

High Level Scope

for the

European tender

Provision of Services

Baggage Transport Systems (BTS)

Lot 1 (South, Backbone)



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1. Preface

1.1 Introduction

The scope of this European tender consists of three lots described in three documents. This document sets out the requested Provision of Services Baggage Transport Systems (BTS) Lot 1 (South, Backbone). In addition to this, the lots Provision of Services Baggage Transport Systems (BTS) Lot 2 (Central, West) and Projects are described in separate scope documents.

1.2 Background

Every year, Schiphol processes approximately 50 million items of baggage. Per day, this varies from about 130,000 items on quiet days, to 190,000 items on extremely busy days during holiday periods. Close to 52 percent of all these bags is transfer baggage: baggage of passengers who transfer at Schiphol. This has to do with the network of Schiphol's home carrier KLM and SkyTeam partners; Schiphol is the hub in this network. The large amounts of transfer baggage, in particular, require a fully automated and flexible baggage system. This is why Schiphol continuously invests in expansion and innovation, and has one of the most modern baggage systems in the world.

About 2,000 people work in baggage handling at Schiphol, for a large part in shift work. The people who work for Amsterdam Airport Schiphol, together with a number of contracted companies, are responsible for the processing, control, management and Maintenance of all baggage systems, including the data centres and software that control the systems. The handling companies perform the physical handling of baggage. The largest being KLM. Other handlers are Aviapartner, dnata, Menzies and Swissport.

Schiphol has four areas where baggage is processed. These connect to each other via the Backbone: the transport system that can transport the baggage items directly from one area to the other. The baggage areas bear the names West (in Terminal 3), Central (in Terminal 2 and under the E-pier), D-hall (under the D-pier) and South (in Terminal 1). In total, there are about 50 kilometres of transport system in the baggage areas.

- In West (Terminal 3), it mainly concerns baggage from departure halls 3 and 4;
- In Central (Terminal 2), it mainly concerns baggage from departure halls 1 and 2. Under the E-pier, transfer baggage is unloaded and intercontinental baggage of KLM and partners is made-up;
- In the D-hall, transfer baggage is unloaded and baggage for European destinations is made-up;
- Baggage hall South (Terminal 1) is used to unload and make-up (transfer) baggage for Schengen countries. To this end, the hall is equipped with six loading robots, transfer unloading quays, a large buffer and a good connection with the other areas via the Backbone. Baggage hall South is also used to handle flights from departure hall 1 (and departure hall 1a).

The Backbone is in use since December 2012. This new baggage transport system connects the four baggage areas at Schiphol with each other: from baggage hall South via the D- and E-pier up to hall West under Terminal 3 (and vice versa). Because all areas connect with each other, both physically as well as in the area of control, there is now one integrated baggage system. The handling of transfer baggage, in particular, is much more efficient as a result.

1.3 Purpose of this document

The purpose of this document is to clearly and unambiguously set out the scope of the Lot in question. Based on this, market operators are provided insight into the general scope of the lots, Lot division, scope of activities and division of tasks and responsibilities between SNBV and Supplier.

1.4 Reading guide

Following this preface, chapter 2 sets out the management vision. Chapter 3 sets out the general description of the assignment (high-level scope).

2. Management vision

This chapter describes both the objectives that SNBV pursues as well as the Asset Management principles, which together form the starting points for the activities that the Supplier must perform within the scope of this assignment. Subsequently, the organisational departments relevant to this assignment are described and the main responsibilities are set out.

2.1 Objectives

The handling of baggage is one of the most important processes for the functioning of Amsterdam Airport Schiphol. Every day it is of vital importance to SNBV to facilitate this process properly. Asset Management contributes to this by being best-in-class. To remain best-in-class in Asset Management, four strategic pillars have been identified:

- Achieving optimal asset returns;
- Working together in an excellent organisation;
- Developing innovation and digital;
- Creating sustainability and safety.

All activities the Supplier must perform are concerned with both the abovementioned objectives and the Asset Management principles.

2.2 Division of responsibilities for the handling of baggage

Within SNBV, a number of departments are responsible for elements of the baggage process. The departments the Supplier will primarily work and communicate with are:

- Day-to-Day Operations (DDO) - Airport Control is responsible for managing the baggage process 24/7. Airport Control makes and keeps the baggage systems available to users (incl. handlers), is (co-)manager of the baggage processing in the systems (with respect to process and technology) and maintains order and safety in the baggage handling areas. Airport Control controls Scarabee in the operation. Different handlers use the system, including KLM, KLM-PG, Menzies, Swissport, dnata and Aviapartner. Extra handling services are provided by Baggage Operational Support (BOS) within Aircraft Operations;
- Day-to-Day Operations (DDO) - Baggage Operational Support (BOS) has as its most important task the supporting of the baggage handling process where needed. Amongst other things, BOS is responsible for the transport of delayed transfer baggage to the correct location, the processing of baggage with a deviating format (called odd size), a part of the transport of V.I.P.-baggage and the sorting and transporting of hold baggage that is unable to be processed by the Baggage system;
- Process Development & Capacity (PDC) Management is responsible for (securing) the required capacity and the associated processes. The objective of Process Development & Capacity Management with respect to the handling of baggage is to have a clear picture of the number of baggage items that can be processed with the baggage systems now and in the future, and of how well this is happening. Process Development & Capacity Management studies the effective capacity (resources x use), optimises the process, analyses the expansion of the capacity and substantiates all this with numbers. This is done both looking back to build up knowledge in the form of reports, as well as looking forward in the form of short, medium and long-term prognoses, analyses, simulations and pilots;
- Support & Resource Allocation (SRA) is the link in the central information flow between PDC and DDO and back. They take the feedback of DDO (debriefing) and make sure that it is resolved, within Operations or where necessary outside of that, e.g. ASM. SRA does not only make the operation possible through planning and sharing information, they also manage the elements that are required to run the operation;
- Asset Management (ASM) – Technical Management Baggage is responsible for maintaining the baggage system (securing the Maintenance, availability, reliability of systems/resources and the associated processes) with the objective of facilitating a stable baggage operation. Reliability, sustainability and safety are secured against the lowest costs today and in the future. Technical Management Baggage is the department instructing (client of) the Supplier;
- Project Office Amsterdam Airport Schiphol (*Projectenbureau Luchthaven Schiphol*, hereafter 'PLUS') is responsible for the project management of most of the investment projects at Schiphol. Both engineering as well as civil projects (excluding IT projects). These projects concern

new construction and Maintenance. PLUS looks after the project management and financial controlling of these projects.

2.3 Division of responsibilities

SNBV is ultimately responsible for the management of the baggage system at Amsterdam Airport Schiphol. The outsourcing of activities has resulted in the following division of responsibilities:

- As asset owner, on a *strategic* level SNBV is (directionally) responsible for the management strategy, management policy, knowledge of the baggage and maintenance process, information provision regarding the baggage process, compliance with laws and regulations and budget;
- As asset manager, on a *high tactical* level (translation from direction to implementation) SNBV is responsible for the functional specification of baggage technology, culture, providing Schiphol-specific instructions and supporting resources, monitoring the proper application of the maintenance methodology and performing audits and reviews;
- Supplier, as service provider, is on a *low tactical* level (translation from direction to implementation) responsible for such matters as updating the multi-year plan, maintenance specifications, maintenance concept, maintenance plans, asset information, information on Incidents, Problems and Changes, the work order management, continuous improvement by performing process (both baggage as well as work process), system and maintenance analyses.
- Supplier, as service provider, is on an *operational* level (performing) responsible for the planning, preparing of activities, incl. coordination thereof with SNBV, the performing of the activities, progress monitoring of work orders and technical and administrative processing of activities.

The activities requested from Supplier are set out in chapter 3, Assignment description.

2.4 Forms of management

ASM uses the ISO 55000-series for Asset management as guiding framework to manage the baggage system in an efficient, sustainable and effective manner, and aligned to the strategic objectives of Amsterdam Airport Schiphol. The organisation and execution of the management with respect to the baggage system is based on ITIL (IT Infrastructure Library). ITIL is a reference framework for the organisation and execution of the management processes within the Asset Management (ASM) – Technical Management Baggage organisation.

3. Assignment description

This chapter sets out the scope of the assignment. The scope of the assignment concerns the Provision of Services in relation to the Baggage Transport System. This chapter first describes the scope in relation to the Baggage Transport System and then the scope in relation to the Provision of Services.

3.1 Scope in relation to Baggage Transport System

The baggage architecture in the production environment consists hierarchically of two “main layers”, the BCS (Baggage Controls Systems – airport-wide systems) layer and the BTS (Baggage Transport System – area-specific systems) layer. There is already an existing agreement with a contractor with the scope BCS. The scope of this Lot concerns the BTS layer, as outlined in red in figure 1.

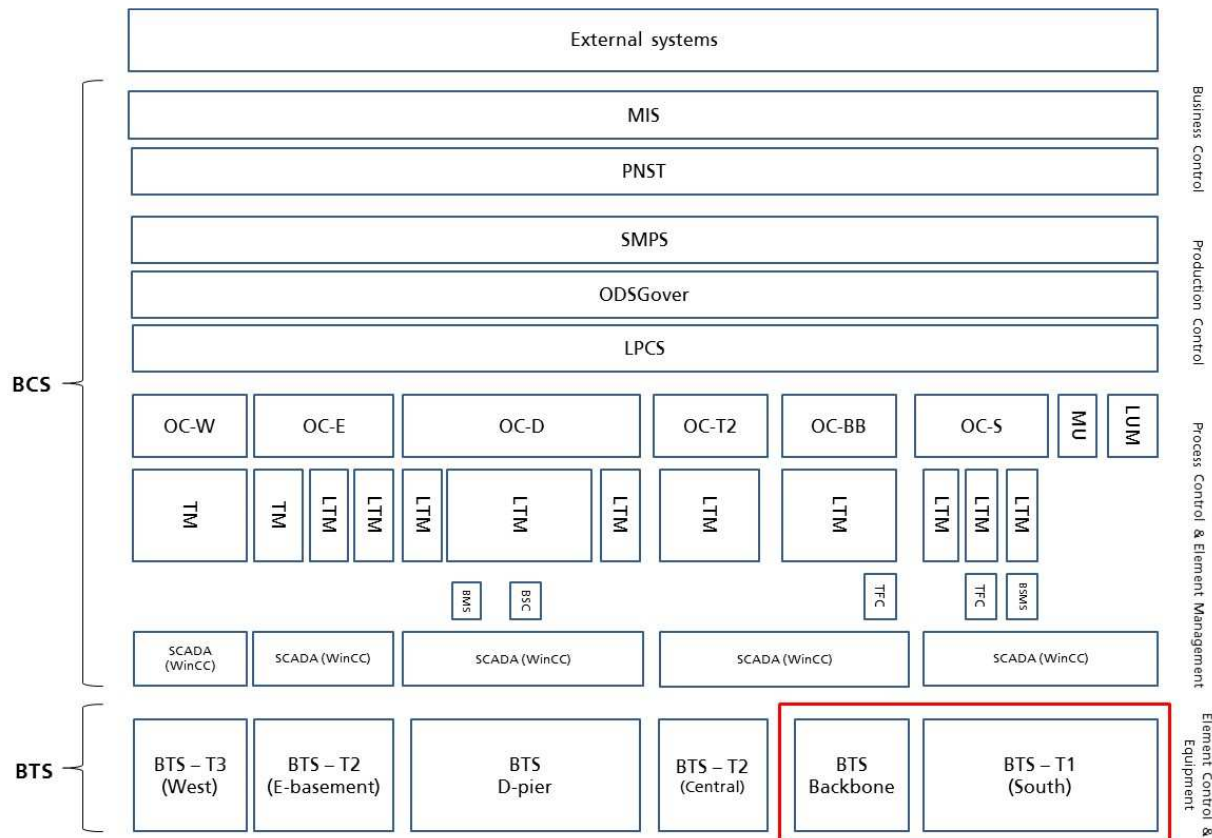


Figure 1: scope of the Lot in relation to baggage architecture¹

¹ Both the Pilz-network as well as CM's (Communication Manager) are missing in figure 1. CM's and Pilz-network (area) are part of the scope.

BTS Backbone consists of the following subsystems:

1. Connection buffer in Terminal 1 (South) to Container basement 1 (C-base, is drop chute from Backbone to D-pier);
2. Connection from Container basement 1 (C-base) to drop chute E-basement;
3. Connection from Container basement 1 (C-base) to drop chute Terminal 3 (West);
4. Connection from E-basement to drop chute T3 (West).

BTS Terminal 1 – South consists of the following subsystems:

- Reclaim (arrival): These are the three arrival and the 'Odd Size' arrival-line. These are in arrival hall 1;
- Local check-in (departure) and HBS: These are the check-in desks in departure hall 1 and the HBS-lines in basements -1 and -2. Via the tunnel, the baggage ultimately ends up at the buffer or the sorting area;
- Buffer: This is the baggage storage system in the South area located between the B and C-pier under the apron where the aircraft are parked;
- Sorting and make-up: Two sorting machines (stacked) in sorting hall South sort the baggage to the various output points, such as laterals and carrousel. Six make-up lines are equipped with a robot for loading baggage into loading units;
- Transfer input and HBS: There are two lines in sorting hall South for the input and HBS of Transfer baggage. These lines are connected to the buffer and the sorting machines;
- Baggage Reclaim Area: arrival and departing baggage is processed in this area.

Within the *element control and equipment* layer, a distinction is made between an *element control* layer, an *electromechanical* layer, which facilitates communication between the *element management* layer and the BTS components, and a *mechanical* layer which the BTS components (as listed below) are part of.

The *element control* layer consists of:

- Area Controller (AC) – PC/PLC (hardware and software) consisting of Transport Controllers (TC) – PC/PLC (hardware and software) for the buffer system (Bag store component), the Baggage Transport System Tubtrax (DCV component), manual identification (MID component) of bags and the safety system (Safety component).

The *electromechanical* layer consists of:

- Power supply (from main distributions to low voltage distribution panels);
- Uninterruptible Power Supply (UPS, incl. cooling packages and chillers);
- Area Cabinets and local control cabinets;
- Profibus network;
- ASi-bus network;
- Interbus-S network;
- LON-network;
- Overall safety system;
- Control equipment (Local Motor Starters, Operator Displays, Operator Panels, pneumatic and hydraulic components and earthing).

The *mechanical* layer consists of:

- Conventional transport equipment, consisting of:
 - o Transport sections (incl. alignment unit, curve, injection and straight sections, roller conveyor and chute);
 - o Vertisorter and Vertimerge;
 - o Sorting belts (arrival belts and sorting belts);
 - o Lifts (discontinuous and continuous);
 - o Herberts;
 - o HBS machines;
 - o Buffer (cranes and racks);
 - o Scanners (barcode, positioning, volume);
 - o Weighing unit;
 - o Scales;
 - o Fire hatches;
 - o Sorting machine;

- o SSDOP's (Self-Service Drop-off Point);²
- o Doors (incl. SSCD's - Safe Secure Check-in Door);³
- o Lifting aids (incl. scissor lift table and incl. accessories, such as compressors, lines and valves);
- o Tubtrax® equipment;
- o Robots (incl. control and LUPE, excl. handheld terminals).

3.2 Interfaces with other assets (exclusions)

The following components are excluded from the scope of this assignment:

- Baggage Transport Systems (BTS) in Central (Terminal 2), West (Terminal 3) and D-pier are not part of the scope of this assignment. Central (Terminal 2) and West (Terminal 3) are part of Lot 2. D-pier is contracted separately.
- Baggage Controls Systems (BCS) are not part of the scope of this assignment. These are part of Lot 3;
- External systems such as IT Service Management System (ITSM), Flight Information Display System (FIDS), Station Operation Control System (SOCS e.g. Flight Information Royal Dutch Airlines - FIRDA), Departure Control System (DCS e.g. SITA, ALTEA), Airport Service Bus (ASB), Airport Operational DataBase (AODB e.g. CISS), Enterprise Asset Management System (EAM e.g. Maximo), Fire Alarm System (*Brand Meld Centrale*) and Stepping Stone server (for remote access) are not part of the scope of this assignment;
- The maintenance and support of the Maxibas emulation environment is not part of the scope of this assignment. This component supports the function testing and comprises the to analyse the actual system behaviour and to test new versions of components before they go into production;
- The maintenance and support of the Simbax simulation environment is not part of the scope of this assignment. This component supports the function simulation and comprises the simulation environment to simulate the process behaviour;
- Infrastructure Services such as Climate Control System, Dynamic Name Server (DNS), Network Management System OPSView and the Network Time Protocol (NTP) are not part of the scope of this assignment;
- The provision of complete data of the baggage item (bag information), which is required to transport the baggage item to the correct exit of the BHS, is expressly excluded from the scope of this assignment.

The prevailing configuration items list (assets), pertaining to the Provision of Services, is included in the Configuration Management Data Base (CMDB = asset register).

3.3 Optional scope (possible expansion with respect to Baggage Transport System and activities)

It is possible that the Baggage Transport System (and consequently the activities) is expanded during the contract period. The optional scope consist of the following:

BTS A-pier

BTS A-pier will be delivered at a time yet to be determined and will in all probability consist of the following subsystems:

- Local check-in (departure) and HBS;
- Sorting and make-up;
- Transfer-input and HBS;
- Reclaim (arrival);
- Connection with Terminal 1 (South).

² SSDOP's are not part of the scope of this assignment.

³ SSCD's are not part of the scope of this assignment.

The A-pier may be expanded even further, which may result in a further expansion of the baggage systems.

Self-Service Drop-Off Points

These are the baggage drop-off points where passengers can check-in their baggage themselves. This is an alternative for staffed check-in desks.

Safe Secure Check-in Doors

This is a security facility (automatically controlled doors) by the collection belt. These ensure that unauthorised access to the Baggage system is impossible.

In addition to the possible expansion of assets with respect to the A-pier, there may also be an expansion of components that currently are part of Lot BCS (Baggage Controls Systems). These are the control layers Process Control and Element Management.

Process Control (as visualised in figure 1)

The components that are part of the Business Control layer and/or the Production Control layer support area-exceeding functionalities. The components in the Process Control layer, however, only support area-specific functionalities on a daily basis. The idea behind this modular (area) design is to limit complexity and to enable the isolation of failures within an area.

It also allows Schiphol to adapt to variations in the baggage process and results in flexibility to (be able to) implement changes in the handling of baggage. Process Control comprises the components Operational Control (OC), One Stop Security (OSS) Make-Up (MU) and Loading Unit Management (LUM).

Element Management (as visualised in figure 1)

The components that are part of the Element Management layer support functionalities within a 'logical' segment of the baggage process within an area. The Element Management layer comprises the components Logistic Transport Manager (LTM) and Transport Manager (TM).

Future expansions and (further) development of Baggage systems that lie inside or near the areas that are within the scope of this Lot, are also part of the optional scope.

Future expansions and (further) development of Service Management processes are also part of the optional scope.

In addition, the possibility exists that the scope is expanded with Provision of Services for the benefit of subsidiaries (Lelystad, Rotterdam and Eindhoven).

3.4 Scope in relation to activities

The requested Provision of Services relates to the performance of Service Management activities. The operational service and maintenance activities (on a 24/7 basis) are managed by Day-to-Day Operations – Airport Control. Asset Management – Technical Management Baggage is the department instructing (client of) the Supplier and manages the contract.

The Supplier is supported by seven Solution groups contracted by SNBV, consisting of five external Solution groups (Beumer, Vanderlande, Scarabee, Smiths Detection and L3) and two internal SNBV Solution groups (Schiphol Telematics and IT). Supplier must also contract a number of Solution groups itself, either or not prescribed by SNBV.

The Supplier is overall responsible for the (project-based) implementation of the Changes, including the activities performed by the Solution groups.

The work method of the *Service Team BTS* looks as follows:

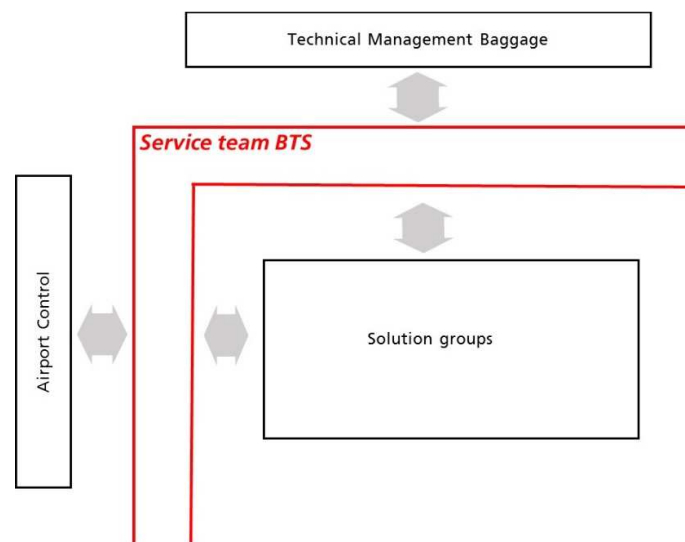


Figure 2: schematic overview of stakeholders in the chain.

The Supplier is responsible for the performance of activities within the following processes:

- Operations Management:
 - o Performing day-to-day routine tasks (incl. supervision, coordination and combination) related to the operation of the Baggage Transport System. The supplier is able to indicate proactively in the language of the user (Day-to-day Operations) what the impact of technical disruptions in the BTS has been/will be on the operational baggage process;
- Strategy Management:
 - o Formulating (and delivering in time) how Service Management provided by the Supplier aligns with the strategy of SNBV and enables SNBV to achieve its business objectives.
- Service Portfolio Management:
 - o Compiling an appropriate service catalogue and keeping it up-to-date. The service portfolio distinguishes between services in the pipeline (proposed or in development), service catalogue (live or available to use) and discontinued services.
- Financial Management (financial planning and monitoring of costs/result over a specific period):
 - o Managing the financial information provision regarding the Baggage Transport Systems to ASM – Technical Management Baggage. Supplier shall give insight into the expected and actual costs.
- Demand Management;
 - o Ensuring (understand, anticipate and influence) that there is sufficient capacity/staffing to meet the required customer demand for services.
- Customer Relationship Management;

- o Establishing and maintaining a positive relationship between Supplier and SNBV based on understanding SNBV and its business needs. The Supplier ensures that it can meet the needs of SNBV in a situation in which the business needs change constantly. To this end, Supplier shall, as specified in Service Portfolio Management, compile an appropriate service catalogue and keep it up-to-date.
- Design Coordination;
 - o Ensuring that the goals and objectives of the service design phase are achieved and meet the requirements specified by SNBV. The Supplier shall be the single point of contact for ASM for the coordination and checking of all activities and processes in this phase of the service lifecycle. Design coordination relates to the redesign of existing services and, on the other hand, relates to activities for the new services to be designed in relation to the Baggage Transport Systems.
- Service Catalogue Management;
 - o Ensuring there is a Service Catalogue is produced and maintained, containing accurate information on all operational services and those being prepared to be run operationally. This process provides vital information for all other ITIL service management processes: service details, current status and the services' interdependencies. This information is only made available to those who are allowed access to it (authorised persons).
- Service Level Management;
 - o Ensuring that service level agreements are established, secured and updated, ensuring that all service management processes, operational level agreements and underpinning contracts are aligned with the agreed upon service level goals, monitoring and reporting on service levels, periodically (monthly, quarterly and yearly) evaluating the Provision of Services and ensuring that proactive measures for improvement are implemented where this is justified as to costs.
- Capacity Management;
 - o Ensuring that the required capacity is provided, which aligns with both the current as well as the future needs of SNBV, against acceptable costs and ensuring that the capacity of the BTS meets the agreed upon capacity and performance requirements in a timely and cost-effective manner.
- Availability Management (including Preventive Maintenance);
 - o Ensuring that the extent to which a service is available meets the current and future needs of the business in a cost-effective way. Part of this process is maintenance management: the development of the maintenance concept description and the planning, scheduling, executing and improvement of maintenance activities.
- Continuity Management;
 - o Continuity Management aims to manage risks that could seriously impact the BTS functionalities. Giving support to the overall continuity management process of SNBV by ensuring that the necessary BTS-functionalities are available again within the required and agreed service levels.
- Information Security Management;
 - o Ensuring that information is available and useable when required, that information is only available to authorised persons (confidentiality), that information is complete, accurate and protected against changes by persons who are not authorised to do this (integrity) and that the exchange of information between e.g. SNBV and its partners is reliable (authenticity and irrefutability).
- Supplier Management (management of internal and external Solution groups);
 - o Managing the Solution groups and the services they provide. It is the task of Supplier Management to ensure that services provided by Solution groups link up seamlessly with the expectations of SNBV (support the needs of the business) and that Solution groups meet their contractual commitments.
- Transition Planning and Support;
 - o Providing an overall planning for the transition of services and the coordination of all resources that are required for this.
- Change Management;
 - o Controlling the entire lifecycle of all Changes (project-based implementation of Changes can be a part of this) and ensuring that there are minimal disruptions to the Baggage system as a result of the implementation of Changes.
- Service Asset and Configuration Management (incl. programme management and distribution);
 - o Maintain information about Configuration Items (knowing what is where and making adjustments where necessary) required to deliver services and ensuring that accurate and reliable information about these assets is available when this information is required. This

information comprises details on how the assets are configured and what the mutual relationships between the assets are.

- Release & Deployment Management;
 - o Release and Deployment Management consists of making plans, time schedules and checking the composition of releases (release packages), testing and distributing the releases and delivering the new functionality required by the business operations, whilst protecting the integrity of the existing services.
- Service Validation & Testing;
 - o Validating and testing of a new or changed component. Ensuring that new or changed CI's are fully in line with the design specifications and that these meet customer expectations.
- Change Evaluation;
 - o Being able to determine in a consistent and standardised manner (through a assessment) whether a (to be) changed service is able to deliver the required performances, before a Change is allowed to proceed to the next phase in the lifecycle. In addition, being able to determine what the (potential) risks of a change are for the results of the business operations, the existing and proposed services and Baggage Transport System.
- Knowledge Management;
 - o Ensuring that experiences, ideas and information are (able to be) shared in such a manner that decisions are based on correct and complete information without needing to look up/rediscover the relevant knowledge again.
- Event Management;
 - o To make sure Configuration Items (CIs) and services are constantly monitored by controlling of 'events' (informative, warnings or exceptions) throughout their entire lifecycle, such as: detection, attribution of meaning and establishing the correct monitoring action.
- Incident Management;
 - o In the event of Incidents, restoring normal business operations in accordance with the service levels, limiting the negative consequences (impact) of an Incident on (the activities of) the business operations as much as possible and ensuring that the best possible levels of quality and availability of the system are maintained.
- Request Fulfilment;
 - o Controlling the lifecycle of all service requests. Request Fulfilment is the process for the handling of all requests. An important difference between an Incident and a service request is that an Incident is usually an unscheduled event, while a service request (request from a user for information, advice, standard change or access to an application) is more something that can and should be scheduled in.
- Problem Management;
 - o Problem Management aims to manage the lifecycle of all Problems. The primary objectives of this process are controlling the lifecycle of all Problems from the moment that a Problem is identified, towards the investigation leading to the cause of the Problem, the recording of all information with respect to this, and any actions to be taken to solve the Problem. Problem Management comprises all activities that are required to diagnose the underlying cause of Incidents and to find a solution for these Problems. It also ensures that the solution is implemented by the correct monitoring procedures, i.e. via Change Management and Release Management. 'Proactive Problem Management' analyses Incident Records, and uses data collected by the Baggage system to identify trends or significant Problems.
- Access Management (incl. remote access);
 - o Access Management aims to grant authorized users the right to access to the system, data or other assets to users, while preventing access to non-authorized users.
- Continual Service Improvement;
 - o Ensuring that services are measurable, that services are reported on, and initiating efforts towards improvements. Improvement takes place in accordance with the PDCA-cycle.
- Technical Management:
 - o Technical Management provides technical expertise and support for the management of the Baggage Transport System (BTS). Technical Management is the activity that is responsible for a stable technical infrastructure. The Supplier supports the scheduling of activities, implementation of changes and maintenance of the system. Within this process, the Supplier is responsible for providing technical expertise and general management of BTS.
- Application Management:

- o Application Management is responsible for managing applications throughout their lifecycle. Application Management plays an important role in the application-related aspects of designing, testing, operating and improving the Baggage system, as well as in developing the skills required to operate the applications. 'Application Management' is an ongoing activity, as opposed to 'application development', which is typically a one-time set of activities to construct applications.
- Safety Management (Health, Safety & Environment)
 - o Comprises the efficient controlling of safety risks for dwelling and working near and/or works on BTS, whereby accident prevention, risk limitation and the wellbeing of people and the environment are taken into careful consideration.
- Risk Management
 - o To identify, assess and control risks. This includes analysing the value of assets to the business, identifying threats to those assets, and evaluating how vulnerable each asset is to those threats.
- Facilities Management
 - o To manage the physical environment where the Baggage Transport System is located. This includes all aspects of managing the physical environment, for example power and cooling, building access management, workshops and environmental monitoring.
- Compliance Management
 - o To ensure services (asset's functionality), processes and systems comply with enterprise policies and legal requirements.
- Architecture Management
 - o Architecture Management aims to define a blueprint for the future development of the technological landscape, taking into account the service strategy and newly available technologies.
- Application Development
 - o Application Development aims to make available applications and systems, which provide the required functionality for the Baggage Transport System. This process includes the development and maintenance of custom applications as well as the customization of products from software vendors.
- Spare Parts Management;
 - o Spare Parts Management aims to ensure the right balance between being out-of-stock and to avoid unnecessary spare parts stock. Spareparts can become obsolete due to modifications and replacements. Therefore, it is important that the spare parts stock levels are managed actively. Part of this process is the development of the recommended spare parts list, automatic replenishment, managing exchange parts and improvement of spare parts stock based on delivery times and failure probability.

3.5 Demarcation of activities

The Supplier is overall responsible for the functioning of the BTS, whereby the Solution groups are responsible for the functioning of (sub)components. Separate agreements have been entered into with these Solution groups for this purpose. These Solution groups are contracted by the Supplier or by SNBV.

Maintenance and support activities are part of the scope of the activities. Given the technical and substantive expertise which is required for the management and Maintenance of a number of specific parts of the Baggage system, SNBV prescribes a number of specific Solution groups for performing the maintenance and support activities. This concerns the following parts of the Baggage system and Solution groups:

- Controlling software BTS [Vanderlande Controls Support]:
 - o S7 TUBTRAX and Conveyor PLC's;
 - o Pilz safety PLC;
 - o TUBTRAX controllers (TFC, BSC and LON controllers);
 - o Buffer cranes South.
- HBS machines [L3 communications];
- HBS machines [Smiths detection];
- Herberts [Scarabee]:
 - o Controlling software;
- Sorting machines South [Beumer Group].

In addition, Supplier must contract a number of Solution groups itself, either or not prescribed by SNBV.

3.6 Interfaces with other activities (exclusions)

Activities performed by the following Schiphol departments fall outside the scope of the assignment:

1. Day-to-Day Operations (DDO) - Airport Control;
2. Day-to-Day Operations (DDO) - Baggage Operational Support (BOS);
3. Process Development & Capacity (PDC) Management;
4. Support & Resource Allocation (SRA);
5. Asset Management (ASM) – Technical Management Baggage;
6. Project Office Amsterdam Airport Schiphol (PLUS).

3.7 Supporting applications

In support of the requested activities, the Supplier must use, amongst others, the following applications (supplied and maintained by SNBV):

- Maximo - Enterprise Asset Management (EAM);
- IT Service Management (ITSM), this application will be replaced by IBM Control Desk;
- Version Dog: Software Version Management;
- Electronic Document Management System (EDMS);
- TIVOLI (monitoring);
- SPLUNK;
- Intranet AAS/ IT Web shop.

3.8 Anticipated Changes (project-based in nature)

During the contract period, a number of Changes within this Lot, that can be part of the scope of the Provision of Services, are anticipated, and which affect the scope of the assignment. Amongst other things, this comprises but is not limited to the:

- Replacement of lifting aids (1st generation);
- Replacement of servers and Industrial PC's of the cranes in the buffers;
- Replacement of scanners and control pc to read bar codes and identify baggage;
- Replacement/revision of Motor Controls Centres (MCC);
- Replacement/revision of compressors;
- Replacement of Local Motor Starters (LMS);
- Replacement of rail system buffer cranes;
- Replacement of safety system (Pilz);
- Replacement of batteries UPS.

In addition to these anticipated Changes, during the contract period a number of projects will be implemented that affect the baggage system. Amongst other things, this comprises but is not limited to the:

- Hold Baggage Screening (HBS 2020);
- Redevelopment Reclaim 2: Security & Baggage Handling optimisation;
- Capacity increase and redundancy improvement in E-basement, West and D-pier.