Testing, Performance Testing, Disaster Recovery Test, Penetration Testing, Data Migration testing and any other functional/non-functional testing deemed necessary.
4	Test	UAT script creation	- Best Practices / Coaching / Templates for UAT script creation to be provided by SI, Test coordination by SI, Olympus to create UAT test scripts
5	Test	UAT issue resolution SLA	- Implement Olympus SLAs for defect resolution in ServiceNow with development team based on the SLAs specified in the <i>Annex I - Olympus Incident Management Standards</i>
6	Test	Test approach	- Define test approach including entry/exit criteria and deliverables for each test phase - Provide language support for test documentation, test coordination and tester training according to Business Requirement ID.7 and ID.8 - Report into Olympus Test Management Lead(s) and ensure compliance to defined and aligned test approach
7	Test	Test management	- Review and improve 'ways of working' based on the program needs and 'lessons learnt' by liaising with Olympus Test Management and Validation leads
8	Test	Best practice	- Provide best practice input throughout the Test phase from test approach definition to final report creation for approval
9	Test	Test organisation	- Define test organisation and Roles & Responsibilities across testers for test deliverables - Conduct capacity planning of test resources to ensure availability or right resources
10	Test	UAT preparation	- Conduct dry-run to simulate 'day in life' of relevant roles and E2E processes prior to executing UAT
11	Test	Test traceability	- Maintain traceability matrix showing 100% coverage of Functional and Technical specifications
12	Test	Test tool	- Utilise Olympus' test management tool (SAP Solution Manager) to coordinate and deliver tests globally (i.e. upload/update of test cases, creation/change of test plans/packages, tester assignment, tester access control, etc.)
13	Incident management	Portal for incidents log	- Utilise the following solutions to log and manage incidents depending on the phase: 1) Test phase: Service Now (Test +Defect Mgmt) 2) Post go live: Service Now (incident mgmt) The application team will have to liaise with the Infrastructure team for incident log <u>Please refer to the Annex I - Olympus Incident Management Standards for details regarding SLAs</u>
14	System Change management	Portal for change log/ backlog	- Utilise the following solutions to log and manage change requests depending on the phase: 1) Test phase: Service Now 2) Post go live: Service Now The application team will have to liaise with the Infrastructure team for change request log
15	System Change management (project phase)	Expected response and leadtime	
16	System Change management (project phase)	Governance for technical designs, process designs and other produced blue-print documents	- Obtain approval in Olympus governance boards (e.g., CAB, Process/ Tech Councils, SteerCos, Sounding Boards, others...) as requested
17	System Change management (project phase)	Governance for change management	- Utilise Olympus' system change governance process, calendar and classification for dealing with a change request
18	System Change management	Governance for change management	- Adhere to Olympus' system change management governance calendar
19	IT Operations handover	IT guidebook	- Provide FAQs and guidebook to handle common questions from end users e.g. security, incident, etc.
20	IT Operations Handover	Guidebook to add/ remove new Legal Entities	- Create a technology-related guide document to add new entity for carve outs and acquisitions from M&A Activities
21	IT Operations handover	Training	- Provide training to Olympus IT and AMS to enable management of 'first line' technical requests
22	IT Operations Architecture	Configuration Management Database	- Register the required IT assets in the Configuration Management database
23	IT Operations Architecture	Disaster recovery	- Define RTO/RPO parameters and backup / recovery approach
24	IT Operations Architecture	Application security	- Implement application security protocols and manage penetration testing
25	IT Requirements management	Application security	- Manage Logging and Monitoring activities
26	IT Requirements management	Application security	- Ensure encryption for data in transit (mandatory) and at rest (mandatory for JSOX applications)
27	IT Operations Architecture	Software Lifecycle management	- Manage Software / Hardware life cycles and patch management
28	IT Hypercare	Support expectations	- Provide 24/7 available Post Go Live support to handle, escalate and solve system issues based on SLA - Please refer to SLAs in Annex I - Olympus Incident Management Standards
29	IT Hypercare	Hypercare scope	- Provide a Hypercare team to support user enquiries for system go-live
30	IT Hypercare	Hypercare duration	- Extend the hypercare duration to a minimum of 3 weeks for each implemented use case/ module and provide exit criteria for Hypercare closure (e.g. all P1 closed with accepted RCA)
31	System Accounts	System Accounts	- Enable Multi-factor Authentication for a remote administrator access to the system and the creation and management of privileged accounts
32	IT Operations Architecture	IT System Capacity Management	- Define a capacity management framework to proactively review and adjust capacity as needed during the ongoing life of the environment.
33	IT Operations Architecture	Alerting/Monitoring	- Define parameters to monitor system function and to alert on anomalies or malfunctions

Area	Process	Lvl 3	Lvl 4	Lvl 5
Demand Planning	Statistical Forecasting	OLY	SI	SI
	Forecast adjustment	OLY	SI	SI
Supply Planning	Net requirements planning (NRP)	OLY	SI	SI
	Capacity planning/RCCP	OLY	SI	SI
	Replenishment Management	OLY	SI	SI
	Master production scheduling (MPS)	OLY	SI	SI
	Detailed Scheduling	OLY	SI	SI
	Material requirements planning (MRP)	OLY	SI	SI
	E2E SC & Inventory Management	OLY	SI	SI
S&OE	S&OE and Control Tower	OLY	SI	SI
IBP	Portfolio Management Review	OLY	SI	SI
	Demand Review	OLY	SI	SI
	Supply Review	OLY	SI	SI
	Integrated Reconciliation	OLY	SI	SI
	Management Business Review	OLY	SI	SI
Control Tower	Replenishment (e.g. order creation, warehouse inbound/ outbound)	SI	SI	SI

Legend – OLY: Responsibility of Olympus; SI: Responsibility of Vendor

Req ID	Optional/Core	Process Area	Sub-Process Area	Capabilities	Capabilities Description	O9-Complexity
RQ-224	Core	Production Planning	MRP	Change of MRP	Support of a direct entry/change of MRP elements without separate transfer, e.g. an entry on SNP level is directly effective on MRP level (same elements)	Low
RQ-225	Core	Production Planning	MRP	Optimized production planning	Creation of optimized production plan (from days up to 24 month level) based on previous process steps in units, Cost, Margin, Budget, Capital employed on aggregated/disaggregated level	Medium
RQ-226	Core	Production Planning	MRP	Optimized raw material plan	Support of optimized raw material plan (in units per hours, plant, line and unpacked product & packed good per day) from days up to 24 month	Medium
RQ-227	Core	Production Planning	MRP	Planning objects settings	Generation, adaption, deletion of planning objects of all kinds automatically (planned order, purchase requisition, transfer orders) The system shall support the change of fixed PRQs and/or fixed planned orders and/or other fixed planning elements based on rules enabling the planner to focus on other topics.	High
RQ-228	Core	Production Planning	MRP	MRP planning	It shall be possible to run a full MRP/replenishment planning of delivery locations in customer country.	Medium
RQ-229	Core	Production Planning	MRP	Production plan	MRP processing execution timing can be set and changed arbitrarily.	Low
RQ-230	Core	Production Planning	MRP	Production plan	It is possible to specify the order in which the control center is displayed in the daily fraction production plan.	High
RQ-231	Core	Production Planning	MRP	Production plan	Visibility of the inventory of safety standard values indicates whether or not to procure as desired.	Medium
RQ-232	Core	Production Planning	MRP	Production plan	Production plans for both products and repair parts based on PSI plans can be managed in one environment and identified by the management side	Low
RQ-233	Core	Production Planning	MRP	Production plan	Production plans for both products and repair parts based on PSI plans can be managed in one environment and identified by the management side	Low
RQ-234	Core	Production Planning	MRP	Production plan	It is possible to circulate MRPs even if there is a plant that is not operating as a plant for a new production management system.	High
RQ-235	Core	Production Planning	MRP	Production plan	The number of orders is determined based on the set criteria for ordering	Medium
RQ-236	Core	Production Planning	MRP	Simulation	Can be simulated in a new ERP/MRP for changes in production rate	Low
RQ-237	Core	Production Planning	MRP	Simulation	Simulation can be done dynamically and on approval can be updated into real plan.	Medium
RQ-238	Core	Production Planning	MRP	Calculation	Establishment of requirement calculation (MRP calculation) (e.g., safety stock value, order point calculation, etc.)	Medium
RQ-239	Core	Production Planning	MRP	Calculation	It is possible to calculate the time bucket requiring materials and the expected date of ordering from the standard lead time.	Medium
RQ-240	Core	Production Planning	MRP	Production plan	The MPS preparation period, approval period, and order cycle/cycle days can be set at each site.	Medium
RQ-241	Core	Production Planning	MRP	Production plan	Flexibility to update MPS manually	Medium
RQ-242	Core	Production Planning	MRP	Production plan	Production plans can be updated to include forecasts	Medium
RQ-243	Core	Production Planning	MRP	Calculation	MRP process can be performed in several beads on a site-by-site basis	Medium
RQ-244	Core	Production Planning	MRP	Calculation	Be able to calculate the shortage as a net requirement by subtracting the inventory and the ordered residual of the parts.	Medium
RQ-245	Core	Production Planning	MRP	Calculation	Requirements can be calculated from the number of requirements, procured L/T, stock standard values, etc.	Medium
RQ-246	Core	Production Planning	MRP	Calculation	It is possible to reroute production if there is a plant	Medium
RQ-247	Core	Production Planning	MRP	Calculation	MRP process can be performed on a daily basis, at least on a daily basis.	Low
RQ-248	Core	Production Planning	MRP	Calculation	Net change (net change) and regeneration (timeline re-planning) can be achieved.	Medium
RQ-249	Core	Production Planning	MRP	Calculation	Ability to calculate and update the cumulative lead time for designated items and dates	Medium
RQ-250	Core	Production Planning	MRP	Calculation	Can calculate the ordering point	Medium
RQ-251	Core	Production Planning	MRP	Calculation	It is possible to set stock reference values and order based on them.	Medium
RQ-252	Core	Production Planning	MRP	Calculation	It is possible to manually review safety stock values - Prerequisites for Manual Ordering Apart from MRP Ordering	Low

Project Request - Digital SC Planning & CT Transformation

Annex C - Functional Requirements (CT)

ID	Process Area	Sub-Process Area	Requirement/ UC	Requirement Description
1	Control Tower	S&OE and Control Tower	Capabilities	Predict undesirable outcomes (consisting of: Late, delays, Real time ETA, etc.) and improve resilience using machine learning and leveraging historical performance of carriers
2	Control Tower	S&OE and Control Tower	Capabilities	Ability to assign exceptions to various roles in the organization, and ability to change assignment of exceptions
3	Control Tower	S&OE and Control Tower	Capabilities	Ability to conduct root cause analysis of issues and drill down into specific transactional exceptions
4	Control Tower	S&OE and Control Tower	Capabilities	Ability to customize filters applied to data and selection of the tracking scope, i.e. what demand (actual vs plan, market, customer, product, time) is to be tracked
5	Control Tower	S&OE and Control Tower	Capabilities	Ability to manipulate data at the user level to sort, filter, search, and drill down into data that has been ingested into the control tower platform
6	Control Tower	S&OE and Control Tower	Capabilities	Ability to send pre-populated emails containing details regarding an issue to the predetermined resolver (e.g. email a supplier about an overdue shipment, or notify a warehouse manager of a priority receipt)
7	Control Tower	S&OE and Control Tower	Capabilities	Ability to write back to source systems from the Control Tower. Machine Learning to recommend improvements or adjustments to source system data based upon common issues.
8	Control Tower	S&OE and Control Tower	Capabilities	Able to create a user profile for suppliers (including 3PLs) to escalate alerts as necessary and enable extended supply chain communication And to create E2E visibility incorporating insights from suppliers, contract manufacturers, carriers, and 3PLs
9	Control Tower	S&OE and Control Tower	Capabilities	Actionable exceptions that the system can process a. Perform exception management b. Early warning alerts i. Resolve issues BEFORE disruptions occur c. Execute – leveraging a collaborative response framework
10	Control Tower	S&OE and Control Tower	Capabilities	Alerts users to exceptions processing real time data across the supply chain. Analyzing supply constraints using prescriptive and predictive analytics (e.g. Supply and demand mismatch, logistics milestone delays, or...). Manages alerts for a user in a central dashboard. Provides ability to set reminders for alerts.
11	Control Tower	Inventory Optimization & Control	Capabilities	Automatically identify risks or exceptions and will change supply chain parameters in a closed-loop learning approach to mitigate them. Cognitive computing to handle a broad spectrum of exceptions without human involvement and to only leverage the human manager for the disruptive events/new events.
12	Control Tower	S&OE and Control Tower	Capabilities	Cognitive automation that enables automated response by systems without manual intervention. Guidance of issues requiring attention by automatically generated alerts, based on user-defined rules or identified by cognitive capabilities of the system

13	Control Tower	S&OE and Control Tower	Capabilities	Collaboration integration with all other OLY groups i.e. business continuity, planning, security, etc. a. Share information and collaborate in real time
14	Control Tower	S&OE and Control Tower	Capabilities	Integration and visualization of data along internal and external SC network partners in real-time
15	Control Tower	S&OE and Control Tower	Capabilities	Intelligent control tower that monitors and provides decision support for supply chain risks. to monitor, manage, control and execute decisions. a. Provide visibility not to just what is happening, but what could happen that would adversely affect the organization. b. Elevate supply chain risks
16	Control Tower	S&OE and Control Tower	Capabilities	Landing page that provides an overview of alerts, KPI performance, and automated decisions/actions with ability to drill-down along defined hierarchies and to "jump" directly into relevant tool user interface
17	Control Tower	S&OE and Control Tower	Capabilities	Learn – Continuously learn, sense and respond a. Machine learning
18	Control Tower	S&OE and Control Tower	Capabilities	Leverages Machine Learning to improve recommendations based historical user responses and measured impacts of recommendations
19	Control Tower	S&OE and Control Tower	Capabilities	Provide SMS or email alerts to users
20	Control Tower	S&OE and Control Tower	Capabilities	Support root cause analysis of business issues and enable drill down into specific actionable issues with clear recommendations. System learns from past recommendations and improves recommendations made to users based upon results
21	Control Tower	S&OE and Control Tower	Capabilities	Track providence of end-user defined reports, dashboards, scorecards etc.
22	Control Tower	S&OE and Control Tower	Capabilities	Workflows that are triggered within the platform by use cases requiring collaboration among multiple user roles across different domains (including but not limited to supply chain planning, logistics, manufacturing, customer service). Ability to collaborate within the tool to pass off tasks and results of models or recommendations between users. Monitor the status of tasks, set automated reminders, and escalate to additional user roles if necessary. Audit actions of historical transactions as necessary.
23	Control Tower	S&OE and Control Tower	Customer Service	Ability to create an interface for customers to receive updates on orders and shipments
24	Control Tower	S&OE and Control Tower	Customer Service	Capable of using natural language processing and machine learning to analyze unstructured data from customers to create insights
25	Control Tower	S&OE and Control Tower	Customer Service	Existing Customer Use Case that (1) analyzes at risk customer orders, predicts lead times using historical performance, recommends operations to modify shipping methods and evalutes tradeoffs, and (2) analyzes customer complaints and inquiries using natural language processing
26	Control Tower	S&OE and Control Tower	Global Trade and Customs	Existing Customs Module that (1) exceptions handling for errors in customs documentation including use of AI and regulatory databases to analyze tariff codes and identify potential errors, recommend correct tariff codes, and leverage machine learning to improve recommendations over time (e.g. identifying the wrong HS code, recommending alternatives, and improving recommendations based upon the selected classification of the user). Entry Number from Broker in Real time, Time Stamp of Release or Hold notification for CBP/ FDA/ CPS Dashboard of action items to take action
27	Control Tower	S&OE and Control Tower	Logistics	Analytics and outcome simulations ‘Logistics what if’s’ a. Analyze – recognize and capitalize on incoming data b. Scenario simulations c. Use predictive and prescriptive decision support
28	Control Tower	S&OE and Control Tower	Logistics	Security – Level partitioning based on access
29	Control Tower	S&OE and Control Tower	Logistics	A central dashboard exists to alert on potential exceptions. Automated workflows route the exception to the correct user/team for execution. Escalation occurs via set channels if the issue is not resolved.

30	Control Tower	S&OE and Control Tower	Logistics	A dashboard exists to inform Olympus personnel of anticipated shipment delays due to high volumes, accidents, weather disruptions, etc. These are communicated to the appropriate user upon detection. The system is able to see where the delays happen(production, inbound, outbound, transportation.
31	Control Tower	S&OE and Control Tower	Logistics	Ability to create custom views based upon role, and to tie those views/roles to preassigned workflows based upon region, function, and business
32	Control Tower	S&OE and Control Tower	Logistics	Ability to recommend an optimal mitigation strategy for exceptions (network delays, customs delays, weather systems, flight and vessel traffic volumes, etc.). Data-driven insights are developed by the system and automatically executed against using enterprise systems
33	Control Tower	S&OE and Control Tower	Logistics	Adaptive to supply changes i.e. as the SC and Carriers shift a. Flexibility b. Cloud based or atleast very accessible via a Portal c. Sense – get real time end to end insights
34	Control Tower	S&OE and Control Tower	Logistics	An automated path should exist to alert the appropriate groups to upstream and downstream exceptions/issues with orders. The system should generate supply chain delay notifications / alerts when an exception has occurred which impacts arrival to or departure from the warehouse
35	Control Tower	S&OE and Control Tower	Logistics	Develop a supplier selection dynamic direct-ship decision model (essentially the conditions which must be met to require/allow direct-ship). A path exists to intake and track direct-shipment information and relay it to Olympus/customers.
36	Control Tower	S&OE and Control Tower	Logistics	End to end visibility a. Across all supply chain partners; suppliers, contract manufacturers, transportation carriers and 3PL's
37	Control Tower	S&OE and Control Tower	Logistics	Existing Logistics Module/Use Case that provides (1) Alerts and exceptions handling and notification for shipment delays, measure impact of delay, and recommend optimal resolution (including analyzing tradeoffs between alternate modes of transportation) - automatic exceptions handling as part of mitigation plan, (2) estimate lead times and predict and evaluate risks of delays in shipping using AI/ML (for example predicting potential capacity constraints at end of year, or predicting a delay based upon historical performance or a geographical incident), (3) system can automate replenishment (with verification steps) based upon optimized replenishment plans, (4) evaluates historical shipping patterns and to recommend ways to optimize logistics and reduce spend
38	Control Tower	S&OE and Control Tower	Logistics	Freight Payment module to enable freight payment and consolidation
39	Control Tower	S&OE and Control Tower	Logistics	If an error occurs in freight payment, the correct user should be notified by the system
40	Control Tower	S&OE and Control Tower	Logistics	Leverage AI to assess potential future process exceptions and escalate to users for proactive management (e.g. potential capacity constraint at the end of quarter for a carrier/transportation lane)
41	Control Tower	S&OE and Control Tower	Logistics	Leverage Machine Learning to learn from user responses and create future recommendations and trigger automated actions/workflows

42	Control Tower	S&OE and Control Tower	Logistics	Link inbound order quantities, WIP, and forecasted demand to inform capacity needs. Link to warehousing and transportation functions. Perform trend analysis and leverage forecasted demand to plan site-specific labor, maintenance, etc.
43	Control Tower	S&OE and Control Tower	Logistics	Measure and report performance against the end customer SLA / agreed terms by site, group, product, region, etc.
44	Control Tower	S&OE and Control Tower	Logistics	Need ability to utilize geographical maps and charts to display data. Need to capture historical trends in reports
45	Control Tower	S&OE and Control Tower	Logistics	Need to be able to conduct Root Cause Analysis and drill down into the source and impact of a potential error
46	Control Tower	S&OE and Control Tower	Logistics	Need to be able to export data from exceptions management insights to excel
47	Control Tower	S&OE and Control Tower	Logistics	Need to generate pre-formatted emails regarding specific issues for use cases in exceptions management platform
48	Control Tower	S&OE and Control Tower	Logistics	Need to have ability to highlight IB shipments as a priority due to short stock or back ordered items being in the shipment. This will require PO, inventory status and detailed shipment information being mapped into CT.
49	Control Tower	S&OE and Control Tower	Logistics	Need to provide historical process performance (e.g. time to resolution)
50	Control Tower	S&OE and Control Tower	Logistics	Need to track work in progress for issue resolution (including tracking against workflow), need automated reminders to follow-up on pending actions. Need to be able to mark actions as complete and validate against status in the ERP
51	Control Tower	S&OE and Control Tower	Logistics	Need to write-back to ERP system if corrective action is necessary
52	Control Tower	S&OE and Control Tower	Logistics	Need workflows so that I can pass tasks off and create a cross functional response to exceptions (e.g. notifying customer service of any updates or status of an order, updating a customer portal with new shipping information), and ability to track user actions against workflows
53	Control Tower	S&OE and Control Tower	Logistics	Order ownership needs to be clearly defined in the system and displayed on a central interface. Improvements should be captured in set KPIs, which can be compared against other regions and sites, and leveraged to identify best practices
54	Control Tower	S&OE and Control Tower	Logistics	Provide real time transportation data through existing connections to your platform with 3rd party carriers. Minimum standard of the Tier 1 Carriers (see attachment) Able to search transportation data by reference invoice #, Part #, PO# and HAWB #
55	Control Tower	S&OE and Control Tower	Logistics	Real-time market data including major recalls, innovations, etc. is integrated with order management and execution systems to inform decision-making
56	Control Tower	S&OE and Control Tower	Logistics	Real-time traceability and alerting is available for ET products and includes lot number and expiration date information.
57	Control Tower	S&OE and Control Tower	Logistics	Shipment cost association to Div/BU
58	Control Tower	S&OE and Control Tower	Logistics	Shipment progress is reported automatically and does not require manual intervention (i.e., e-mail, spreadsheets)
59	Control Tower	S&OE and Control Tower	Logistics	The system allows us to use real-time data from external suppliers, tier two suppliers, and internal functions (warehouses) to automatically inform planners of impact to the existing forecast / plan when a disruption occurs
60	Control Tower	S&OE and Control Tower	Logistics	The system flags orders if there is a region/product specific regulation that cannot be handled with standard processing and manual intervention is needed
61	Control Tower	S&OE and Control Tower	Logistics	The system has ability to see cost and lead time comparison quickly when we have to make judgements due to unexpected delay
62	Control Tower	S&OE and Control Tower	Logistics	The system identifies the need for and leverages flexible freight and warehousing capacity platforms to identify and use external capacity
63	Control Tower	S&OE and Control Tower	Logistics	The system is capable of automatically executing fulfillment processes, with verification steps, stemming from automatic replenishment signals

64	Control Tower	S&OE and Control Tower	Logistics	The system must be able to capture and report against reason codes captured from multiple sources against a load for On-Time compliance related purposes. Primary purpose of these reason codes would be to determine the root cause for service failures.
65	Control Tower	S&OE and Control Tower	Logistics	The system must proactively monitor and alert users against EDI / API events. Examples include: late pickup or delivery appointments, drivers delayed, missed proof of delivery, etc. Based on specific events and pre-configured time thresholds, the user must receive an alert and/or email to act against the missed or delayed milestone.
66	Control Tower	S&OE and Control Tower	Logistics	The system needs to use identifiers to delineate between requirements which exist for each division (MBC vs. SBC), customer, product, region etc. to inform the workflow used and how an order is executed
67	Control Tower	S&OE and Control Tower	Logistics	The system provides bi-directional insights into the order book / queue, to be released orders, back orders, usage of consignment stock/stock levels and when demand surges are expected to occur.
68	Control Tower	S&OE and Control Tower	Logistics	The system reports inventory levels in real-time and displays order owner and allocation status
69	Control Tower	S&OE and Control Tower	Logistics	The system should notify the correct user if customs paperwork is missing from an order or if COO, or other critical fields, have not been included in the documentation
70	Control Tower	S&OE and Control Tower	Logistics	The system uses order/shipment specific requirements as a constraint and alerts the appropriate parties if the shipment is not, or will not be, in compliance
71	Control Tower	S&OE and Control Tower	Logistics	Timely data with as near real time as possible accessibility (hourly)
72	Control Tower	S&OE and Control Tower	Logistics	We need a system that senses disruptions to logistics process flows through direct real time or near real time data sources depending upon the use case (warehouses, carriers, freight forwarders, customs clearance) and immediately escalates it to the right managers
73	Control Tower	S&OE and Control Tower	Logistics	We need systems/tools to support fast decision-making on whether to use the service or not when the applicable freight rate/cost is changed, unifying all Freight Payers to the origin country, etc. and to check other alternative plans (including costs) when the service we normally use is no longer available
74	Control Tower	S&OE and Control Tower	Planning	Ability to address, review and visualize cost and financial impact (cost, margin, revenue, etc.) along the E2E supply chain, decision support
75	Control Tower	S&OE and Control Tower	Planning	Ability to make decisions from control tower and push back to execution system
76	Control Tower	S&OE and Control Tower	Planning	Ability to review assumptions from previous optimization cycle
77	Control Tower	S&OE and Control Tower	Planning	Adjustment of existing sales plans on risk based decision options
78	Control Tower	S&OE and Control Tower	Planning	Adjustment of sales plan considering the demand changes mentioned above
79	Control Tower	S&OE and Control Tower	Planning	Adjustment of the product mix taking into account the tracked demand signals in order to generate a recalibrated margin-optimized sales plan
80	Control Tower	S&OE and Control Tower	Planning	Adjustment of the volume distribution to customers / channels / segments taking into account the tracked demand signals in order to generate a recalibrated margin-optimized sales plan
81	Control Tower	S&OE and Control Tower	Planning	AI capability to access if there are non traditional gaps or issues that have not been pre configured as an area to monitor.
82	Control Tower	S&OE and Control Tower	Planning	Alerting on deviations (price, volumes, etc.) or external impacts on short-term demand (weather, competitor actions, etc.)
83	Control Tower	S&OE and Control Tower	Planning	Allocate inventory based on minimum shelf life required by region. Need flexibility to turn feature on as needed
84	Control Tower	S&OE and Control Tower	Planning	Analysis of changes (root cause, long-term/short-term effects, ...)

85	Control Tower	S&OE and Control Tower	Planning	Application of various analytics methods incl. Order delay/ re-scheduling analytics, Order lead time analytics, Sales price variance analytics, Recommendations for actions and tracking, Business rule adherence
86	Control Tower	S&OE and Control Tower	Planning	Automated adjustment of the prices taking into account the tracked demand signals in order to generate a recalibrated margin-optimized sales plan
87	Control Tower	S&OE and Control Tower	Planning	Customer promised dates are monitored and ensured, alerted if issues occur
88	Control Tower	S&OE and Control Tower	Planning	Detailed analysis of customer complaints, customer inquiries, ordering pattern, CCS exception/violation, order blocks, financial performance of customers, internal effort for servicing customers (e.g. exception handling. Touches per orders, complexity) vs. margin
89	Control Tower	S&OE and Control Tower	Planning	Differentiated authorization concept including "view" and "change" transaction roles
90	Control Tower	S&OE and Control Tower	Planning	Export of visualized / selected data scope into common format such as csv, xls, etc.
91	Control Tower	S&OE and Control Tower	Planning	Forecast consumption models can flexibly defined, analyzed and optimized. Ideally, a standard set of FC consumption models is available.
92	Control Tower	S&OE and Control Tower	Planning	Generation of ad-hoc views and reports along various dimensions, units, and levels of forecast aggregation (e.g., by volume, price, cost, product hierarchies, geographical hierarchy, customers/customer hierarchy) and easily compare demand scenarios (incl. graphical form)
93	Control Tower	S&OE and Control Tower	Planning	Guidance of issues requiring attention by automatically generated alerts, based on user-defined rules or identified by cognitive capabilities of the system
94	Control Tower	S&OE and Control Tower	Planning	Information on events is integrated and taken into account
95	Control Tower	S&OE and Control Tower	Planning	Integrate hospital inventory & usage data for live visibility to customer usage pattern
96	Control Tower	S&OE and Control Tower	Planning	Integration and visualization of data along internal and external SC network partners in real-time and / or defined update frequencies.
97	Control Tower	S&OE and Control Tower	Planning	Interaction and share with other users
98	Control Tower	S&OE and Control Tower	Planning	Manual overriding of plans (for instance manual input of an absolute number or factor) and documentation planning activities (incl. notes)
99	Control Tower	S&OE and Control Tower	Planning	Necessary changes of replenishment plans are indicated (e.g. traffic light system)
100	Control Tower	S&OE and Control Tower	Planning	Performance of analysis on channels, segments, customers and inner-monthly plan changes
101	Control Tower	S&OE and Control Tower	Planning	Pre-configuration of reports, KPIs, alerts are available; these can be adjusted / customized to Olympus needs
102	Control Tower	S&OE and Control Tower	Planning	Providence of end-user definable reports, dashboards, scorecards etc.
103	Control Tower	S&OE and Control Tower	Planning	Review and assessment of sales plans and outcomes via graphical overview (Plan, as-is, deviation, root cause along cost, margin, revenue and volume), decision support and documentation in monthly steering process meetings
104	Control Tower	S&OE and Control Tower	Planning	Review and visualization of production parameters and performance like Capacity and production plans, As-is vs. to-be operational performance (i.e. production line utilization, throughput), E2E production lead times, Production order backlog
105	Control Tower	S&OE and Control Tower	Planning	Root cause, what-if, risk analyses, sensitivity analysis, simulations and optimizations
106	Control Tower	S&OE and Control Tower	Planning	Selection of the tracking scope, i.e. what demand (actual vs plan, market, customer, product, time) is to be tracked
107	Control Tower	S&OE and Control Tower	Planning	Self-learning abilities to use the inner-monthly deviations
108	Control Tower	S&OE and Control Tower	Planning	Single user interface for dashboard with ability to drill-down along defined hierarchies and to "jump" directly into relevant tool user interface
109	Control Tower	S&OE and Control Tower	Planning	Support of quick analysis in case of quality issues during goods entry booking.
110	Control Tower	S&OE and Control Tower	Planning	Support of review and assessment S&OE actions and outcomes via graphical overview (Plan, as-is, deviation, root cause along cost, margin, revenue and volume)
111	Control Tower	S&OE and Control Tower	Planning	Support of view S&OE metrics report with SC KPIs (as-is, target, deviations, root-cause, simulations of actions and scenarios)

112	Control Tower	S&OE and Control Tower	Planning	System able to automatically update ATP dates for customer service to advise customers
113	Control Tower	S&OE and Control Tower	Planning	The planning horizon covered by S&OE is considered frozen by IBP. There is a smooth handover between both processes (e.g. S&OE implications like inventory projections and alerts to IBP; guardrails to S&OE)
114	Control Tower	S&OE and Control Tower	Planning	Track of changes in demand (volume, price, timing) real-time and recognize patterns based on, e.g. seasonality, customer behavior, competitor behavior, supply constraints, other
115	Control Tower	S&OE and Control Tower	Planning	Track of deviations based on Production plan (in units per hour), Production schedule (in units per hour), Targeted inventory levels (in units/pcs), Real-time production data (in units per hour), real-time network data (in units/ days of coverage), Real-time stock levels (incl. safety stock levels) (in units/ days of coverage)
116	Control Tower	S&OE and Control Tower	Planning	True end-to-end visibility (no SBC & MBC view)
117	Control Tower	S&OE and Control Tower	Planning	Usage of workflows to manage and automate the demand planning process across multiple planners and organizations
118	Control Tower	S&OE and Control Tower	Planning	View status and follow-up on actions, workflow tasks
119	Control Tower	S&OE and Control Tower	Planning	Visualization and assessment customer related information like demand/ sales forecast, Customer order overview, Demand allocations, sales channel data, customer service levels
120	Control Tower	S&OE and Control Tower	Planning	Visualization of logistics network and capacity including Logistics orders/ status, Order delivery performance, Transportations/ E2E lead times, Logistic-supplier performance management, External/ Internal Logistics capacity and utilization, External parties information on shipments delays, Alerts and suggestion of solution options in case of exceptions
121	Control Tower	S&OE and Control Tower	Planning	Visualization of raw material and raw material supplier related information like Shipment and delivery tracking, Raw material capacity and inventory levels, Alerts and suggestion of solution options in case of alerts
122	Control Tower	S&OE and Control Tower	Planning	Visualization of supply chain network incl. Network/DC overview, Real time inventory levels and safety stock levels, Goods in transit. Warehouse and space constraints, Global track and trace of shipments, Alerts and suggestion of solution options in case of exceptions
123	Control Tower	S&OE and Control Tower	Synchronized Planning	Ability for end users to create customized ad-hoc views without code and reports along various data sets and to create customized metrics or KPIs to monitor. along various dimensions, units, and levels of forecast aggregation (e.g., by volume, price, cost, product hierarchies, geographical hierarchy, customers/customer hierarchy) and easily compare demand scenarios (incl. graphical form)
124	Control Tower	S&OE and Control Tower	Synchronized Planning	Ability to override plans (for instance manual input of an absolute number or factor) and documentation planning activities (incl. notes)
125	Control Tower	S&OE and Control Tower	Synchronized Planning	Existing Demand Planning Modules/Use Case that (1) Alerts on sales plan deviations, enable the users to perform root cause analysis and provide system recommended solutions to fix the problem that can be manually overridden (2) Generates a recalibrated margin optimized sales plan after adjusting for prices, volume distribution and product mix changes basis the tracked demand signals (3) Has AI/ML capability for prescriptive analytics to track the external demand drivers such as weather, competitor actions etc. and recommend changes (4) Has self learning capabilities to recalibrate the future sales plan based on current and past monthly deviations

126	Control Tower	S&OE and Control Tower	Synchronized Planning	Existing Inventory Planning Module/Use Case analyzes current inventory levels, historical demand, open orders, and inbound shipments to predict potential stockouts, and (2) provides an optimized recommendation for rebalancing inventory (accounting for supply/demand risk across alternate nodes), and (3) uses analytics to predict potential obsolescence issues and escalate to IBP
127	Control Tower	S&OE and Control Tower	Synchronized Planning	Existing Production Planning Module/Use Case that (1) assess potential risks to production (for example raw material availability), (2) evaluates supply constraints downstream for a production missprovides alerts for production miss against plans and evaluates supply availability impacts downstream, recommends inventory rebalancing as necessary, (3) review and visualization of production parameters and performance like Capacity and production plans, (4) provides insights on E2E production lead times
128	Control Tower	S&OE and Control Tower	Synchronized Planning	Existing SOE Module/Use case that (1) Identifies and alerts demand supply imbalances, enables root cause analysis and prescribes recommended resolution (2) Visualize cost and financial impact along the E2E supply chain for as-in situation against resolution alternatives to empower decision making
129	Control Tower	S&OE and Control Tower	Synchronized Planning	Existing Supply Planning Module/Use Case that (1) Identifies and alerts for current and projected supply excess/shortages and missing / incorrect forecasted demand, enables root cause analysis and visualizes the financial impact on selecting different alternative supplies to resolve supply shortage issues (2) Tracks and trace open POs, ASNs and near real time visibility into order schedule (3) PO expediting / de-expediting quantity changes (what if scenarios)
130	Control Tower	S&OE and Control Tower	Synchronized Planning	Self-learning abilities to improve optimization capabilities (including use the inner-monthly deviations)
131	Control Tower	S&OE and Control Tower	Synchronized Planning	Consignment Inventory / VMI is stracked and excess / shortages are identified and alerted
132	Control Tower	S&OE and Control Tower	Synchronized Planning	Current and Projected Inventory Excess & Obsolete at all nodes of Supply Chain are identified and escalated to IBP
133	Control Tower	S&OE and Control Tower	Synchronized Planning	Current and Projected Inventory Stock-out at all nodes of Supply Chain are identified and escalated to IBP
134	Control Tower	S&OE and Control Tower	Synchronized Planning	Current and projected supply excess/ shortage are identified and escalated to IBP
135	Control Tower	S&OE and Control Tower	Synchronized Planning	Demand and Supply imbalance are identified and alerted
136	Control Tower	S&OE and Control Tower	Synchronized Planning	Demand Driven supply chain allowing for real time visibility on demand supportability throughout the network in 0-3 months horizon and trade-off impact on schedule breaks/ change in replenishment plan
137	Control Tower	S&OE and Control Tower	Synchronized Planning	Incorrect forecast assumptions / model are identified and escalated to IBP
138	Control Tower	S&OE and Control Tower	Synchronized Planning	Missing customer forecast, drivers, SKU attributes are indentified and alerted
139	Control Tower	S&OE and Control Tower	Synchronized Planning	Missing or incorrect forecasted demand, part description, kit requirements etc. are indentified and alerted
140	Control Tower	S&OE and Control Tower	Synchronized Planning	Schedule attainment / plan adherence is tracked, alerted and escaleted to IBP
141	Control Tower	S&OE and Control Tower	Synchronized Planning	Schedule break: Orders / order changes in frozen zone are identified and alerted

Project Request - Digital SC Planning & CT Transformation

Annex B - Business and IT Requirements (non functional) - Business

ID	Category	Subcategory	Description
1	Project Management	Stage Gate	- Include the following stage gates as additional gates to suppliers' proposal: 1) Process review - as part of the 'fit-gap' exercise conduct a cross functional process review of current vs future process and alignment on RACI 2) Build review - prior to UAT cross functional representatives to simulate 'day in life' to test the system build
2	Project Management	Dependencies	- Manage dependencies with other projects for integrated approach, regardless of supplier's direct involvement in the dependent project(s)
3	Training	Approach/ Delivery	- Deliver end user training and create training material ready made for re-usable later internal TTT sessions, include classroom (ILT) training and Mandatory (ELT)
4	Training	Approach/ Delivery	- Deliver (regional) process owner training and create training material ready made for re-usable later internal TTT sessions, include classroom (ILT) training and Mandatory (ELT)
5	Training	Content	- Develop a detailed trainer guideline including structure, content, interactions for Olympus trainers to be fully able to conduct end-user training. Provide training on knowledge across governance, process and KPIs, and not only focused on the process execution using system.
6	Training	Content	- Provide content in PPT and SCORM 1.2 format to enable upload of the content into Olympus LSM Platform
7	Training	Learning language (Material)	- Provide local language training material (English, Japanese) where requested by Olympus. Note: Additional languages may required ad-hoc
8	Training	Learning language (Delivery)	- Provide local language training delivery (English, German, Japanese, Chinese) where requested by Olympus. Note: Additional languages may be required ad-hoc
9	Training	Learning portal and tracking	- Utilise SucessFactors LMS for training content storage after trainings conducted.
10	Training	Guidebook to add/ remove Legal Entities	- Create a process-related guide document to add new entity for carve outs and acquisitions from M&A Activities
11	Business Hypercare	Expected Lead Time for service restoration	- Adhere to expected restoration leadtime by classification of each issue
12	Business Hypercare	Support expectations	- Provide 24/7 available Post Go Live support to handle, escalate and solve system issues based on SLA
13	Business Hypercare	Hypercare scope	- Provide a Hypercare team to support user enquiries for process implementation
14	Business Hypercare	Hypercare duration	- Extend the Hypercare duration to a minimum of 3 planning cycles for each implemented use case for pilot for digital planning
15	Process design	Documentation	- Utilise Olympus' BPMN Tool to document L4 and L5 process design
16	Test	UAT Scenario creation	- Best Practices / Coaching / Templates for UAT Scenarios creation to be provided by SI, Test coordination by SI, Olympus IT to create UAT test scripts and Business to create scenarios