

Appendix 13: SNBV Guiding Principles for SSB testing

1. Quality Principles / Guidelines

For this project, the following quality principles/guidelines are applicable:

Quality statement:

'The IT application should meet the needs of our users to achieve their goals with effectiveness, productivity safety and satisfaction in the specified context of use and in any initially unspecified context of use.'

It is particularly important that this apply 'in any initially unspecified context of use', because users regularly use our IT for purposes other than those originally intended.

SNBV has drawn up the following quality assurance guidelines for Self Service Boarding (SSB):

1.1 SNBV expects its suppliers:

- a. to deliver (partial) products that:
 - i. are proven to be suitable for the objective;
 - ii. are proven to comply with the agreements;
 - iii. and can be properly used right away.

(Partial) products may concern both software/hardware components and documents.

1.2 SNBV expects its suppliers:

- a. to test their products themselves to ensure functional correctness within the Schiphol context before submitting them for acceptance;
- b. if they have any questions about relevant Fit Criteria, to ask these questions even if these criteria are not included in the Requirement Specification Document;
- c. to develop and test the integration with the Schiphol systems at Schiphol.

For development purposes, Schiphol offers room in the Test Lab for the installation of hardware and infrastructure with Schiphol systems: *Test environment for Development purposes*.

The Test Lab is a SNBV facility at Schiphol-East, consisting of:

- the building, subdivided into sections in which test setups are installed with peripherals relating to a Schiphol Function, incl. the Boarding function;
- office facilities;
- an IT network infrastructure plus internal and external services (e.g. by ST/SITA);
- access control;
- parking management;
- warehouse;
- data centre (external).

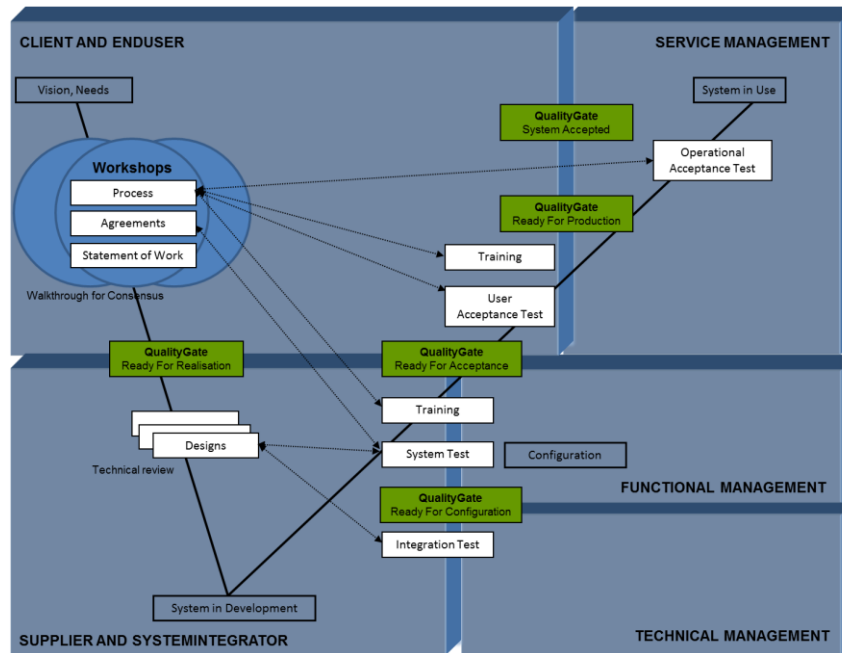
The Test Lab has its own organisation to keep things properly organised and is supplemented by test services provided by specialised companies, relating to, for example, performance, security and usability testing, test coordination, crowd testing, development of simulations, stubs and drivers.

A floor area of 20 m² has been reserved for the supplier of SSB in the Boarding section for the installation of the required hardware, for the purpose of integration testing and for the connection with the SITA peripheral equipment.

1.3 SNBV expects its suppliers:

- a. to have taken measures, and to be able to prove this, that guarantee that SNBV will accept the products and put them into service;
- b. to clarify which measures these are (testing, reviews, etc.);
- c. to explain the results of the measures;
- d. and to state with regard to which areas the supplier still has concerns about quality.

The supplier must prepare a quality strategy for the software and hardware, which should largely match the following model, substantiated with arguments if there are any deviations



In other words:

- The supplier must be able to present a quality strategy, preferably in the shape of a quality plan, that is in line with the quality expectations of SNBV, as described in this Requirement Specification Document.
- The supplier must provide input and attend retrospectives on the effectiveness of the quality strategy and the coordination of suggestions for improvement of both the product and the process.

1.4 SNBV expects its suppliers:

- a. to install test setups in the Test Lab, integrated with the systems of the airport and separated from the development line, so that the changes to both the system itself and to the connected Schiphol systems can be accepted: Test environment for Acceptance purposes;
- b. and that these remain available at the Test Lab for the acceptance of future changes once it has been decided to put the systems into service throughout Schiphol.

In the reserved space of 20 m² in the Boarding section, space is reserved for the installation of a second test setup and the connection to the SITA peripheral equipment for acceptance testing.

1.5 SNBV expects its suppliers:

- a. to take responsibility in ensuring that all partial products continue to comply with the agreements during their design, development and implementation;
- b. to be aware that the agreements may change during the design, development and implementation as a result of new insights from either SNBV or the supplier;
- c. to ensure that enough tolerance is reserved for this, both in terms of budget and time;
- d. and to ensure that the partial products continue to comply with the most recent agreements.

During the development and implementation, the supplier may expect SNBV to take responsibility for ensuring that partial products continue to be assessed based on the needs.

- e. To this end, it will also provide the supplier with specifications they need, the systems to be linked (architecture, interfaces) and known limitations, which the supplier can then use.

1.6 SNBV expects its suppliers:

- a. to clearly indicate in the quality strategy what they expect from SNBV in terms of:
 - i. contact times during the preparation, development and implementation of the changes in the SSB context;
 - ii. SNBV's involvement in their own tests and review opportunities;
 - iii. infrastructure and other Test Lab facilities;

- b. to be involved with the tests by SNBV and Stakeholders, including Airlines, and to have enough time available for this:
 - i. for information on the use of SSB;
 - ii. for feedback and analysis of findings from the tests, e.g. by analysing log files;
 - iii. it must be possible to provide the feedback immediately after the test;
 - iv. correcting of errors/retesting.

1.7 SNBV expects its suppliers:

SNBV uses Quality Gates at handover times with the aim of limiting the number of points for attention/outstanding items and maintaining a grip on the performance of the Supplier.

- a. SNBV expects its suppliers that they accept that the payments are linked to the Quality Gate times.

1.8 SNBV expects its suppliers:

- a. to, early on, provide an insight into which quality characteristics (ref: ISO 25010) they are confident about through their own test results and/or references, or whether they expect that SNBV will have to spend time checking them.

The supplier must indicate in the quality strategy which quality characteristics they will focus on themselves, and which characteristics they expect SNBV will have to confirm.

For every release candidate, the supplier must schedule a walkthrough, based on its own test results and a demo of the functioning and performance of the SSB function prior to the acceptance phase.

1.9 SNBV expects its suppliers:

As soon as SNBV realises that it will not be possible to accept the product, the tests regarding acceptance will be formally ceased until the supplier proves that the product is worthy of acceptance again.

- a. SNBV will stop the tests after 5 findings have been labelled as severity category 'critical' or 20 findings have been labelled 'severe'.

1.10 SNBV expects its suppliers:

- a. to provide both the SNBV administrator and administrators of the stakeholders with product training in the administration of the SSB system and with documentation, resulting in the administrators confirming that they are independently capable of performing their administrative function.

Part I

The minimum of products that SNBV expects to receive from the supplier are:

Product	Quality measure
Action plan (supplier + SNBV)	Technical review by the Supplier for SNBV prior to system development
Quality plan (supplier)	Walkthrough by the Supplier for SNBV. Periodic retrospectives on the effectiveness of the quality strategy
Implementation plan (supplier)	Technical review by SNBV prior to system acceptance
Change proposals (supplier)	Walkthrough by the Supplier for SNBV prior to system development Demo by the Supplier for SNBV prior to acceptance
Functional specifications (supplier)	Walkthrough by the Supplier for SNBV prior to system development
Architectural design (supplier)	Technical review by SNBV prior to system development
Interface specification (supplier)	Technical review by SNBV prior to system integration
Documentation (supplier)	Informal review by SNBV prior to commissioning
Administrator Manual (supplier)	Informal review by SNBV prior to commissioning
Supplier System (Integration) Test Plan (supplier)	Informal review by SNBV prior to system integration
<i>SNBV Acceptance Test Plan (SNBV)</i>	<i>Informal review by SNBV</i>
Correctly functioning system (supplier)	System test and integration test by the Supplier prior to system acceptance Contract Acceptance Test by SNBV <ul style="list-style-type: none"> walkthrough (Demo) by the Supplier for SNBV to demonstrate that all the agreements have been implemented and that the acceptance environment is ready; walkthrough of system (integration) test results by the Supplier for SNBV to demonstrate that the test objectives have been met; operational acceptance test by the Supplier and SNBV, starting at commissioning.
Progress report (supplier, SNBV)	Informal review by SNBV project manager during system development and system acceptance
System (Integration) Test Report (supplier)	Walkthrough by the supplier for SNBV prior to the acceptance phase
Acceptance Test Report (SNBV)	Walkthrough by SNBV for the Supplier and SNBV

Part II

Severity category	Classification of findings
1-Critical	<p><i>Documentation:</i> Finding will affect related (intermediate) products and will lead to an (intermediate) product that cannot be used</p> <p><i>System:</i> The system:</p> <ul style="list-style-type: none"> • corrupts data or loses data; • or provides an incorrect output, which directly affects the progress of the business process; • or functions in such a way or lacks required functionality so that there is a high risk of production deadlines being missed; • or leads to shortcomings with regard to the quality of the final product.
2-Severe	<p><i>Documentation:</i></p> <ul style="list-style-type: none"> • Finding will affect (intermediate) follow-up products. • Information required to perform a full assessment is lacking. • Information is ambiguous. <p><i>System:</i> The system:</p> <ul style="list-style-type: none"> • leads to shortcomings that disrupt the business process; • or affects the business process and the costs in such a way that there is a risk of production deadlines being missed; • or lacks required functionality so that there is a risk of production deadlines being missed; • or leads to shortcomings with regard to the quality of the final product.
3-Temporarily tolerable	<p><i>System:</i> The system:</p> <ul style="list-style-type: none"> • limits the productivity of the users, but does not disrupt the progress of the business process; • or lacks required functionality, limiting the productivity of the users, but does not disrupt the progress of the process.
4-Minor	<p><i>Documentation:</i></p> <ul style="list-style-type: none"> • Finding will have little effect on (intermediate) follow-up products. • Style, formatting and text suggestions. <p><i>System:</i> The system:</p> <ul style="list-style-type: none"> • A less important part of the system does not comply with the requirements specified (functional and/or technical performance). • Alternatively, the system contains incorrect spelling in the user dialogues.
5-Improvement	An improvement of the system requested by SNBV

Part III

Correctly functioning system

During the development of the system, the following exit criteria apply to the Realisation →
Acceptance handover moment:

- All predetermined system (integration) tests have been performed and completed.
- The number of findings per severity category at handover is no more than:

Category	1-Critical	2-Severe	3-Temporarily tolerable	4-Minor	5-Improvement
Maximum number	0	0	5	20	To be agreed

Rollout in the Terminal

All predetermined random tests have been performed and findings have been corrected.

System in production

The following acceptance criteria apply to putting the product into operation:

- All predetermined test levels have been completed and concluded in accordance with the exit criteria.
- The number of findings per severity category when putting the product into operation (transition from environment A to environment P) is no more than:

Category	1-Critical	2-Severe	3-Temporarily tolerable	4-Minor	5-Improvement
Maximum number	0	0	5	10	To be agreed

System accepted

The following apply to the system:

- Shortcomings with severity category 1 and 2 will result in the system not being accepted.
- Shortcomings with severity category 3 to 5 can be considered outstanding items in consultation with the client:

Category	1-Critical	2-Severe	3-Temporarily tolerable	4-Minor	5-Improvement
Maximum number	0	0	To be agreed	To be agreed	To be agreed