Digital Finance Program

Sounding Board – 13 February

Updated version, including comments Sounding Board meeting

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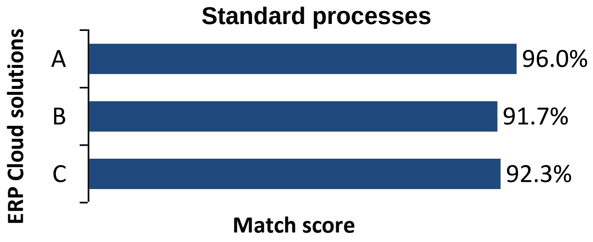
Schiphol Group

1. Conclusion

1. Conclusion - Technology Fit



Vendor: A		
Standard Process Assessment	4.8	96.0%
Specialty Assessment	3.8	75.7%

Vendor: B		
Standard Process Assessment	4.6	91.7%
Specialty Assessment	3.5	70.2%

Vendor: C		
Standard Process Assessment	4.6	92.3%
Specialty Assessment	3.5	70.7%

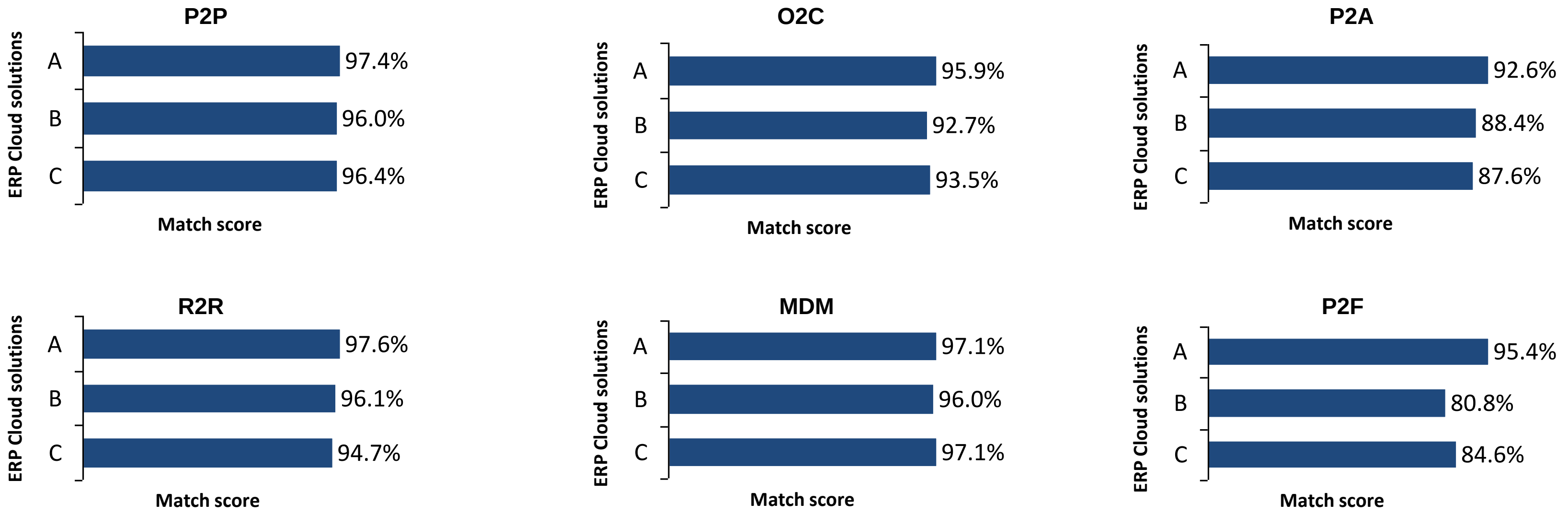
Vendor Assessment:
Mature, complete and leading finance and procurement solution for large and mid-size companies, matching Schiphol's processes in scope. Additional, relevant functional modules available in the vendor (cloud) suite. Pure SaaS solution, multi-tenant, with latest technology available. Strong footprint in Netherlands, with proven references and local support and expertise (including partner eco-system – for implementation support) available.

Vendor Assessment:
A pure cloud vendor, build from scratch with latest technology. Very complete Finance and Procurement functionality for large and mid-size companies, matching the Schiphol processes in scope. All functionality build into the ERP Cloud solution. Relative new Finance solution vendor in NL, with growing number of references and local partner eco-system (build on a strong global footprint). Excellent client feedback and very active user-community.

Vendor Assessment:
Relative new pure SaaS solution for Finance, including latest cloud technology. Broad and rich functionality, matching Schiphol's requirements. Client/references in NL for ERP Cloud finance solution limited but growing. Leading vendor, with strategy and investments focused on cloud, additional business modules available in the (cloud) suite. Strong local support and expertise in NL available.

1. Conclusion - Technology Fit

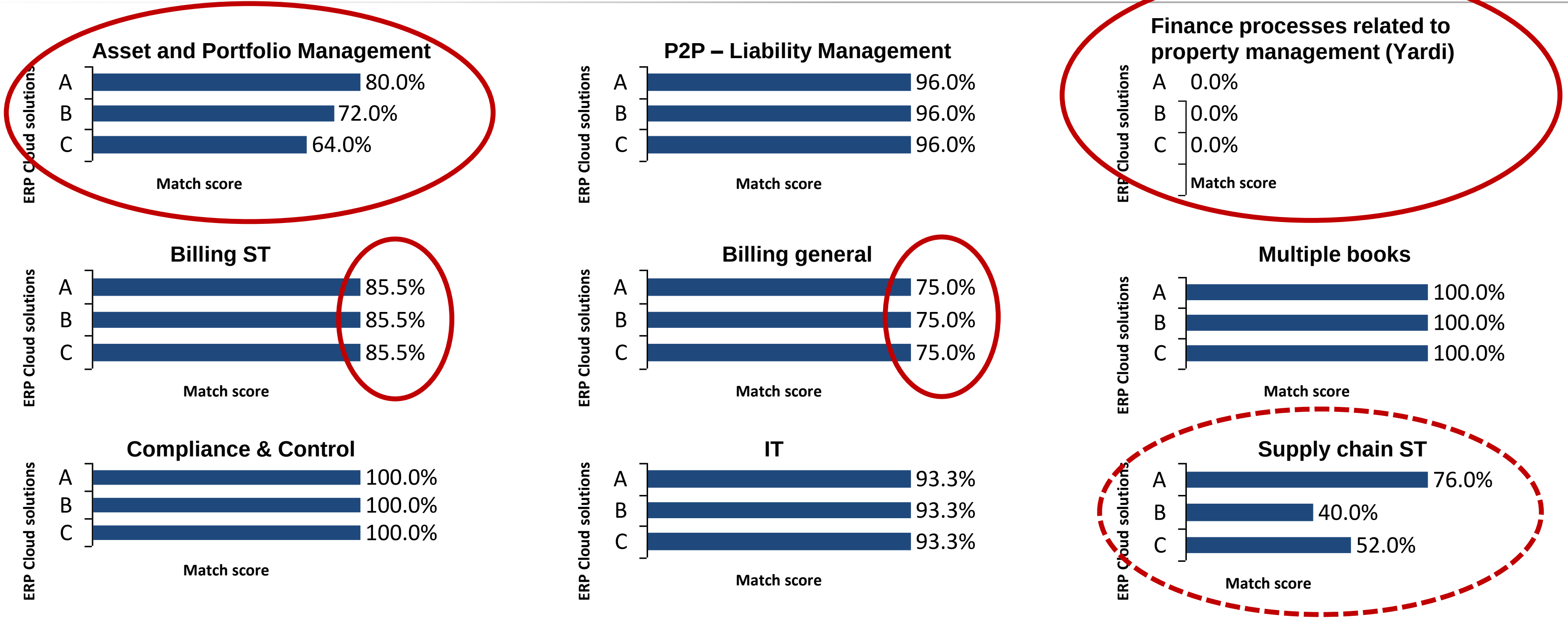
ERP Cloud solutions matching standard processes



- All considered ERP Cloud solutions can support the standard and validated processes for Schiphol
- There is a relative small difference between the solutions in the standard processes
- Detailed EPM functionality in the ERP Cloud solution or vendor-suite provides better support of some of the standard processes (P2A, R2R and P2F)

1. Conclusion - Technology Fit

ERP Cloud solutions matching specialties



- The considered ERP Cloud solutions seem to lack standard functionality to support some specific Schiphol specialties:
  - Asset and Portfolio Management
  - Finance processes related to property management (Yardi)
  - Billing (FAVIS, Spaces, ST)
- These areas need deep dives for better assessment of standard ERP Cloud possibilities and possibly alternative scenarios and solutions
- ERP Cloud solutions are limited in supporting supply chain processes at ST, especially automated provision (future demand) is a challenge

1. Next steps (1/3)

Suggested deep dives:

- **Billing:** From standardization perspective Schiphol prefers one standard billing solution that can support billing in all revenue streams. The complex pricing models of FAVIS, Spaces* and ST billing require a deep dive to assess if and how this can be handled with standard pricing in ERP Cloud or whether a billing engine solution is needed. During the deep dive we will also assess how the billing process can be simplified and standardized, mainly in FAVIS, Spaces and ST.

  Possible scenario's are:

  1. Standard pricing functionality in ERP Cloud is capable of handling the requirements
  2. Billing engine solution:
     a) as part of the vendor suite, only A has this option available
     b) separate billing engine solution from a third party vendor (i.e. not A,B or C) to be integrated with the new ERP Cloud
  3. Split the billing process to keep the calculation and invoicing in existing tools (except ST) and import the invoice lines to ERP Cloud for further financial processing

  **Requirements of Spaces is yet to be evaluated for Technology Fit exercise*

1. Next steps (2/3)

Suggested deep dives:

- **Finance processes related to property management (Yardi):** SRE finance processes have very specific (real estate) characteristics, that can not be supported by standard ERP Cloud. It is currently captured in Yardi on a detailed operational level interfaced to ERP system.
  A deep dive is needed to assess the pros and cons of the possible scenario's for SRE finance process from DFP perspective, taking into account the implications on the property management process.
  The possible scenarios are:
  1. Leave all finance processes SRE in Yardi and develop an interface on GL level to the new ERP Cloud. Currently the interface is on detailed operational level, in this scenario this will be changed to a financial journal level.
  2. Split the finance processes between Yardi and ERP Cloud. Calculation of the invoice lines (billing engine) for the O2C process in Yardi, while actual invoicing and collections is done in ERP Cloud (under the condition of possible de-coupling in Yardi). For the P2P process the purchase orders will be transferred from Yardi to ERP Cloud and accounts payable will be handled in ERP Cloud.
  3. A new property management tool:
     a) from the vendor suite – only A offers a property manager module but this is not on Cloud yet. B and C don't offer this functionality
     b) a new property management solution from a third party vendor (i.e. not A,B or C) to be integrated with the new ERP Cloud

  A combination of scenarios is possible and will be detailed in the Business Case and Roadmap phase.

- **P2A:** "Create planned project, planned cash flow and planned asset(s) and its projected balance sheet (asset base) and P&L effects (kosten in samenhang met investering 'kismi' and depreciation), **at the level of the individual planned project and its planned asset, including allocation (requirement WLV)"** is a Schiphol specific requirement. The current way of working (non-standard process, using multiple applications) can be supported by new ERP Cloud and complementary Cloud applications, similar like it is done now in Hyperion.
  A deep dive is required to assess how this process can be simplified and standardized, supported by standard ERP Cloud (and complementary solutions). This includes challenging (a) the interpretation of the WLV requirements and (b) required level of detail for internal controlling, as input of possible simplification and standardization of the process. The result needs to be assessed against standard ERP Cloud.

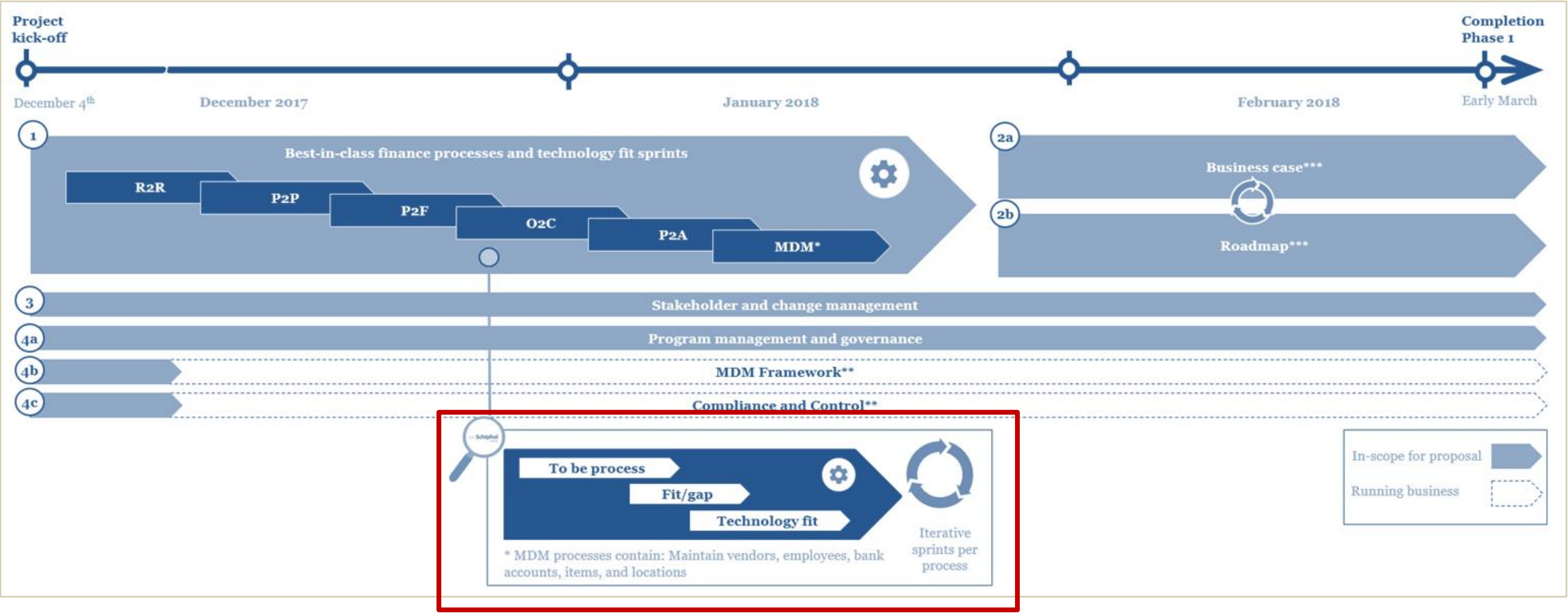
1. Next steps (3/3)

Business Case & Roadmap

- Continue with the results of Technology Fit and suggested deep dives as input for Business Case and Roadmap
- Develop a Business Case and Roadmap

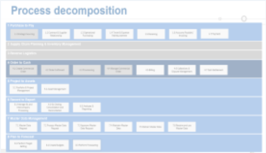
2. Scope & Approach

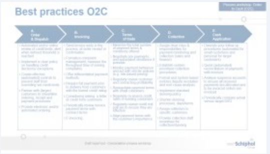
2. Technology Fit within DFP



2. Starting point Technology Fit

Preparation workshops

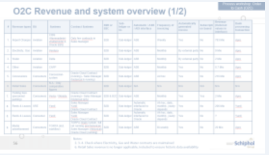




- Standardized best practice processes were used as input for the workshops
- Prepare workshop materials ‘to be’ process maps for R2R, P2F, O2C*, P2P*, P2A, MDM processes

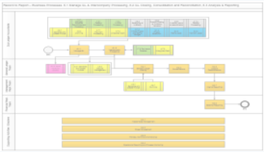
**including Contract Management*

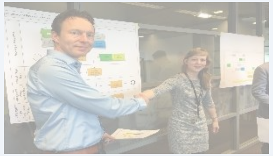
Workshops



- Process maps per process in scope, including:
  - Responsible department
  - Input/output systems
  - Main gaps between current and ‘to be’ best in class processes and improvement potential

Consolidation workshop





Consolidation workshop with all SPoCs:

- Share key challenges and key requirements
- Mutually agree on full end-to-end processes including handover moments

Technology Fit

- Detailed solution fit analysis for 3 ERP Cloud solutions
- Technology Fit is based on results process workshops (with defined processes in scope, including Billing, MDM, and Compliance & control)

2. Steps in the Technology Fit process

1. Results of functional workshops as starting point
2. Listed generic process requirements
3. Identified Schiphol ‘specialties’
4. Conducted Technology Fit meetings around ‘specialties’
5. Assessment:
   A. Standard processes
   B. Specialties
   C. Vendor Requirements
6. Conclusion Technology Fit as input for Business Case(s) and Roadmap(s)

2. Technology Fit elements

Standard Processes

We have performed a detailed Technology Fit assessment, leverage the following best practice to-be Finance & Procurement processes as defined in the high level design To-Be processes.

The following processes are in scope for the standard process assessment:

- Purchase to Pay (P2P)*
- Order to Cash (O2C)*
- Project to Asset (P2A)
- Record to Report (R2R)
- Master Data Management (MDM) processes
- Plan to Forecast (P2F)

**Including Contract Management*

Specialties

During the workshops we have distinguished functionalities that are Schiphol specific or require special attention.

Schiphol specific

1. P2A, including Portfolio Management, create planned assets and allocation keys
2. Finance processes related to property management (Yardi)
3. Billing and collection functionality general
4. Subscription and Billing functionality in ST
5. Multiple books IFRS & Wet Luchtvaart

Attention points

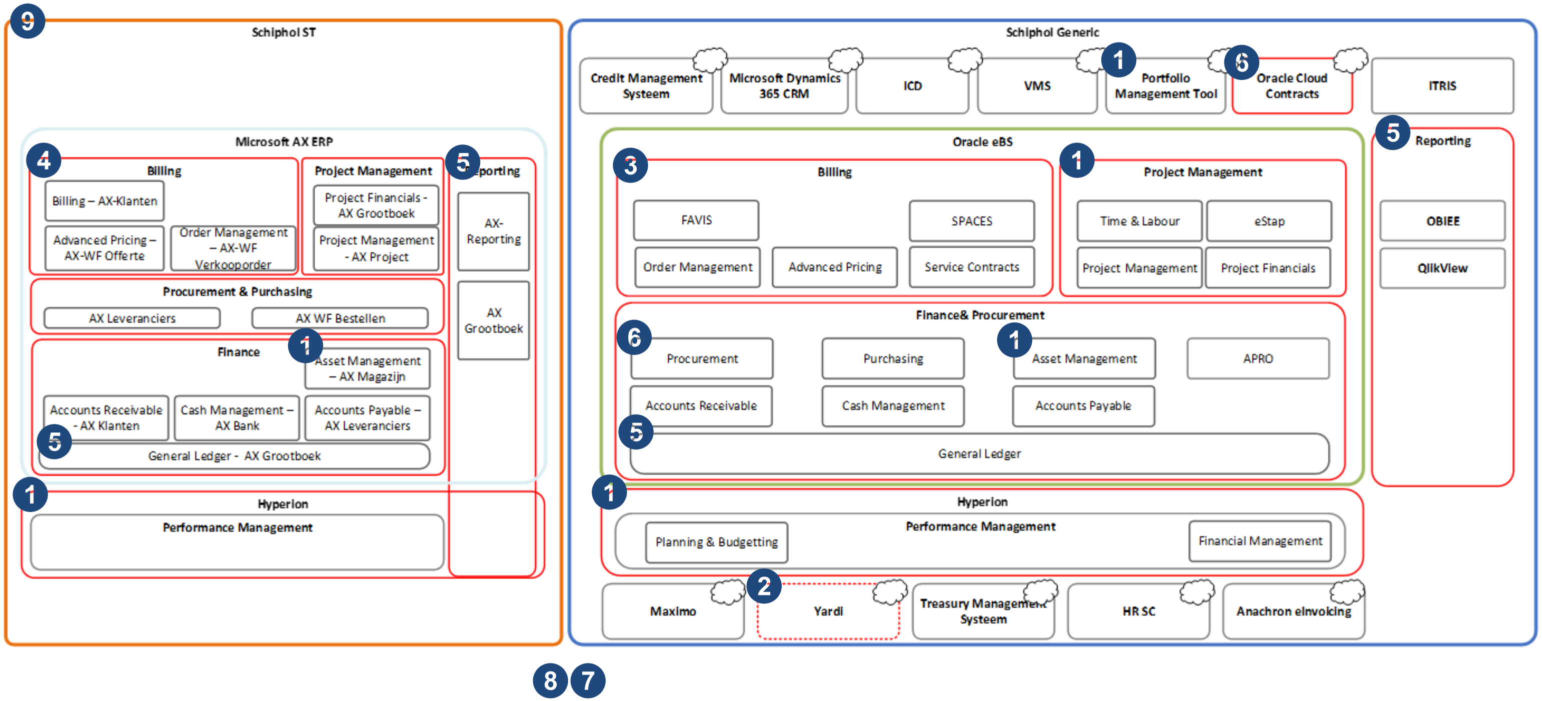
6. P2P liability administration and contract utilization
7. Compliance & Control, including automated controls
8. IT general (IAM, security baseline, Integration & e-Invoicing
9. Supply Chain Management ST

Vendor requirements

We have identified other requirements related to the vendor to complete the Technology Fit assessment:

- Pure SaaS/Cloud solution
- Relevant Cloud references
- Vision & development roadmap
- First Cloud release date
- Business stability / continuity of vendor
- Local support organization in place
- Active user-community

2. Specialties mapped on Scope



Oracle applications

Scope for Technology Fit purposes

ST Finance Applications (C AX)

Yardi in scope: Finance, Purchasing, Billing, Project management, Reporting

Identified specialties

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2. Requirement Assessment

We assessed 3 ERP Cloud solutions for Technology Fit purposes.
The 3 Cloud ERP solutions have been anonymized and will be mentioned A, B & C.
The assessed requirements are not weighted in the calculations.

Standard and Specialties Assessment

The standard and specialty requirements are assessed against the following scale:

0 – Functionality is not in the ERP Cloud solution

2 – Functionality is partly in the ERP Cloud solution

5 – Functionality is fully matched in the ERP Cloud solution

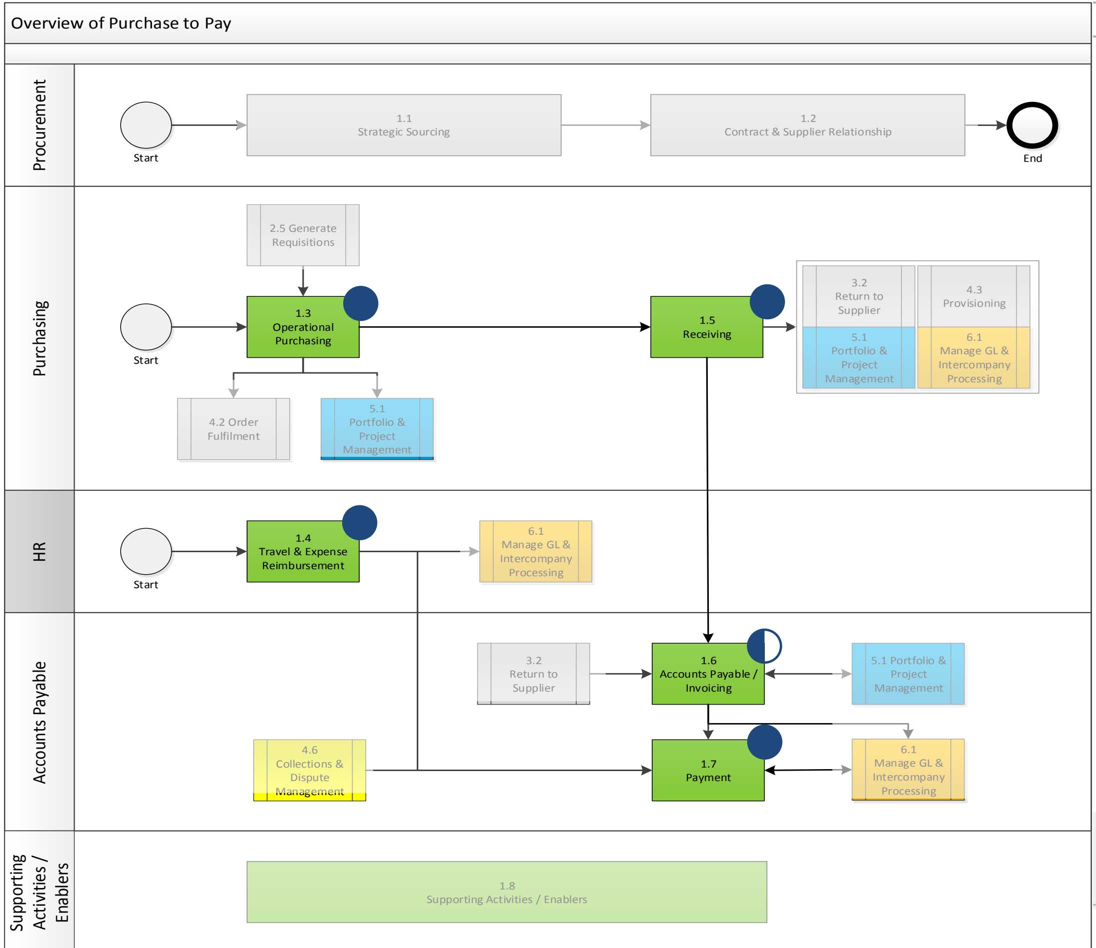
When necessary qualitative information is added to support the assessment.

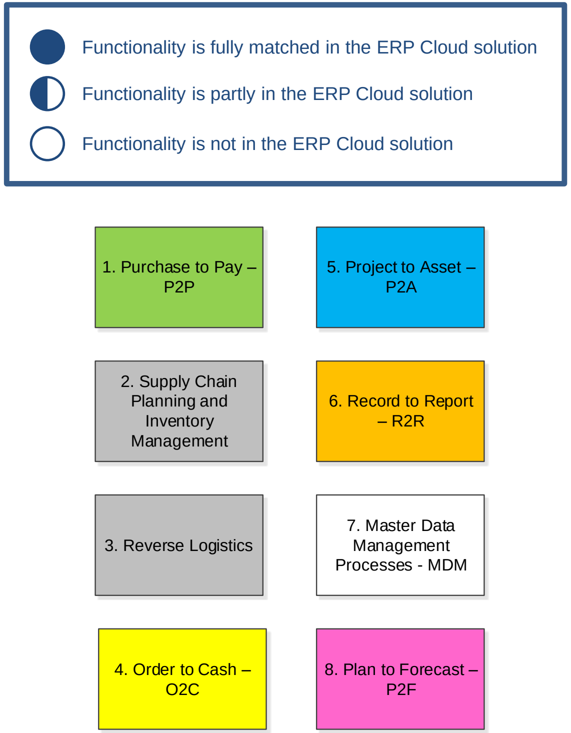
Vendor Requirement Assessment

The Vendor Requirement Assessment are graded through qualitative descriptions.

3. Standard Processes Assessment

3. P2P – Overview





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3. P2P – Standard, validated process

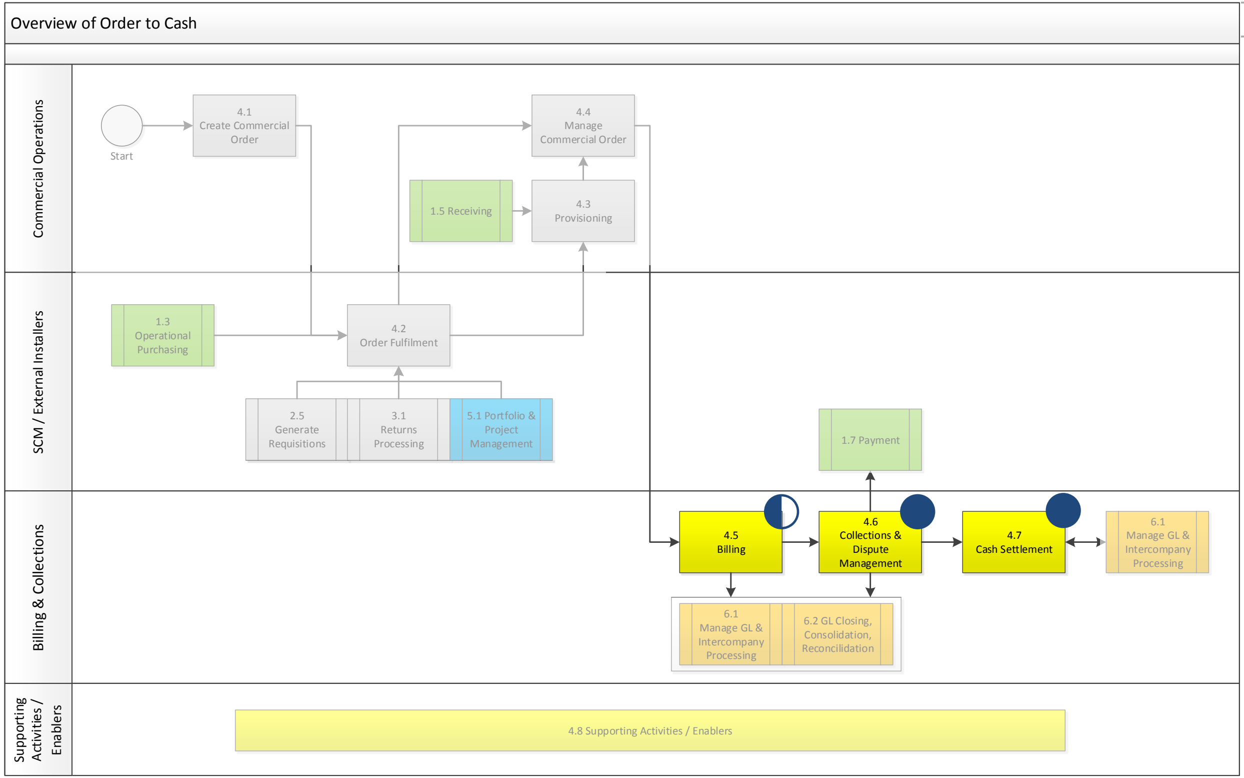
Key requirements:

- Create insight in contract utilization
- Have 3 way match available
- Automatically split amounts to the G account (“G-rekening”) for WKA (Wet Keten Aansprakelijkheid)
- Optimize interface of Maximo and ERP system (included attachment of working order via interface)

Key points of consideration:

- Solution A offers deeper functionality in the P2P process – as only the standard processes are assessed, this does not stand out in the graph
- Operational purchasing - All fit, with the exception of accepting incomplete requisition orders from Maximo in order to be approved in the new solution. All solutions require a customized interface for this. The ERP Cloud solutions do not have a standard interface with Maximo.

3. O2C – Overview



Functionality is fully matched in the ERP Cloud solution

Functionality is partly in the ERP Cloud solution

Functionality is not in the ERP Cloud solution

1. Purchase to Pay – P2P

5. Project to Asset – P2A

2. Supply Chain Planning and Inventory Management

6. Record to Report – R2R

3. Reverse Logistics

7. Master Data Management Processes - MDM

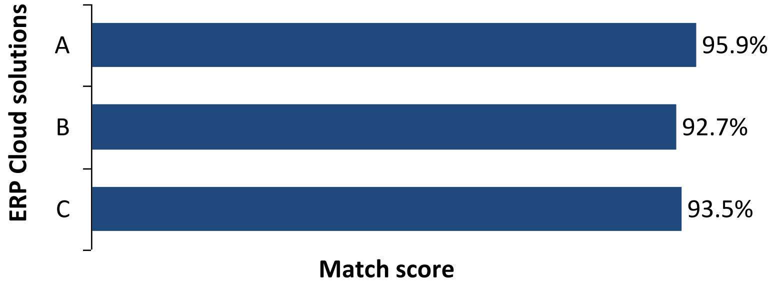
4. Order to Cash – O2C

8. Plan to Forecast – P2F

3. O2C – Standard, validated process

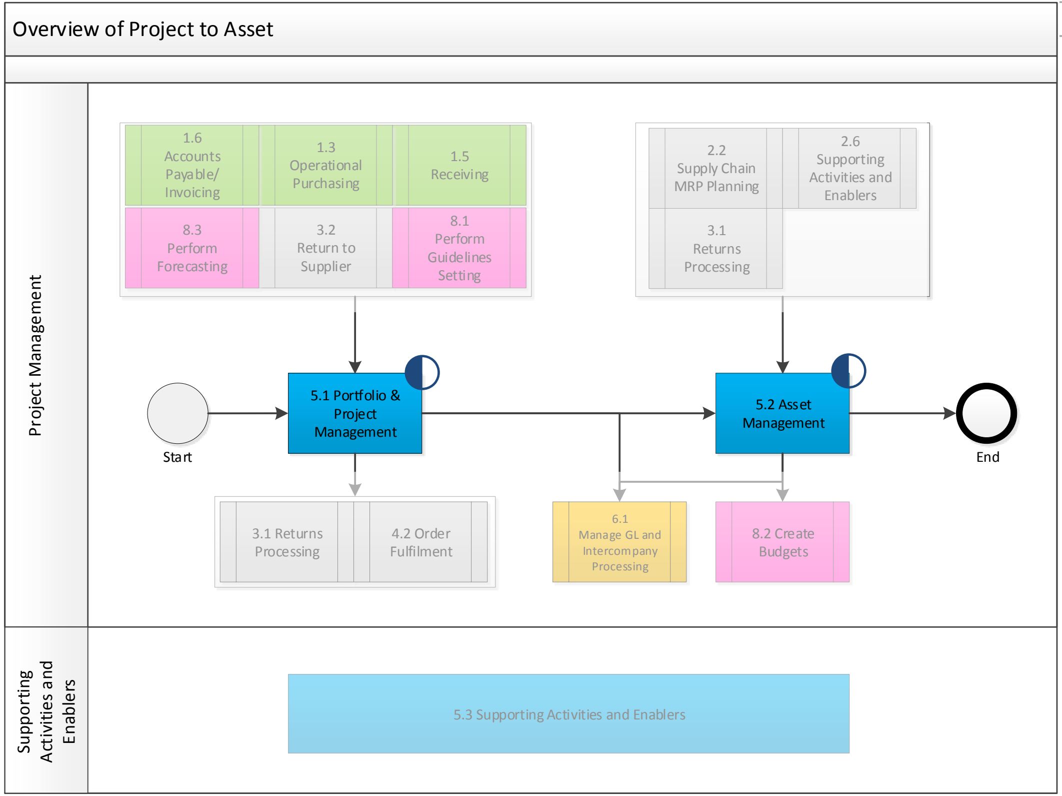
Key requirements:
- Support invoicing for all (17) revenue streams
- Replace or integrate calculation engine for airport charges
- Enable annual performance/credit rating for all airlines, and specific other customers
- Retain Credit control functionalities (Onguard) where possible in ERP Cloud system
- Integrate Privium database for management and invoicing
- Automate or integrate activities in the O2C process in the ERP Cloud system
- Support for BI tool and better reports

Specific requirements for Sales contract management are identified:
- Availability of historic contract information for consultation
- Interface contract management with ERP and legacy systems
- Enable contract categorization and search capabilities for retrieval/comparison
- Have a tool (workflow) to create/approve contracts incl. audit trail/ review possibilities
- Have contract management reporting and analyzes tool (across/within BA's)



Key points of consideration:
- FAVIS is a heavily customized process, therefore can not be supported by ERP Cloud solutions (Spaces TBD)
- Other revenue streams can be supported by standard ERP Cloud solutions
- Possible solutions:
  - a) To assess a separate billing engine solution (in the A's Cloud suite) to support FAVIS
  - b) Leave FAVIS out of ERP scope and create a separate solution to be interfaced with ERP
- The ERP Cloud solutions all support standard sales contract functionality and Schiphol specific requirements; this can be done via standard functionality in the ERP solution or a specific module in the suite, covering contract management in general or as part of CRM

3. P2A – Overview



Functionality is fully matched in the ERP Cloud solution

Functionality is partly in the ERP Cloud solution

Functionality is not in the ERP Cloud solution

1. Purchase to Pay – P2P

5. Project to Asset – P2A

2. Supply Chain Planning and Inventory Management

6. Record to Report – R2R

3. Reverse Logistics

7. Master Data Management Processes - MDM

4. Order to Cash – O2C

8. Plan to Forecast – P2F

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3. P2A – Standard, validated process

Key requirements:

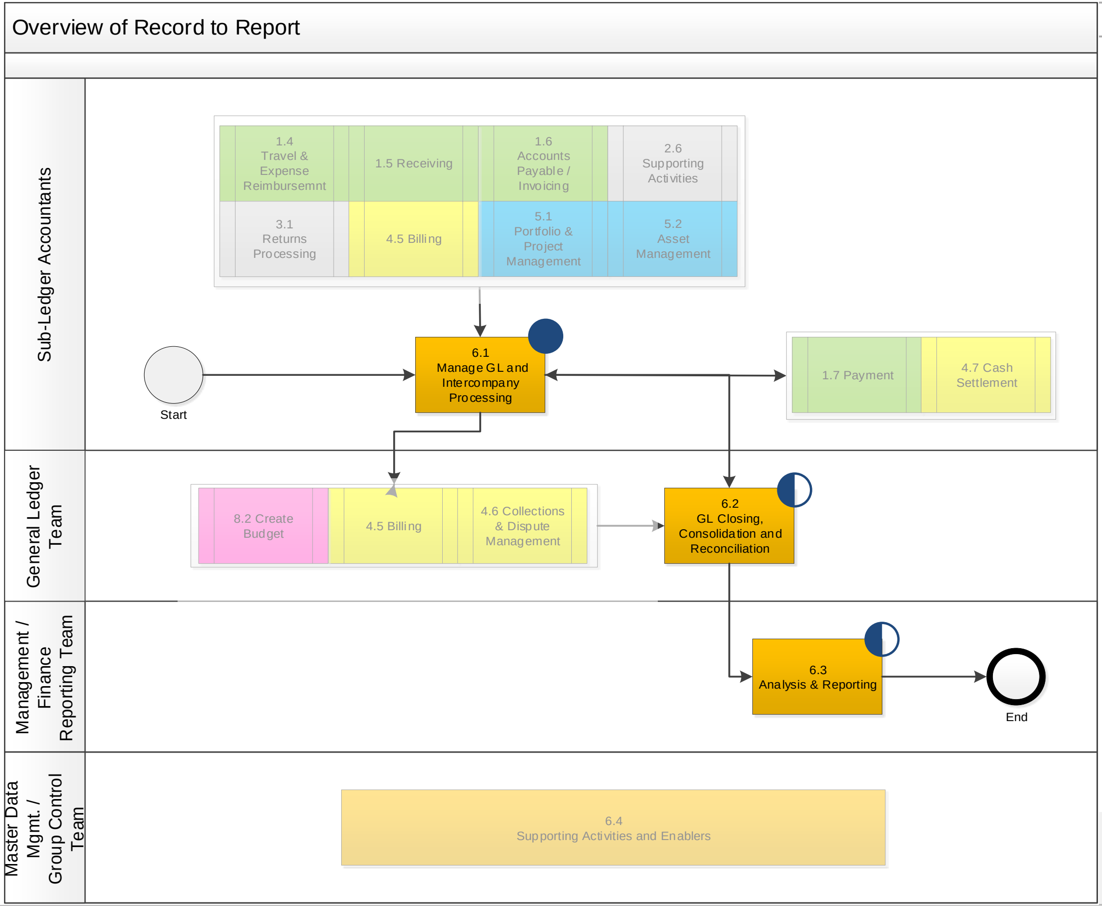
- Ensure auto accounting in the project administration module
- Book hours and register costs on a project or planned project and have insight in project resourcing
- Interface between the project admin and the “fixed asset module” of ERP
- Have an amortization functionality e.g. depreciation terms, residual value
- Support OPEX, CAPEX and mixed projects
- Ensure projects can have multiple statuses
- Approval workflow for project and project budget approval
- Cluster projects based on multiple dimensions
- Integrate with project planning tool (e.g. Primavera, MS Projects)
- Match timesheet of hired employees with PO/receipt
- Disclose all project information ((non-)financial KPIs) from ERP
- Invoice and take revenue on CAPEX/OPEX projects, and create Cash Out reports
- Facilitate and integrate Issue & Change Management

Note: Next to ERP Cloud also the EPM Cloud modules within the vendor suite are considered in this scoring

Key points of consideration:

- In general terms, A and B score better on Portfolio management (detailed requirements outstanding)
- “Request Return of Unused Goods” is an integral part of the standard process in C, for A and B this RMA should be initiated manually in the system
- Pre-calculations on planned asset (including allocation on a detailed asset level) which is required by WLV (complex process), A and C need additional modules for this. B will require an extra module to support the functionality

3. R2R – Overview



Functionality is fully matched in the ERP Cloud solution

Functionality is partly in the ERP Cloud solution

Functionality is not in the ERP Cloud solution

- 1. Purchase to Pay – P2P
- 5. Project to Asset – P2A
- 2. Supply Chain Planning and Inventory Management
- 6. Record to Report – R2R
- 3. Reverse Logistics
- 7. Master Data Management Processes - MDM
- 4. Order to Cash – O2C
- 8. Plan to Forecast – P2F

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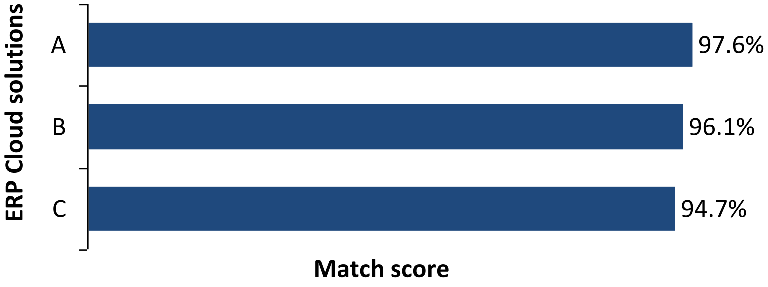
3. R2R – Standard, validated process

Key requirements:

- Support IFRS, fiscal fixed assets book & multiple currencies by new ERP
- Separate costs across multiple accounting periods
- Automate transactional processes; embedding controls in reconciliation and period-end close processes, include automated IC functionality - Accounting Process Automation
- Integrate ERP system with EPM system (include drill-down - EPM to ERP)
- Preventive system account control; don't allow manual bookings on systems account
- Have min. of 7 accounting dimensions (1 SRE specific for service cost charge
- Create overview of the old ledger structure after changing the structure
- Automate equity pick up ('deelnemingen' etc.) and cost allocations
- Consolidation and elimination
- Capture narratives and comments during analyses by the ERP system
- Have a top down cascade model for KPI database



Note: Next to ERP Cloud also the EPM Cloud modules within the vendor suite are considered in this scoring

Key points of consideration:

- Manage GL and intercompany processing is very well supported by all three packages
- Financial close, reconciliation and consolidation is also supported by all three vendors. Consolidation of investment (equity pickup) is possible in B and C, however in A it is only available in EPM suite
- Analysis and reporting is also comparable except for WLV solution (multi-book). Narratives are not directly available in B

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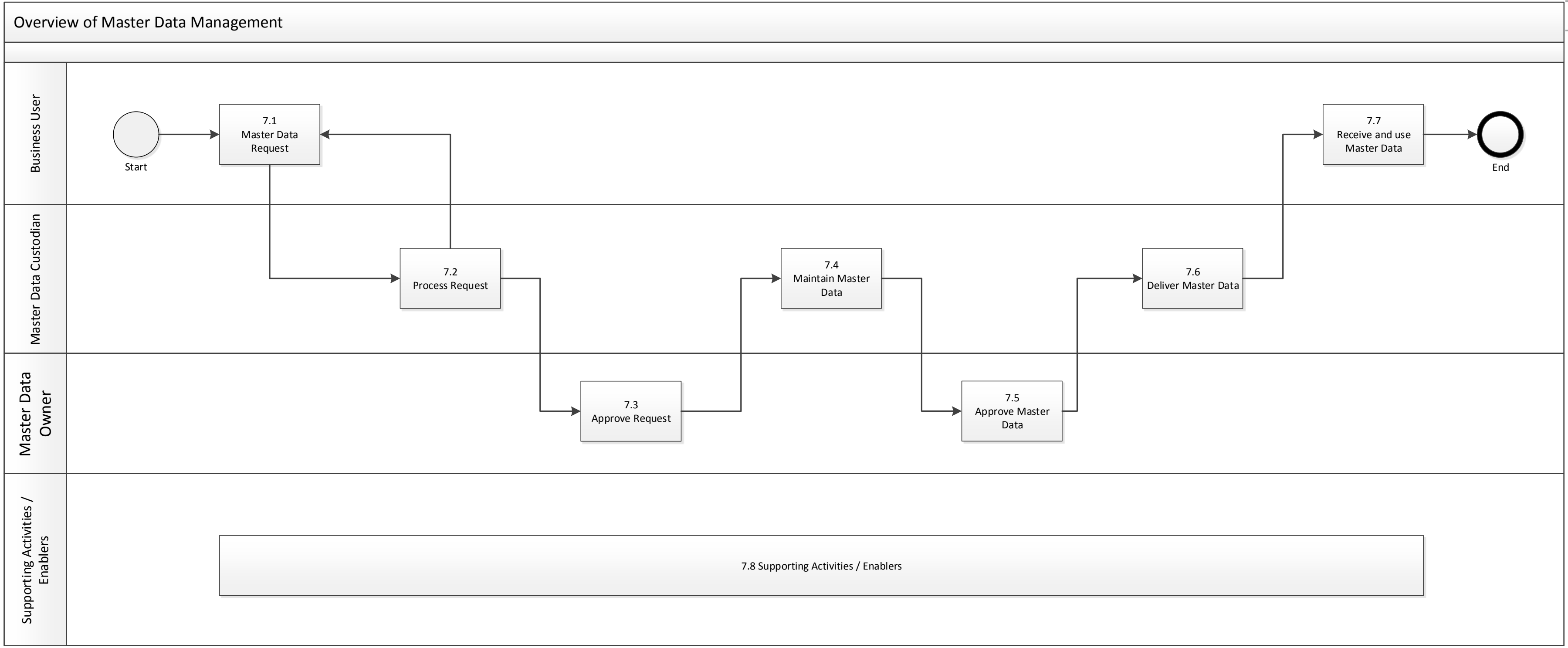
3. MDM Process - Overview



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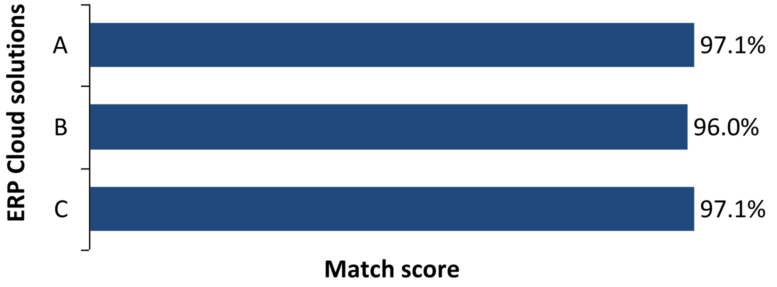
3. MDM – Standard, validated process

Key requirements:

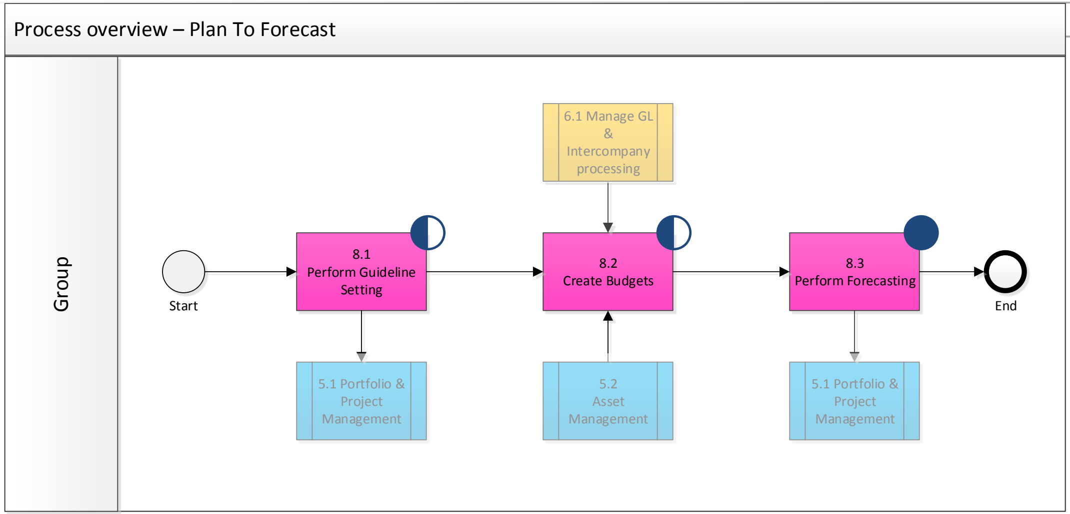
- Support standard MDM functionality for Vendors, Finance, Customers and Items
- Submitting requests can be done by everyone (Business, accounting house, Purchasing), requests are handled by Procurement
- Check requests for duplications
- Inform requestor that the MDM request was processed
- Link suppliers to a certain segment, sometimes suppliers are added in multiple segments due to different ‘vestigingen’. Currently a segment is linked to a certain GL account, which is not always beneficial
- Added customer account details are: name, address, residence, bank account, authorization for automatic collection, VAT exemption, intern/extern customer
- Make supplier details inactive when supplier is not utilized for 2 years

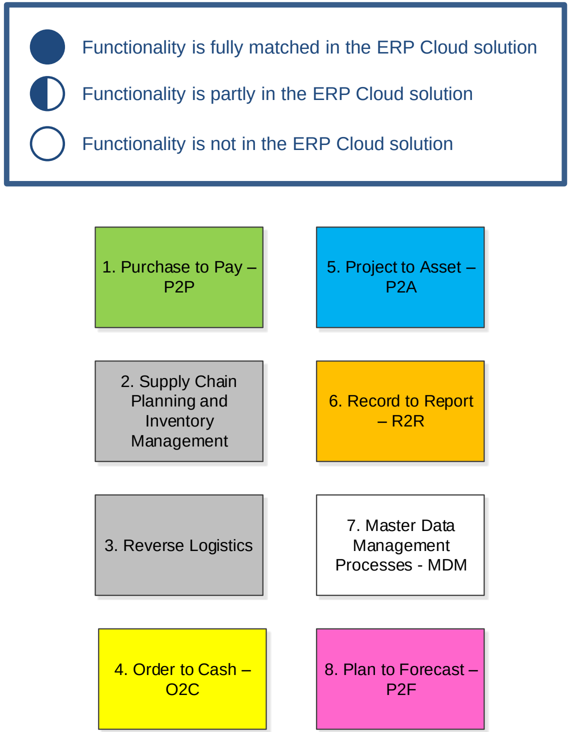


Key points of consideration:

- The ERP Cloud solutions support MDM standard process functionality
- The solutions require interfaces to receiving and using data to and from other systems

3. P2F – Overview





3. P2F – Standard, validated process

Key requirements:

- Have one system in which all allocation keys are determined and can be used throughout all systems
- Use one system for the actuals and budget both IFRS and WLV
- Have two books for IFRS and ‘Wet Luchtvaart’ (WLV), also for the forecast & actuals
- Maximize Automate/robotize to the max the required input/divers (both revenues and costs) from the source systems into planning tool
- Perform impact analysis on development of budget vs actuals
- Use of the Cloud tool for performing analyses, and make use of predictive analysis
- Capture all relevant non-financial KPIs for budgeting in the planning tool
- Facilitate workforce planning in the planning tool
- Perform status tracking when setting up budget
- Improve intercompany & internal charging Have real time consolidation & allocation process

Note: Next to ERP Cloud also the EPM Cloud modules within the vendor suite are considered in this scoring

Key points of consideration:

- Strategic planning and communication is available in A, but it is not possible in B and C has limited possibilities
- Create budget is possible in all packages except for sub topic input forecast drivers. This has limited possibilities in B and C
- Perform forecasting is possible in all three packages as standard functionality
- P2F process is impacted by the complexity of P2A process, therefore they need to be considered in relation to each other

4. Specialties Assessment

4. Specialty - P2A, Asset and Portfolio Management

Key requirements:

- Create planned project/cash flow/asset(s), projected BS and P&L effects at the level of the individual planned project/asset and include allocation
- Define project portfolio and create planned project in 1 planning tool, including timing, euros and Master Data regarding planned asset information
- Insight in delta between actuals and budget for forecasted cash flows, BS and P&L effects at individual planned and actual project & asset level
- Have version control for registering/changing budget types (project cash flows)
- Make extensive non-financial codification of fixed assets for analytics and cost-price calculations
- Register investment initiatives (planned assets) in the ERP system (to write hours on planned assets), and easily convert to an actual project
- Create projected actual asset base (BS) & depreciation charges per asset (including allocation)

Note: Next to ERP Cloud also the EPM Cloud modules within the vendor suite are considered in this scoring

Key points of consideration:

"Create planned project, planned cash flow and planned asset(s) and its projected balance sheet (asset base) and P&L effects (kosten in samenhang met investering 'kismi' and depreciation), at the level of the individual planned project and its planned asset, including allocation (requirement WLV)" is a Schiphol specific requirement. The current way of working (non-standard process, using multiple applications) can be supported by new ERP Cloud and complementary Cloud applications, similar like it is done now in Hyperion.

A deep dive is required to assess how this process can be simplified and standardized, supported by standard ERP Cloud (and complementary solutions). This includes challenging (a) the interpretation of the WLV requirements and (b) required level of detail for internal controlling, as input of possible simplification and standardization of the process. The result needs to be assessed against standard ERP Cloud.

4. Specialty - P2P, Liability administration and contract utilization

Key requirements:

- Embed liability administration for better insight in budget usage/availability
- Interface contract management with Cloud ERP/legacy systems to support transaction compliance management in order to monitor contracts
- Ensure contract categorization and search capabilities for contract retrieval and comparison
- Automatic monitoring and alerting of pre-defined events/milestones (e.g. volume thresholds, insurance expirations, out-of-tolerance transactions, etc.
- Embed workflow functionality for contract audit trail and review possibilities
- Contract management reporting and analyzes tool to create an overview for contract portfolio, analyses (slicing) and overview for exploitation of contracts and to monitor KPIs.
- Availability of (historic) contract information and sight in related contracts and delivered services to internal and external clients

Key points of consideration:

- Liability administration is a standard functionality in all three ERP Cloud solutions
- Contract modules of three vendors offer standard functionality for Schiphol, however A has a separate module which offers wider functionality to cover inventory domain
- The solutions can support large and diverse catalogs
- The solutions also support advanced spend analytics

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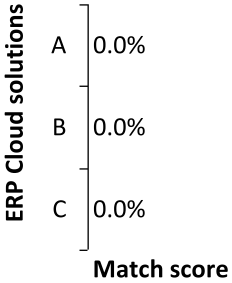
4. Specialty - Finance processes related to property management (Yardi)

Key requirements:

- Process property specific costs (1 or > calculation schedules). Ensure settlement takes place on actual occupation of the past year, and linked to space management process & contract commitment. Link income generated from service costs advances to Accounts Receivable
- Calculate optimal rate for each building based on lease data, and use percentage for all costs incurred and corrections on non-deductible VAT
- Perform invoicing at customer level, currently done at tenant level
- Automatically spread revenues to future book months (less GL processing)
- Have detailed (unit) level information available, taking multi-tenant and single tenants into account
- Differentiate on (non)deductible Tax and combine lease dates with expenses to define tax booking and reports.



Key points of consideration:

- SRE finance processes have very specific (real estate) characteristics, that can not be supported by standard ERP Cloud. It is currently captured in Yardi and only accounting lines are interfaced to ERP system. A deep dive is needed to assess the best fit solution for SRE finance process, taking into account the implications on the property management process.
- The possible scenarios:
  - Leave all finance processes SRE in Yardi and develop an interface on GL level to the new ERP Cloud. Currently the interface is on detailed operational level, in this scenario this will be changed to a financial journal level.
  - Split the finance processes between Yardi and ERP Cloud. Calculation of the invoice lines (billing engine) for the O2C process in Yardi, while actual invoicing and collections is done in ERP Cloud (under the condition of possible de-coupling in Yardi). For the P2P process the purchase orders will be transferred from Yardi to ERP Cloud and accounts payable will be handled in ERP Cloud.
  - A new property management tool:
    a) from the vendor suite – only A offers a property manager module but this is not on Cloud yet. B and C don't offer this functionality
    b) a new property management solution from a third party vendor (i.e. not A,B or C) to be integrated with the new ERP Cloud
- A combination of scenarios is possible and will be detailed in the Business Case and Roadmap phase.

Schiphol Group

4. Specialty - O2C, Billing general

Key requirements:
- Support invoicing for all (17) revenue streams
- Replace or integrate calculation engine for airport charges
- Enable annual performance/credit rating for all airlines, and specific other customers
- Retain Credit control functionalities (Onguard) where possible in ERP Cloud system
- Integrate Privium database for management and invoicing
- Automate or integrate activities in the O2C process in the ERP Cloud system
- Support for BI tool and better reports

Note: Next to ERP Cloud also the EPM Cloud modules within the vendor suite are considered in this scoring

Key points of consideration:
- FAVIS and Spaces* are heavily customized processes and systems, therefore can not be supported by standard ERP Cloud solutions
- Other revenue streams can be supported by standard ERP Cloud solutions
- The possible solutions can be (to be determined in additional deep dive):
  1. Standard pricing functionality in ERP Cloud is capable of handling the requirements
  2. Billing engine module:
     a) from the vendors suite is needed, only A has this option available
     b) separate billing engine solution from a third party to be integrated with the new ERP Cloud
  3. Split the billing process to keep the invoicing in existing tools and import the invoice lines to ERP for further financial processing

**Requirements of Spaces is yet to be evaluated for Technology Fit exercise*

Schiphol Group

4. Specialty - O2C, Billing ST

Key requirements:

- Ensure complex pricing is possible (across different services; standard, indexed, usage specific and subscription pricing; across multiple contracts; different (volume) discounts; and adding and changing one-off costs
- Retain level of subscription details in the ERP Cloud system
- Provide customer with bill specifications (e.g. subscription/article/reference number)
- Exit or close down services/goods
- Retain 360 feedback loop

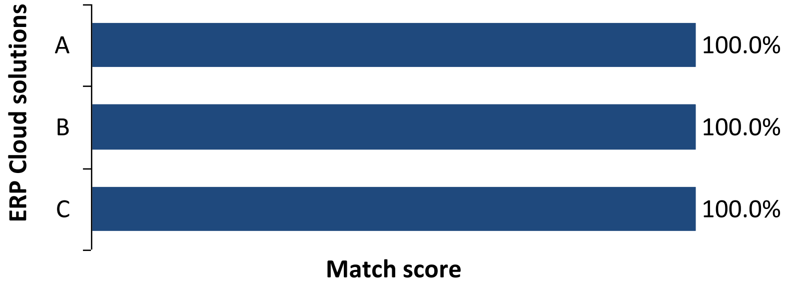
Key points of consideration:

- All billing functionality can be supported by ERP solutions except the complex pricing calculation
- Pricing calculations is a standard functionality in all ERP solutions however the complexity of ST billing calculation needs to be determined in further detail
- The possible solutions can be (to be determined in additional deep dive):
    1. Standard pricing model in ERP Cloud is capable of handling the requirements
    2. Billing engine model:
        a) from the vendors suite is needed, only A has this option available
        b) separate billing engine solution from a third party to be integrated with the new ERP Cloud
    3. Split the billing process to keep the invoicing in existing tools and import the invoice lines to ERP for further financial processing

4. Specialty - Multiple books

Key requirements:

- Support multiple books to fulfil the IFRS reporting requirements and the WLV reporting requirements



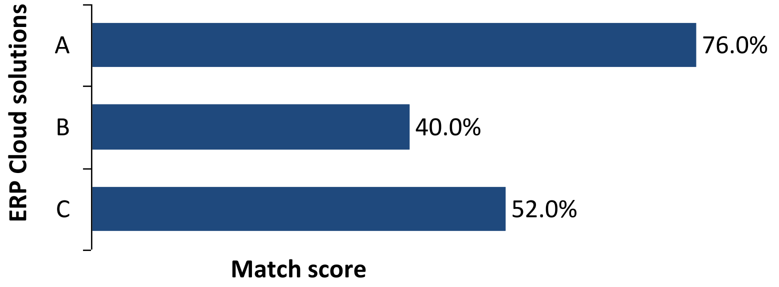
Key points of consideration:

- The functionality of multi-GAAP book can be used to create a separate accounting for IFRS and WLV
- Additional reports for WLV can be configured (standard) in the solutions (IFRS vs WLV)

4. Specialty - ST Supply Chain

Key requirements:

- Need to be able to financially follow and write off individual (high value, STIC - Schiphol Telematics Identity Code) items.
- Depreciation must be able to be stopped when items return from the field.
- Items can be build out of sub-components, for which Bill-of-Materials are (and will be) used.
- On a project: Need to be able to do partial activation (‘deelactiveringen’) with separate write offs (for both OPEX and CAPEX)
- Automated provisioning (which is a Telco specific activity) needs to be fully supported if possible integral by the ERP system. Otherwise a Telco specific solution is needed with at least one interface to the ERP.



Key points of consideration:

- Overall A can support the process whereas B and C can partly support
- “Automated provisioning (which is a Telco specific activity) needs to be fully supported if possible integral by the ERP system” is a requirement that cannot be covered by an ERP Cloud application

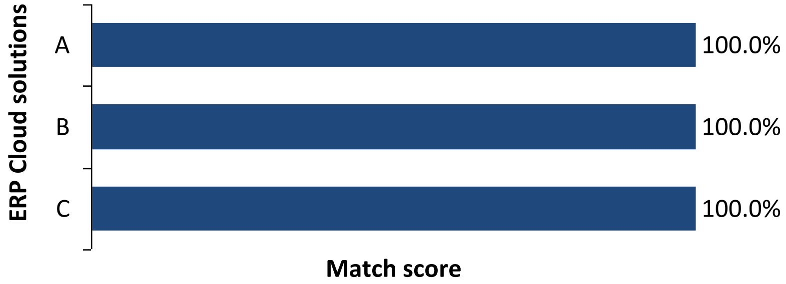
Possible solution(s):

- Automated provisioning can be handled in complementary Telco specific Cloud applications, which will then need to be integrated with the ERP Cloud

4. Specialty - Compliance & Control

Key requirements:

- Have a role based security model
- Ensure segregation of Duties capabilities
- Automate (application) process controls
- Enforced compliance (e.g. workflow)
- Have configurable application controls
- Ensure database logging and audit trail



Key points of consideration:

- Although the solutions in scope meet the stated requirements, they do not offer full Governance Risk & Compliance (GRC) functionality. These dedicated (GRC) solutions typically cover functionality in the areas of:
    - Risk management: example functionalities include Risk Analysis, Risk Assessments, ERM Dashboards
    - Compliance functionalities: example functionalities include Process and Risk Documentation, Control Management, Effectiveness of Control Analysis, Disclosure and Certification, Loss & Incident Database
    - Corporate Governance: Internal Audit, Policy & Procedure Management, Board & Entity Management, Reporting

4. Specialty - IT

Key requirements:

- Ensure IAM (Identity & Access management)
  - SAML
  - SCIM 2.0
- Integrate connection to Airport Service Bus (ASB (=ESB)) and have standard connectors available
- Ensure UBL 2.0 and IATA (for airport charges) standard to support e-Invoicing
- Have 3rd party assurance (e.g for data and security regulations)
- Remain data in Europe
- Ensure PCI compliancy
- Secure data connection (in transit and at rest)
- Ensure quality of Cloud solution in terms of speed/performance is key
- Have a client friendly user interface

Key points of consideration:

- Cloud Governance Board in place to assess new Cloud solutions for Schiphol
- BIA (Business Impact Analysis): requirements defined by 'business' and Schiphol cyber security team per new (ERP Cloud) solution (as input for IT/infra-requirements and Application Management)
- PRA (Privacy Risk Assessment): to be executed
- Best of breed architecture is acceptable requiring solutions based on open architecture (API's and ASB connection)
- Future support for mobile applications should be available
- Temporary interfaces (to support roadmap execution) are allowed and may have less strict requirements
- Performance and up-time have no clear requirements but need to be on acceptable level

5. Vendor Requirement Assessment

5. Vendor Requirement Assessment

Vendor Requirements

1.	Pure SaaS/Cloud solution	*new Cloud technology applied, pure SaaS, based on multi-tenancy (versus 'hosted' ERP)*
2.	Relevant Cloud references	*relative established foot-print in (Dutch) market at comparable organizations, mitigating the risk of being front-runner in NL*
3.	Vision & development roadmap	*vision of vendor on Cloud solutions development and time-to-market*
4.	First Cloud release date	*maturity - functional and technical- of Cloud solution*
5.	Business stability / continuity of vendor	*continuity of vendor, availability of solution and support in near future*
6.	Local support organization in place	*helpdesk support and solution expertise available for NL clients*
7.	Active user-community	*user-influence in vendor solution-roadmap, and availability of 'platform' for functionality developed by users*

5. Vendor Requirement Assessment

Pure SaaS / Cloud solution

Vendor: A	Vendor: B	Vendor: C
Pure SaaS solution, multi-tenant, with latest technology available. Mature, complete and leading finance and procurement solution for large and mid-size companies, matching Schiphol's processes in scope. Integrated with solutions such as Hyperion and PBCS. As a company not a original, pure Cloud player, in transition from on-premise (current R12 solution deployed by Schiphol) to Cloud.	Proven and robust Cloud platform. It makes innovative use of in-memory computing to combine core financial applications. Key focus areas: Financial Management, Project & Portfolio management, Resource Management, Time & Expense, Project billing & accounting, Contract Management. Roots of the vendor are in HCM, and is rapidly expanding towards Finance.	Leveraging own infrastructure assets for their SaaS ERP. Besides offering traditional ERP modules for Finance, Sales, Procurement, Warehouse management, Project Management and Budget & Forecasting, other key features include new user experience using HTLM5, Lifecycle Services to accelerate deployment and management of the application. Extensive Office and CRM integrations, IoT and Machine Learning integration and advanced embedded analytics.

Relevant Cloud references

Vendor: A	Vendor: B	Vendor: C

• NL-based Oil & chemical storage: global implementation of Fusion Cloud for the Finance and P2P processes - driven by standardization and harmonization - including integration and conversion activities (300+ users)
• NL-based Telco & cable operator: integration and standardization of existing processes and functionality used by separate business units, into a integrated and standard cloud environment for the Finance and P2P processes (300+ users)
• Global Electronics: Fusion Cloud for the Finance, P2P and Order to Cash processes (500+ users)
	• NL-based Payment service provider and NL-based Auction service provider: mainly finance processes, IFRS reporting, VAT, Bank integrations.
	• NL-based Finance management and asset management company: Financial processes & procurement processes
	• Transportation and airline industry (US): Finance solution implemented
	• Over 370+ financial management implementation worldwide, with over 215 live by 2017. Multiple of mid-size and large customers covering professional and business services (similar to Schiphol).
		• Relative new ERP Cloud solution for Finance with growing number of references in global and NL-market, including:
		  • NL-based Installation company
		  • NL-based Housing corporation
		  • Gobal Professional services
		  • Global Retail & Consumer
		  • Global transportation and logistics

5. Vendor Requirement Assessment

Vision & development roadmap

Vendor: A

- New features and functions will primarily be built in Cloud offering first, then on premise
- Adding industry specific solutions
- Expanding integration with other Products in the vendor-suite, and expanding industry specific functionality
- 14.5% of annual revenue is allocated for R&D
- As of 2018, quarterly releases

Vendor: B

- Clearly defined roadmap and release strategy. It works with half yearly upgrades and it releases (twice a year) new features during every new release.
- Formed “Customer Success” platform to gain insight into customer requests to shape next generation of ERP shows open to customer feedback
- Roadmap includes localization, industry focussed solutions and improving/adding standard business processes.

Vendor: C

Cloud and mobile first vision and strategy:

- Cloud first: As its initial software offerings are first and primarily made available in the Cloud (On-premise comes later).
- Mobile first: As it has only a web interface that can be consumed on any device anywhere in the world.

Platform is periodically updated with first and third party functionality and industry specific solutions, made available through the Cloud.

First Cloud release date

Vendor: A

First Cloud release in 2011, focusing on the Finance processes. Since then, functionalities have been added to the solution, such as elaborate procurement functionality, Order to Cash, Supply chain management. Cloud solution is considered to be a mature and stable for the processes deployed by Schiphol.

Vendor: B

Financial management in the cloud first released in 2008. As a company B has over 500 delivered business processes, 1000+ delivered objects, 300+ delivered integrations (core connectors), 3200+ delivered reports (covering HCM, Finance and Procurement domain).

Vendor: C

In March 2016 the next generation SaaS ERP solution was introduced, based on own infrastructure and innovative technology. Relative new Cloud ERP for Finance in the NL-market.

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5. Vendor Requirement Assessment

Business stability / continuity of vendor

Vendor: A	Vendor: B	Vendor: C
• Considerable growth figures for Cloud SaaS and PaaS, total organization is reporting stable results • US $37.7 billion total GAAP revenue in FY 2017 • More than 138,000 employees, including (40,000 developers and engineers; 16,000 support personnel; 19,000 consulting experts)	• Founded in 2005 and focus on SaaS Cloud only ERP for HCM, Finance, Revenue and Procurement • Fiscal Year 2017 Total Revenues of $1.57 Billion, Up 35% Year Over Year; Subscription Revenue of $1.29 Billion, Up 39% Year Over Year • Number of employees : 6900 employees plus ecosystem has close to 7000 certified financial resources	During fiscal years 2017 • Revenue $96.7 billion • R&D $13.0 billion • Growth for pure SaaS ERP 78% • Employees 124,000 people on a full-time basis (including 39,000 in operations, manufacturing, distribution, product support, and consulting services; 40,000 in product research and development)

Local support organization in place

Vendor: A	Vendor: B	Vendor: C
Strong global reach with a sales, marketing and support presence in 27 overseas locations, including The Netherlands. Pro-active approach towards clients and actively seeking cooperation in offering and developing new functionalities for local customers. Actual support organization is mainly based abroad. Strong self service solution for logging and following up issues, patches and upgrades.	Global presence with 40+ offices in NA, EMEA (including The Netherlands) and APAC region. Local sales and support available in NL. Partner eco-system for (Finance) implementation and/or support available in NL, and growing rapidly.	Strong global and local presence for sales, marketing and support, including The Netherlands. There is also an active partner eco-system, also both on a global and local level, for implementation and/or support.

5. Vendor Requirement Assessment

Active user-community

Vendor: A	Vendor: B	Vendor: C
Dutch User Group active, operating independently from vendor, offering monthly user groups, special interest groups, and a magazine. Strong knowledge sharing capabilities, good relationship with the Netherlands organization.	Community supports, educates, and empowers customers by connecting them with peers and partners. Members share ideas and best practices through a variety of collaboration tools, including contributed solutions, forums, and user groups. Vendor has put more than 1,800 brainstormed ideas into the product.	Strong and lively user community both on a global and local level, including the Netherlands with their own active Dutch chapter. Yearly user events are organized (by the community-for-the-community).