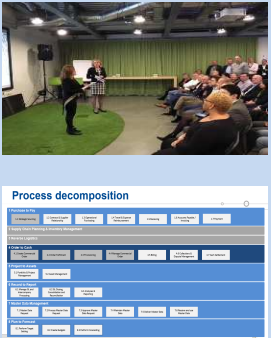
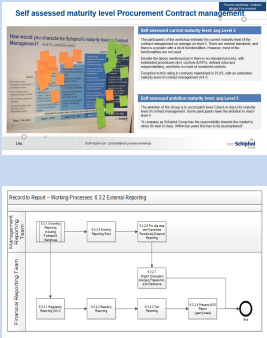

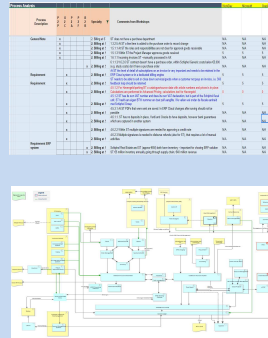
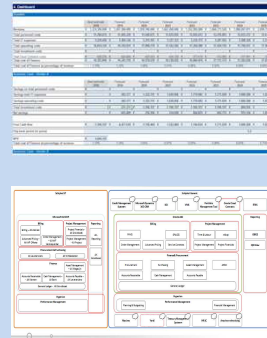


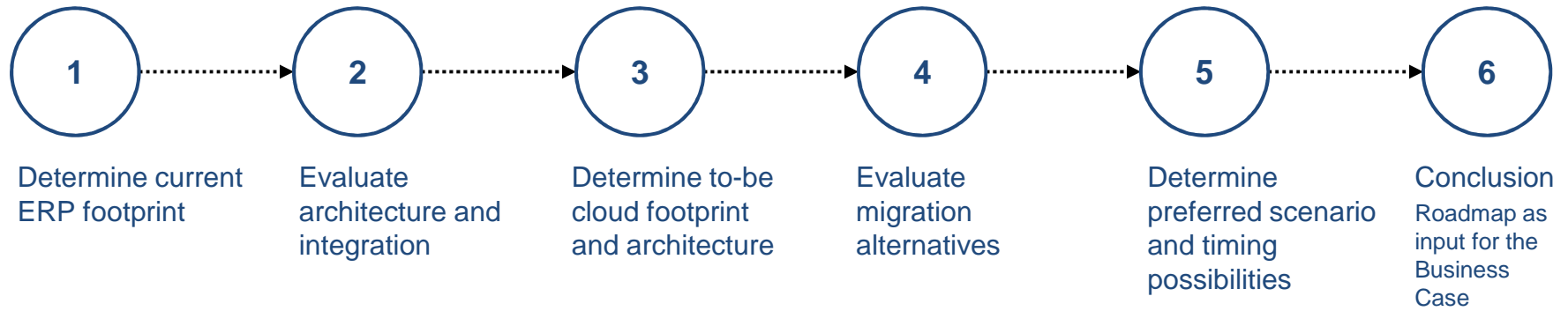
Roadmap

Digital Finance Program
Draft document for discussion
22 March 2018

Starting point for Business Case and Roadmap

Kick off & preparation	Workshops	Consolidation workshop	Technology Fit	Business Case Roadmap																																																																						
 <p>Process decomposition</p> <table border="1"> <thead> <tr> <th>Process</th> <th>Sub-process</th> <th>Owner</th> <th>Start</th> <th>End</th> <th>Frequency</th> <th>Priority</th> </tr> </thead> <tbody> <tr> <td>Order to Cash</td> <td>Order Management</td> <td>Marketing</td> <td>2023-01-01</td> <td>2023-03-31</td> <td>Weekly</td> <td>High</td> </tr> <tr> <td>Order to Cash</td> <td>Order Processing</td> <td>Finance</td> <td>2023-01-01</td> <td>2023-03-31</td> <td>Weekly</td> <td>High</td> </tr> <tr> <td>Order to Cash</td> <td>Order Delivery</td> <td>Logistics</td> <td>2023-01-01</td> <td>2023-03-31</td> <td>Weekly</td> <td>High</td> </tr> <tr> <td>Order to Cash</td> <td>Order Invoicing</td> <td>Finance</td> <td>2023-01-01</td> <td>2023-03-31</td> <td>Weekly</td> <td>High</td> </tr> <tr> <td>Order to Cash</td> <td>Order Collection</td> <td>Finance</td> <td>2023-01-01</td> <td>2023-03-31</td> <td>Weekly</td> <td>High</td> </tr> </tbody> </table>	Process	Sub-process	Owner	Start	End	Frequency	Priority	Order to Cash	Order Management	Marketing	2023-01-01	2023-03-31	Weekly	High	Order to Cash	Order Processing	Finance	2023-01-01	2023-03-31	Weekly	High	Order to Cash	Order Delivery	Logistics	2023-01-01	2023-03-31	Weekly	High	Order to Cash	Order Invoicing	Finance	2023-01-01	2023-03-31	Weekly	High	Order to Cash	Order Collection	Finance	2023-01-01	2023-03-31	Weekly	High	 <p>Self assessed maturity level Procurement Contract management</p> <p>Records Report - Working Process 4.2.2 External Reporting</p>		 <table border="1"> <thead> <tr> <th>System</th> <th>Fit</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>System A</td> <td>High</td> <td>95</td> </tr> <tr> <td>System B</td> <td>Medium</td> <td>75</td> </tr> <tr> <td>System C</td> <td>Low</td> <td>55</td> </tr> </tbody> </table>	System	Fit	Score	System A	High	95	System B	Medium	75	System C	Low	55	 <table border="1"> <thead> <tr> <th>Process</th> <th>Start</th> <th>End</th> <th>Priority</th> </tr> </thead> <tbody> <tr> <td>Order to Cash</td> <td>2023-01-01</td> <td>2023-03-31</td> <td>High</td> </tr> <tr> <td>Order to Cash</td> <td>2023-04-01</td> <td>2023-06-30</td> <td>Medium</td> </tr> <tr> <td>Order to Cash</td> <td>2023-07-01</td> <td>2023-09-30</td> <td>Low</td> </tr> </tbody> </table>	Process	Start	End	Priority	Order to Cash	2023-01-01	2023-03-31	High	Order to Cash	2023-04-01	2023-06-30	Medium	Order to Cash	2023-07-01	2023-09-30	Low
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<ul style="list-style-type: none"> • Introduction of the Digital Finance Program • Prepare workshop materials 'to be' process maps for R2R, P2F, O2C*, P2P*, P2A, MDM processes <p><i>*including Contract Management</i></p>	<ul style="list-style-type: none"> • Process maps per process in scope, including: <ul style="list-style-type: none"> • Responsible department • Input/output systems • Main gaps between current and 'to be' best in class processes and improvement potential 	<ul style="list-style-type: none"> • Consolidation workshop with all SPoCs: <ul style="list-style-type: none"> • Share key challenges and key requirements • Mutually agree on full end-to-end processes including handover moments 	<ul style="list-style-type: none"> • Detailed solution fit analysis for 3 ERP Cloud solutions • Technology fit is based on results process workshops (with defined processes in scope, including Billing, EPM, MDM and Risk) • Deep dive Yardi • Deep dive Billing 	<ul style="list-style-type: none"> • Business case, based on TCO calculations, implementation costs and saving potential • Refined roadmap for implementation including key milestones and go/no-go decisions 																																																																						

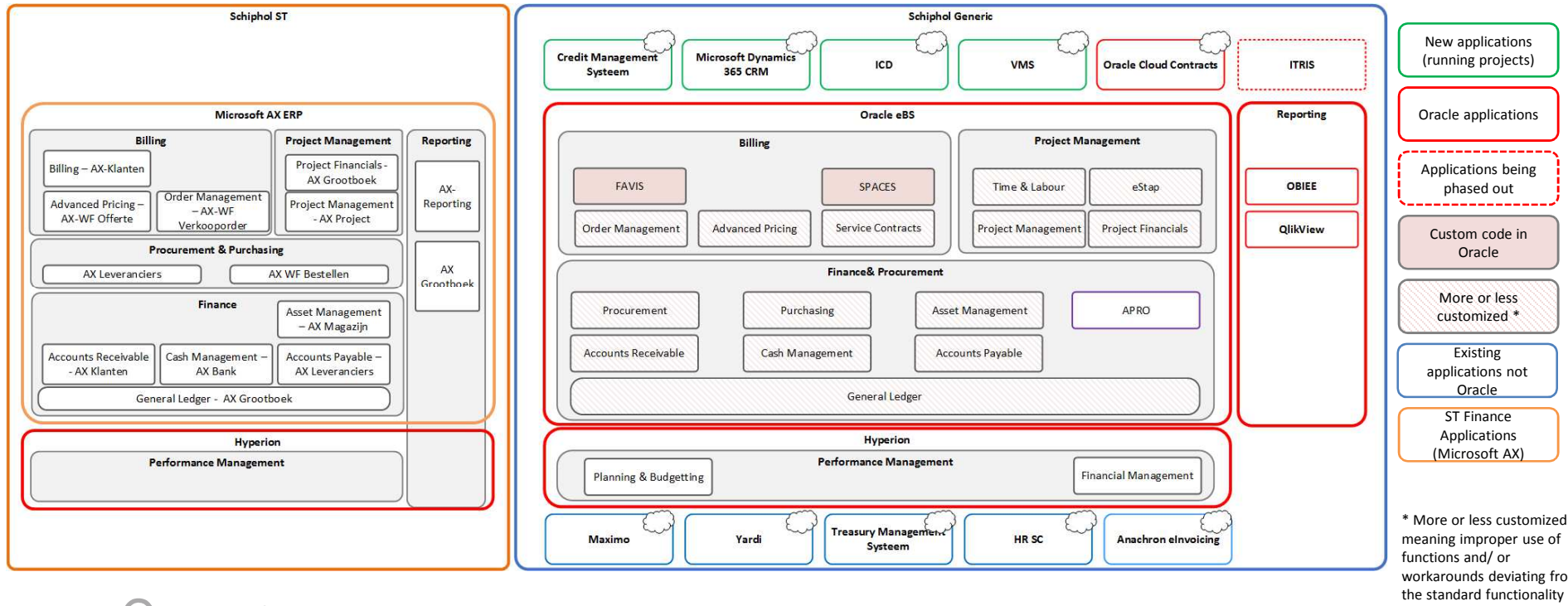
Roadmap elements



Current situation: Roadmap and implementation drivers

- Current Microsoft AX solution for ST is out of support, this situation is not sustainable and AX needs to be replaced on short term.
- Biggest functional pain points are currently in the area of lacking insight in Contract exploitation, automated controls, manual interfaces, Master Data Management and unclear roles and responsibilities.
- Yardi separate system, covering, next to the Property Management specific functionalities, also the SRE Finance and Procurement processes. Assumption for now is that Yardi will remain as is, as a separate ERP for SRE.
- Current Oracle eBS support contract with Ordina will end in August 2018. A tender procedure has been started to extend support.
- The current Oracle eBS implementation has quite some customisations based on Schiphol specific processes or features. This causes the TCO to be relatively high and exposes vulnerabilities in the processes.
- Current Order2Cash, Procurement2Pay, Plan2Asset and Record2Report processes are inefficient and need to be simplified and standardized. Available functionality in the eBS applications is not always fully used.
- Multiple ongoing projects that will potentially impact the ERP cloud project (e.g. eInvoicing, Credit Management System,..) These dependencies need to be investigated upfront and monitored closely during project execution.
- The application landscape at Schiphol is complex, with quite some redundant functionality.

Current ERP footprint: Finance (Oracle eBS) and ST (Microsoft AX) - September 2017*



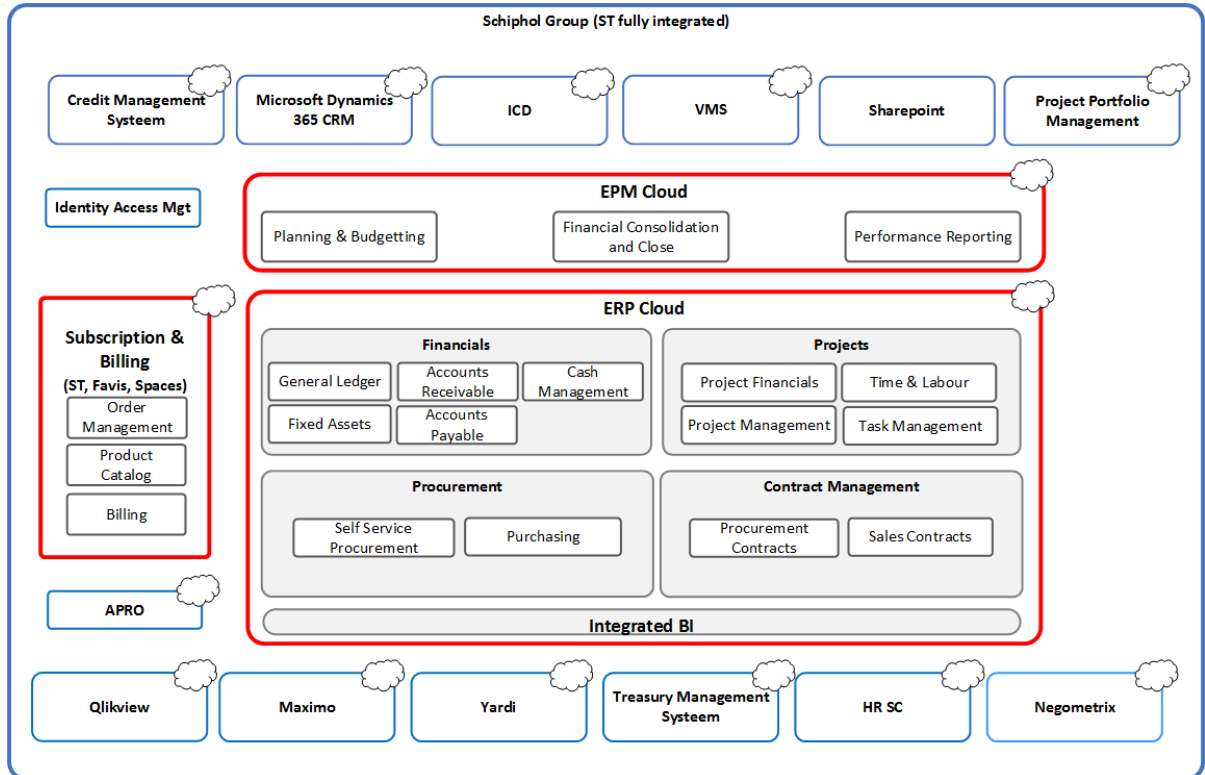
* AS-IS architecture as received from Schiphol Solution Architecture

Evaluate required integrations in target situation

- Required interfaces have been identified and classified, based on our experience, as high, medium or low complexity
- This interface list and classification has been validated with Functional Maintenance and was the basis to estimate the integration effort as input for the Business Case

IF number	Inbound/ Outbound	Source	Target	needed for:	H/M/L
1	Inbound	CISS	Billing	SHG	H
2	Inbound	Billing	ERP Cloud	SHG	L
3	Inbound	AIS Fudura	AR (ERP Cloud)	SHG	L
4	Inbound	ISEM	AR (ERP Cloud)	SHG	L
5	Inbound	Concessie beheer systeem	AR (ERP Cloud)	SHG	L
6	Inbound	TORPA	AR (ERP Cloud)	SHG	L
7	Inbound	VIP CRM Reserveringen Systeem	AR (ERP Cloud)	SHG	L
8	Inbound	Privium ledenadministratie	AR (ERP Cloud)	SHG	L
9	Inbound	ABN AMRO	APRO	SHG	L
10	Inbound	APRO	AR (ERP Cloud)	SHG	L
11	Inbound	Treasury Management Systeem	GL (ERP Cloud)	SHG	L
12	Inbound	MS Dynamics CRM	ERP Cloud	ST	M
13	Inbound	Credit Management Systeem	ERP Cloud	SHG	M
14	Inbound	IBM Control Desk	ERP Cloud	ST	M
15	Inbound	IBM Control Desk	ERP Cloud	SHG	M
16	Inbound	Oracle Enterprise Cloud Contracts	ERP Cloud	SHG	M
17	Inbound	HR SC	ERP Cloud	SHG	M
18	Inbound	HR SC	EPM	SHG	M
19	Inbound	Maximo	ERP Cloud	SHG	H
20	Inbound	Yardi	ERP Cloud	SHG	M
21	Inbound	Yardi	ERP Cloud	SHG	M
22	Inbound	Spaces Skidata	Billing	SHG	H
23	Inbound	VMS	ERP Cloud	SHG	H
24	Inbound	Qlickview	EPM	SHG	L
25	Inbound	IAM	ERP Cloud	SHG	M
26	Outbound	APRO	ABN AMRO	SHG	L
27	Outbound	ERP Cloud	APRO	SHG	L
28	Outbound	ERP Cloud	Yardi (xls)	SHG	M
29	Outbound	GL (ERP Cloud)	EPM	SHG	M
30	Outbound	FA (ERP Cloud)	EPM	SHG	H
31	Outbound	Projects (ERP Cloud)	EPM	SHG	H
32	Outbound	ERP Cloud	MS Dynamics CRM	ST	M
33	Outbound	ERP Cloud	Credit Management Systeem	SHG	M
34	Outbound	ERP Cloud	Oracle Enterprise Cloud Contracts	SHG	M
35	Outbound	AP (ERP Cloud)	HR SC	SHG	M
36	Outbound	ERP Cloud	Maximo	SHG	H
37	Outbound	ERP Cloud	Spaces Skidata	SHG	M
38	Outbound	ERP Cloud	Billing	SHG	L
39	Outbound	ERP Cloud	IBM Control Desk	ST	M
40	Outbound	ERP Cloud	IBM Control Desk	SHG	M
41	Outbound	ERP Cloud	VMS	SHG	M

Target situation: Integrated Cloud ERP for ST and Schiphol Group



Migration scenarios: 3 different approaches

- When moving from the current to the target situation, a few different approaches can be taken, based on phasing of entities within Schiphol (Schiphol Telematics and Schiphol Group), or phasing based on functionality
- This document describes 3 different approaches to move to the Cloud for Schiphol, taking the current architecture as a starting point. The 3 different scenarios described are:
 1. Big bang: migrating the full current solution to Cloud
 2. Phased: dividing the migration into 2 different phases based on ST and Schiphol
 3. Phased: dividing the migration into 3 different phases based on functionality clusters
- In the next slide, the 3 different approaches are compared using a number of viewpoints

Scenario comparison

 = relative ranking

	Scenario 1 Big Bang	Scenario 2 Phased: ST first, Schiphol second	Scenario 3 Phased: Clustered per functionality	Comments
Complexity	Red	Yellow	Yellow	Big Bang means high level of complexity within a limited timeframe.
Integration effort	Green	Green	Red	Big bang strategy minimizes the need for temporary interfaces with legacy ERP
Ease of implementation	Yellow	Green	Green	A phased approach limits the pressure on the organization. On the other hand, momentum might be lost after phase 1
Costs	Green	Yellow	Red	Big bang offers implementation efficiency, no temporary workarounds needed. Functionality approach requires investments in temporary interfaces.
People and Change	Red	Yellow	Yellow	Pressure on organization in a big bang approach requires focus on change management. Scenario 3 requires different approach in operation (period close)
'Minimizing' Risk	Red	Green	Green	A phased approach reduces the project risk as well as the risk of a disturbed business continuity .
Expected Benefits	Green	Yellow	Yellow	In Big Bang scenario, the benefits are realized earlier.

Scenario comparison: conclusion

Based on the viewpoints addressed in the previous slide, scenario 2 seems the preferred scenario for moving to the cloud:

- Current support issue with MS AX addressed quickly in the process
- Lower in risk because phasing in entities (ST functioning as a 'Pilot')
- Minimal effort and investment in temporary interfaces
- Pressure on organization more manageable when using Big Bang approach
- Complexities of the billing processes are split between 2 phases, which makes them more manageable

Attention point: to be able to decommission the MS AX solution, all functionalities that are currently covered should be addressed in the cloud solution (or elsewhere), including the current supply chain processes.

Scenario 2, where ST (incl. billing) will move to the cloud first and Schiphol will move in phase 2

Phase 1 – Move ST to ERP Cloud target solution

Phase 1: Move ST to the ERP Cloud

- ST will move first to ERP cloud replacing all MS AX finance and procurement functionality
- **SHG requirements need to be incorporated in the blue print phase**, in order to ensure a standard and integrated process.
- Current interfaces with MS AX in the finance and procurement domain, will have to be redesigned for future cloud solution.
- Billing solution will be defined and implemented for ST. Same solution will be implemented at Schiphol (including Favis and Spaces) in phase 2.
- Opportunity to include Supply Chain functionality in phase 1

Phase 2 – Include Schiphol into ERP Cloud

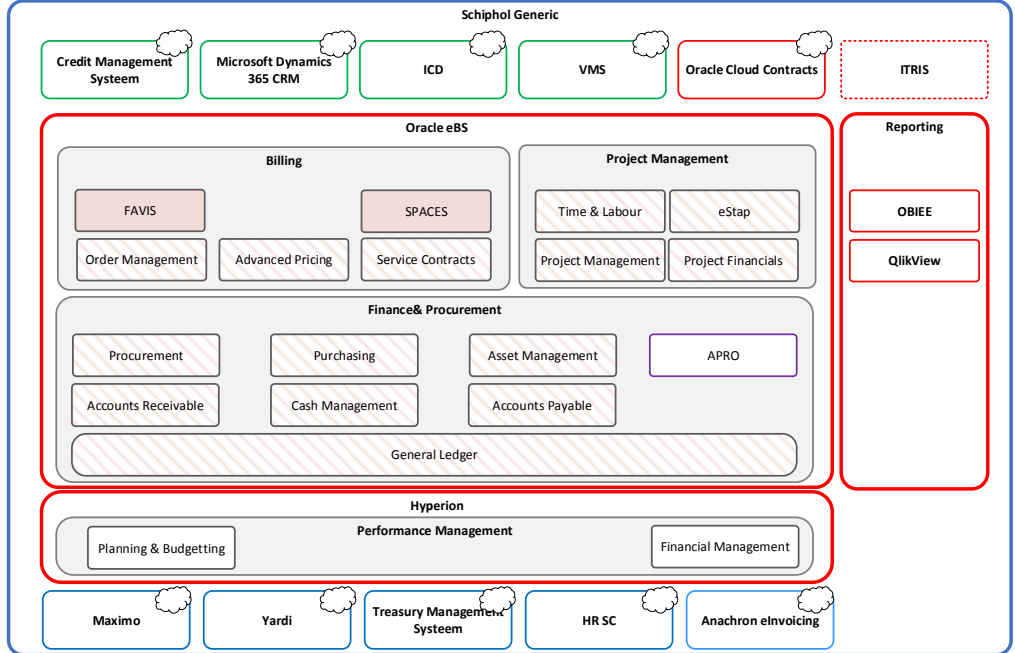
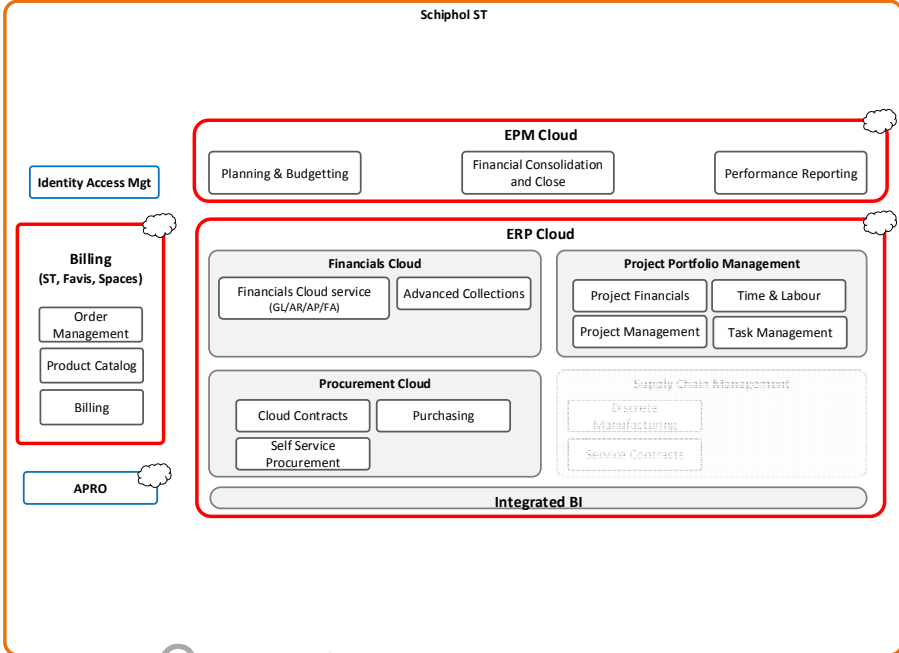
Phase 2: Move Schiphol to the ERP Cloud

- Schiphol will move ERP cloud replacing all Oracle eBS and EPM functionality
- Existing blue print will be used as much as possible to roll out solution to Schiphol group.
- Current interfaces with Oracle eBS, will have to be redesigned for future cloud solution.
- Billing solution that has been defined and implemented during phase 1 will be implemented at Schiphol (including Favis and Spaces)

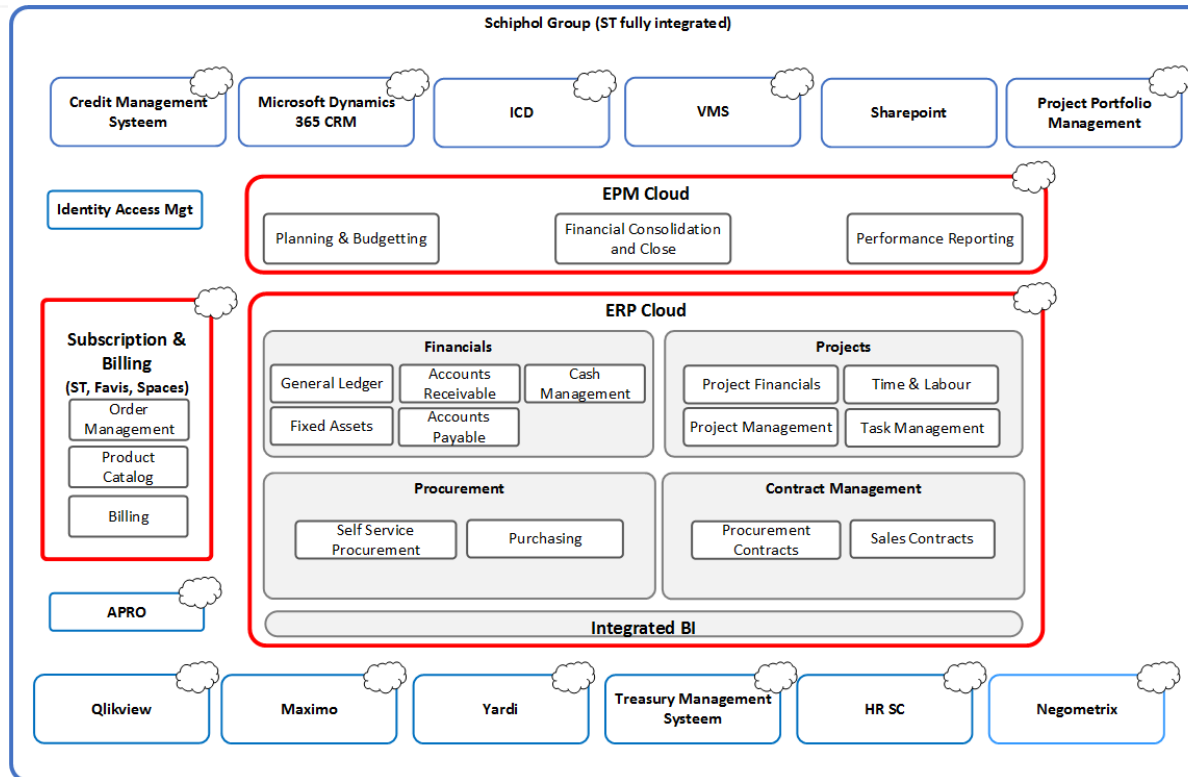
Phase 1: Move ST to ERP Cloud, SHG remains on legacy

End of Phase 1: ST moved to target landscape..

... and SHG remains on legacy.



Phase 2: Move also SHG to ERP Cloud to realize one integrated solution

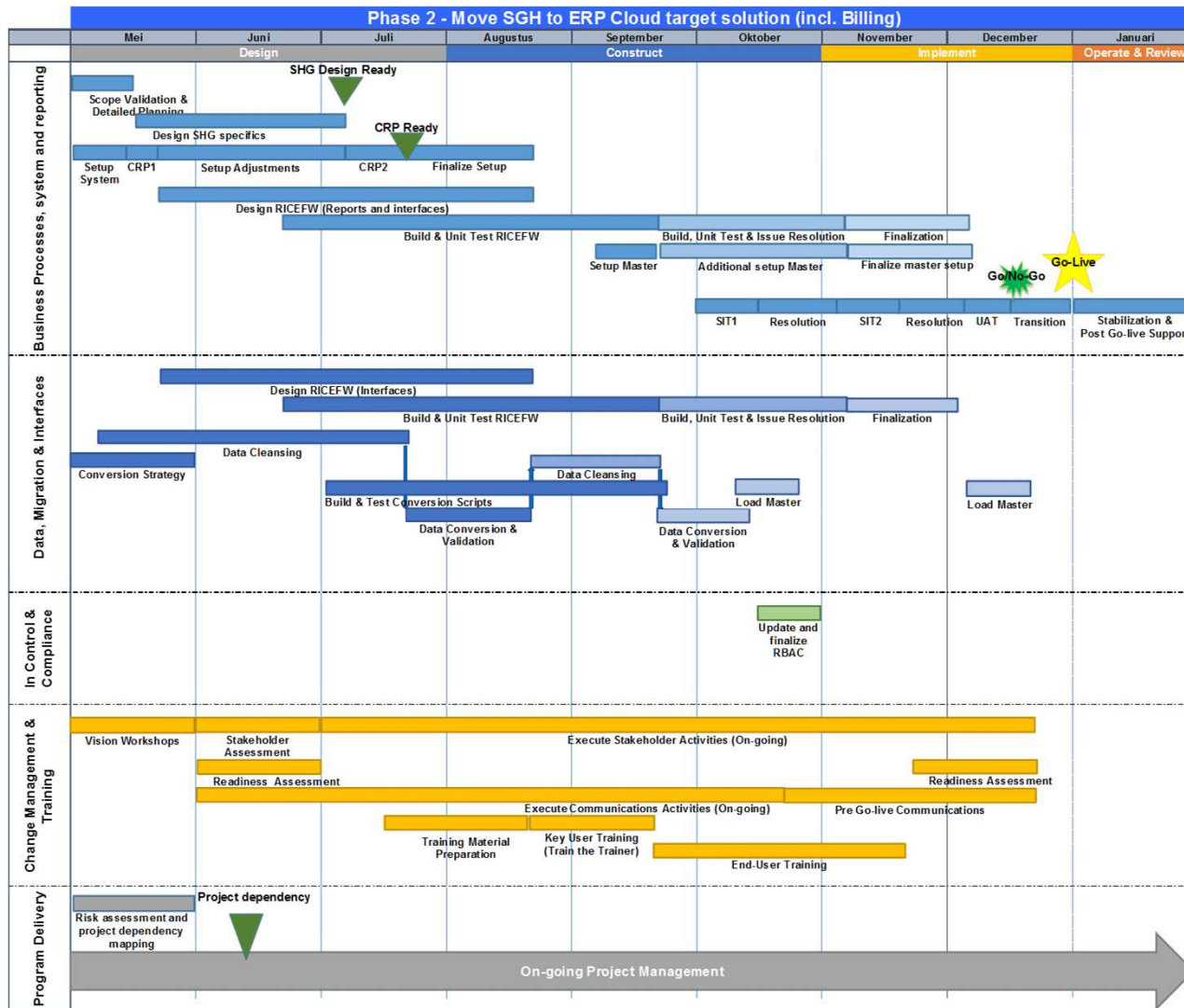


In Scope

Out of Scope

Cloud implementation characteristics

- Implementing standard and best practice processes require a different implementation approach
- Aggressive planning and timelines based on standard processes
- Integration often based on 'standard' connectors
- Quick and early prototyping
- Users are involved early in the process: less emphasis on training
- Change management important component in implementation but often underestimated



Planning differentiators

- High level planning is for reference cloud system
- Lead times may differ based on choice of software supplier (for example for integration)
- High risk components of the implementation (such as integration and billing) should be addressed in the programme as early as possible

Next steps

- Finalize scope and requirements for ERP cloud tender
- Create user cases for all business critical and/or Schiphol specific processes, as input for the Proof-Of-Concept during the ERP cloud selection
- Select cloud vendor and implementation partner
- Create and validate final architecture
- Define and validate detailed project planning
- Align Master Data between ST and SHG and start data cleansing activities
- Define project governance and appoint process owners to speed up decision making

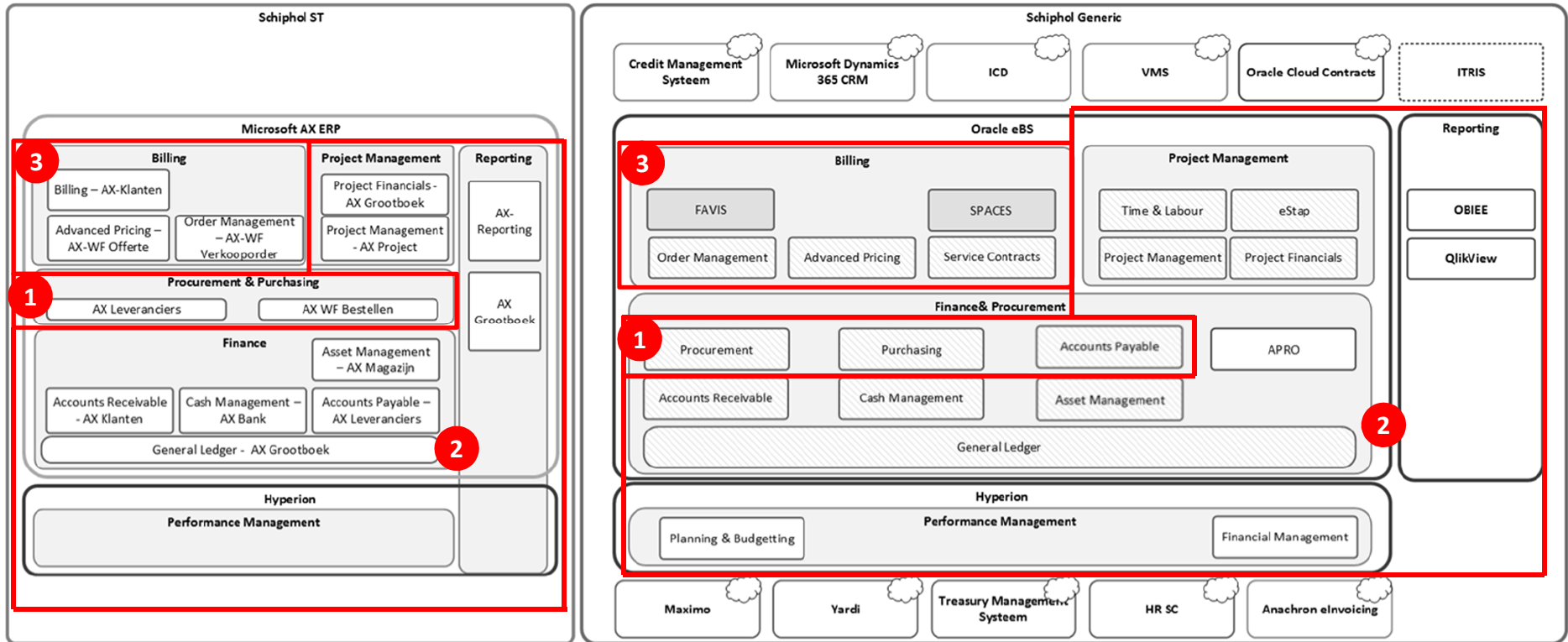


Appendix

Functionality clusters

- Functionality in current Schiphol landscape can be clustered as follows:
 1. Procurement and Purchasing
 2. Finance, Project Management, Performance Management and Reporting
 3. Billing

Functionality clusters



Scenario 1: Big Bang

- Migrating full landscape to cloud.
- Pro: only 1 implementation project, no loss of momentum after first phase. No temporary interfaces necessary between ERP Cloud and legacy Oracle EBS and Microsoft AX.
- Con: complexity, extra emphasis on change management needed due to changes in processes

Scenario 2: Phased, ST first Schiphol second

- Divide the migration into 2 phases:
Phase 1: migrate ST to the cloud
Phase 2: migrate Schiphol Group to the cloud
- Pro: less pressure on the organization due to phased approach, while the need for temporary interfaces between ERP Cloud and legacy Oracle ERP is limited
Addresses the out of support issue with Microsoft AX
- Con: possible loss of momentum after phase 1, less implementation efficiency then in the big bang scenario

Scenario 3: Phased per functionality cluster

- Based on functionality clusters, divide the migration into 3 phases:
 - Phase 1: migrate Purchasing to the cloud
 - Phase 2: migrate Billing to the cloud
 - Phase 3: Migrate Finance incl. reporting to the cloud
- Pro: less pressure on the organization due to phased approach
- Con: possible loss of momentum after phase 1 or 2, less implementation efficiency then in the big bang scenario, relatively high number of temporary interfaces between legacy (Oracle EBS and Microsoft AX) and ERP Cloud