UPU-Agreed Measurement Systems External Audit 2018

Universal Postal Union
International Bureau

Audit Report March 2019

pwc

1. Executive Summary

UPU GMS has been running Quality of Service measurements since 2009, starting with 21 countries. This number rose over the years and ended up to 61 in 2018. Transparency and confidence in the reliability of the GMS postal measurement systems (including data delivered by the UNEX system for this purpose) will be increasingly important going forward in assessing the quality of postal services globally.

As a proven and reputable audit services provider, PwC was pleased to support UPU with this challenge, leveraging our extensive experience in the postal industry, particularly in quality monitoring and auditing.

In agreement with the UPU Quality Measurement Programme Manager we performed audit activities for the UPU-Agreed Measurement Systems under the UPU Global Monitoring System (GMS) project with following scope, setting a particular focus on RFID:

- RFID diagnostic monitoring
- Panel Management Update Testing
- Calculation and reporting of Quality of Service Results

As part of the audit, we defined a working program for RFID and applied it in the performed site visits at the UPU in Bern, Switzerland, at LYNGSÖE in Aars, Denmark as well at Correos Spain in Madrid, Spain and kyubisystem in Barcelona, Spain. Further audit procedures were conducted remotely, i.e., the follow ups at IPC, Quotas, TNS Kantar and LYNGSÖE as well as the calculation/recalculation reporting of quality of service results.

Based on our procedures as described in this report, nothing came to our attention that caused us to believe that the activities performed by UPU GMS, by UNEX UPU TD measurement system or by the service providers in the audited areas were not compliant with the UPU – GMS Technical Design document.

We noted that the UNEX UPU TD measurement system is affected by large amount of test items not reaching destination even for long period of time in 2018, despite being inducted accordingly to the the UPU – GMS Technical Design document. The number of valid test items going below the recommendations of the Technical Design influences the performance measurement of the receiving countries.

In some additional areas we identified minor differences with no relevant impact on the measurement results, we refer to them as findings with partial compliance. Some of those points, in particular in the panel management (retention and training of panellists), are related to conscious decisions made to improve operational processes that are not reflected yet in the UPU – GMS Technical Design document. Other points concern training and retention of panellists.

This report has been prepared solely for the use of UPU and should not be quoted in whole or in part without our prior written consent. No responsibility to any third party is accepted as the report has not been prepared for, and is not intended for, any other purpose. The procedures performed by us do not constitute either an audit or a review made in accordance with International Standards on Auditing or International Standards on Review Engagements. Consequently, we do not express any assurance on the information included in this report.

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2. Scope of our work

The main objective of the external audit was to assess whether the methodology, its implementation and the calculation of QS measurement results by the two UPU-agreed QS measurement system providers were compliant with the UPU – GMS Technical Design document in 2018.

The scope covered following areas and components:

- LYNGSÖE - RFID audit and Follow Up
- Quotas – Follow Up of 2017 audit
- TNS Kantar – Follow Up of 2017 audit
- IPC –Follow Up of 2017 audit
- UPU – RFID audit and Follow Up of 2017 audit
- Correos Spain and Kyubisystems – Site Survey and RFID audit
- Calculation and Reporting of Quality of Service results

It also covered the following areas of the UPU – GMS Technical Design document:

- Calculation and reporting of quality of service results
- Panel Management
- Quality control and validation
- RFID Diagnostic Monitoring

3. Audit Methodology and Process

Based on our postal measurement experience we developed specific audit procedures that we applied in this engagement.

We performed an assessment of the current postal measurement procedures that will allow UPU to understand the quality of service they are getting from their service providers in comparison with what is required by the UPU – GMS Technical Design document. We also provide clear insight on where improvements are needed and clear enforceable recommendations.

Our approach is:

- Independent
- End-to-end and comprehensive
- Reliable and robust
- Statistically accurate
- Quality-driven and standardised
- Tested and proven over many years
- ISO9001 consistent

In our approach, we leveraged on local teams already experienced with UPU and IPC.

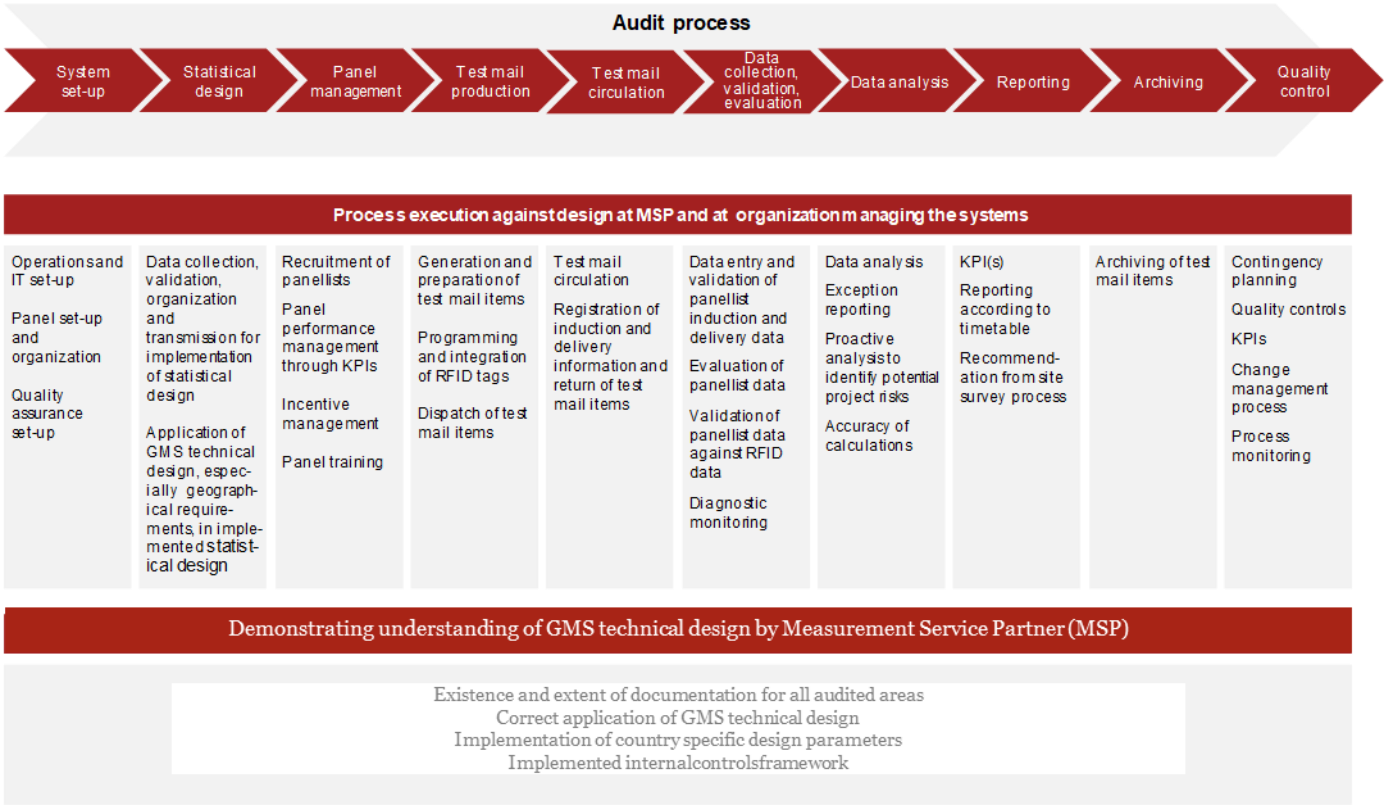
While the methodology is standardised, PwC recognises that each client's environment and requirements are different. Hence, we customised it for this specific task, focusing on the four areas in respect of compliance to the UPU – GMS Technical Design document:

- Calculation and reporting of quality of service results
- Panel Management
- Quality control and validation
- RFID Diagnostic Monitoring

Our methodology was underpinned by the following tasks:

- Understanding the requirements of the UPU – GMS Technical Design document
- Assessing the risks and mapping all elements in focus into our specific audit process (ref. diagram 1). We produced a viable, solid and efficient work plan
- Collect information in appropriate mode: we know what should exist and how the existing can be assessed.
- Obtaining during the UPU and IPC visits information and documentation by exchanging experience with postal measurement management with like-minded PwC people.
- Performing efficient walkthroughs on site and remotely with very experienced and skilled individuals speaking to the key service supplier people.
- Understanding deviations and confirming them with follow ups. Performing recalculations wherever appropriate, leveraging on our specific tools for this purpose.
- Formulating preliminary reports that can be validated.
- Producing a final report that is adequate for management and for those who have to work with it.
- Findings are formulated in a form that will help follow-up actions and improvements.

This methodology will also be applied in the following years, confirming situation and progress, leveraging on all structured experience from the first year.


Audit process
System set-up
Statistical design
Panel management
Test mail production
Test mail circulation
Data collection, validation, evaluation
Data analysis
Reporting
Archiving
Quality control
Process execution against design at MSP and at organization managing the systems
Operations and IT set-up
Panel set-up and organization
Quality assurance set-up
Data collection, validation, organization and transmission for implementation of statistical design
Application of GMS technical design, especially geographical requirements, in implemented statistical design
Recruitment of panellists
Panel performance management through KPIs
Incentive management
Panel training
Generation and preparation of test mail items
Programming and integration of RFID tags
Dispatch of test mail items
Test mail circulation
Registration of induction and delivery information and return of test mail items
Data entry and validation of panellist induction and delivery data
Evaluation of panellist data
Validation of panellist data against RFID data
Diagnostic monitoring
Data analysis
Exception reporting
Proactive analysis to identify potential project risks
Accuracy of calculations
KPI(s)
Reporting according to timetable
Recommendation from site survey process
Archiving of test mail items
Contingency planning
Quality controls
KPIs
Change management process
Process monitoring
Demonstrating understanding of GMS technical design by Measurement Service Partner (MSP)
Existence and extent of documentation for all audited areas
Correct application of GMS technical design
Implementation of country specific design parameters
Implemented internal controls framework

4. Audit results

4.1. Results per audited area

Based on our procedures performed, nothing came to our attention that caused us to believe that the activities performed by UPU GMS, by UNEX UPU TD measurement system or by the service providers in the audited areas were not compliant with the UPU – GMS Technical Design document.

The following table provides an overview of the results over the audited areas. When we noted at least one non-compliant finding, we marked the area as red, otherwise it is marked yellow when there was at least one partial compliant finding. Areas are marked as green when no compliance issues were detected in the given area. The numbers included in the table below indicate how many findings were identified per measurement area (in total 8, see detailed list in chapter 4.2).

Measurement Areas	UNEX UPU TD meas.	UNEX UPU TD meas. – PMC – TNS	UPU GMS meas.	UPU GMS - PMC -Quotas	Correos Spain / kyubisystem	LYNGSÖE
A. Statistical design (sample design)					N/A	N/A
B. System configuration and inputs					N/A	N/A
C. Panel management		2		1	N/A	N/A
D. Mails production					N/A	N/A
E. Mails circulation (distribution/sending/ receiving)					N/A	N/A
F. Data collection, validation and processing					N/A	N/A
G. Transit time calculations					N/A	N/A
H. Statistical Analysis					N/A	N/A
I. Reporting					N/A	N/A
J. Archiving					N/A	N/A
K. Quality Control					N/A	N/A
L. RFID Diagnostic Monitoring system						

Compliance rating: Compliant Partially compliant Non-compliant

4.2. Detailed findings

The following list shows the current identified and open findings.

Finding ID	Area ID	Area Description	Assessment Area	Compliance	Issue description	Significance	Recommendation / Assessment results
1	**C1**	Panellists' recruitment questionnaires, to ensure that UPU-specific recruitment requirements are satisfied	**UNEX UPU TD measurement - PMC - TNS**	Partially Compliant	**Panellists' retention period** The panellists were not informed, as part of the hiring process, about the requirement that they should be willing to participate for at least six months. This is not fully in accordance with chapter 7.2 of the UPU – GMS Technical Design document: "In all cases, panellists: [….] should be willing to participate for at least six months;" However, we noted that the approach generally used to reduce the risk of not having the necessary number of panellists is not addressed by formally requesting the panellist to commit for at least six months but by having and managing backup panellists.	Low	We recommend either implementing a clause in the recruitment questionnaire to ensure the panellist is aware that he is expected to participate for at least six months or agreeing with UPU on updating the formulation of the technical design. The UNEX UPU TD measurement system and TNS do not fully agree with the recommendation as they express concerns because being formally bound by such a retention requirement may put off panellists of staying at least six months on the panel. Therefore, we suggest to the UPU GMS measurement system and to UNEX UPU TD measurement system to formally agree on the next steps and assessing whether the recommendation needs to be implemented or the formulation of the TD can be adjusted.

Finding ID	Area ID	Area Description	Assessment Area	Compliance	Issue description	Significance	Recommendation / Assessment results
2	**C6**	Process of panellists' training	**UNEX UPU TD measurement - PMC - TNS**	Partially Compliant	**Training of Panellists** There was no formalised way to assess whether panellists have been sufficiently trained, before starting to act as a panellist. However, we noted that the panellist performance was monitored and that in case of low performance the panellist was trained again. The UPU – GMS Technical Design document (chapter 7.3) mentions that "training should confirm that the panellist has understood the task involved and is able to carry it out as instructed" In addition, the documented training program for newly recruited panellists does not cover the topics on how to indicate the condition of the item received (envelope damaged, address label damaged or not fully legible, transponder missing, etc.). This is not fully in line with UPU – GMS Technical Design document (chapter 7.3.2) where it states "instructions should indicate: […] how to indicate the condition of the item received (envelope damaged, address label damaged or not fully legible, transponder missing, etc.)".	Low	We recommend implementing an assessment process to ensure the knowledge of the panellist is tested before involving her/him as an active panellist. In addition we recommend adding to the instructions provided to panellists a section on how to indicate the condition of the item received. The UNEX UPU TD measurement system and TNS do not fully agree with the recommendation as they express concerns because they believe that training guidelines (via video, long-form written and FAQs) provide a comprehensive introduction to panellist tasks. In addition, they monitor their panellists to confirm that they understand their duties. If deviations are observed, panellists will be retrained or dropped as appropriate. Therefore, we suggest to the UPU GMS measurement system and to UNEX UPU TD measurement system to formally agree on the next steps and assessing whether the recommendation needs to be implemented or the

Finding ID	Area ID	Area Description	Assessment Area	Compliance	Issue description	Significance	Recommendation / Assessment results
							formulation of the TD can be adjusted.
3	**C1**	Panellists' recruitment questionnaires, to ensure that UPU-specific recruitment requirements are satisfied	**UPU GMS - PMC -Quotas**	Partially Compliant	**Panellists' retention period** The panellists were not informed, as part of the hiring process, about the requirement that they should be willing to participate for at least six months. This is not fully in accordance with chapter 7.2 of the UPU – GMS Technical Design document: "In all cases, panellists: [….] should be willing to participate for at least six months;" However, we noted that the approach generally used to reduce the risk of not having the necessary number of panellists is not addressed by formally requesting the panellist to commit for at least six months but by having and managing backup panellists.	Low	We recommend either implementing a clause in the recruitment questionnaire to ensure the panellist is aware that he is expected to participate for at least six months or agreeing with the UPU on updating the formulation of the technical design.
4	**-**	**-**	**UNEX UPU TD measurement – UPU GMS**		**Test items not reaching destination** We noted that the UNEX UPU TD measurement system was affected by a large amount of test items not reaching destination even for a long period of time, despite being induced accordingly to the the TD document. In particular no items at all induced between June 2018 and October 2018 reached the destination countries: Starting in November 2018 items were registered again: 12 out of 1178 in November 2018 and 33 out of 1141 in December 2018. Since the items were produced in line with the TD document and there are no indications they were not induced, this is not considered as a non compliance, but the number of valid test items going below the recommendations of the TD is influencing the performance measurement of the receiving countries. No similar pattern for the UPU GMS has been identified. The issue is known to UNEX UPU TD measurement and to UPU GMS but no root cause has been yet identified.	High	It is recommended investigating on the reasons for missing travelling items involving the DO. We suggest that the investigation is performed either jointly or managed by the POC.


Compliance rating:
Compliant
Partially compliant
Non-compliant
Significance rating:
Low
Medium
High

Annexes

A1 Rating Criteria

Compliance rating criteria

The compliance rating indicated the compliance of the different assessment areas with the UPU – GMS Technical Design document.

Non-compliant means a clear violation of the UPU – GMS Technical Design document.

Partially compliant means a minor deviation from the UPU – GMS Technical Design document with no expected impact on the final measurement results. The significance rating provides indication on the severity and on the priority. Partial compliance can be related to

- a decision to deviate in order to improve quality in certain areas,
- a different interpretation of the UPU – GMS Technical Design document or
- a minor mistake in applying the rules.

Compliance rating:

Compliant
Partially compliant
Non-compliant

Significance rating criteria

The significance is an estimation of the impact on the measurement of the identified issue.

- Low means no impact on the measurement results.
- Medium means an impact on the measurement results that should be analyzed, but expectation is that the impact does not change the measurement.
- High means that the measurement result is affected and the implications should be analyzed in detail.

Significance rating:

Low
Medium
High

A2 Field work

LYNGSÖE

Date	26.06.2018 (Follow Up: 18.01.2019)
Location	LYNGSÖE in Aars, Denmark and remotely via E-Mail/questionnaire
Attendees	Orce Kitanov (PwC Switzerland) Patrick Morandi (PwC Switzerland) Alexandros Kopsidis (PwC Greece) Robert Michal Zalewski (LYNGSÖE) Jesper Boller (LYNGSÖE) Erik Martin Lilienthal Bandholm (LYNGSÖE)
Covered areas	Via meeting, the following areas were assessed: • RFID Diagnostic Monitoring System set-up (guidelines, technical setup) • RFID Data integrity (equipment, data loss, time stamps, manipulation) • Incident Management (process, tools)

Quotas

Date	16.01.2019
Location	Remotely via E-Mail/questionnaire
Attendees	Patrick Morandi (PwC Switzerland) Daniel Kulms (Quotas)
Covered areas	Via questionnaire, the following areas were assessed: • Panel management • Mail production • Mails circulation (distribution / sending / receiving) • Data collection, validation and processing • Archiving • Quality Control

TNS Kantar

Date	15.02.2019
Location	Remotely via E-Mail/questionnaire
Attendees	Francesco Gallerani (PwC Belgium) Sebastian Mann (TNS Kantar)
Covered areas	Via questionnaire, the following areas were assessed: • Panel management • Mail production • Mails circulation (distribution / sending / receiving) • Data collection, validation and processing • Archiving • Quality Control

IPC

Date	20.02.2019
Location	Remotely via E-Mail/questionnaire
Attendees	Francesco Gallerani (PwC Belgium) Bert Seghers (IPC) Ingrid De Roover (IPC)
Covered areas	Via questionnaire, the following areas were assessed: • Statistical design • Panel Management • Mails production • Mails circulation (distribution / sending / receiving) • Data collection, validation and processing • Reporting • Archiving • Quality Control

UPU

Date	19.01.2019, 01.03.2019, 12.03.2019
Location	UPU in Bern, Switzerland
Attendees	Patrick Morandi (PwC Switzerland) Angelo Mathis (PwC Switzerland) Constantinos Siniolakis (PwC Greece) Giorgos Manginas (PwC Greece) Julius Tsuwi (UPU) Cesar Allende (UPU)
Covered areas	Via meeting, the following areas were assessed: • Statistical design (sample design) • Panel management • Mail production • Mails circulation (distribution / sending / receiving) • Data collection, validation and processing • Reporting • Archiving • Quality control • RFID Diagnostic Monitoring System set-up (guidelines, technical setup) • RFID Data integrity (equipment, data loss, time stamps, manipulation) • Incident Management (process, tools) • RFID read rate calculation • Calculation and reporting of quality of service results

Correos Spain and kyubisystem

Date	06.02. – 07.02.2019
Location	Correos in Madrid, Spain and kyubisystem in Barcelona, Spain
Attendees	• Angelo Mathis (PwC Switzerland) • Deniz Sari (PwC Switzerland) • Giorgos Manginas (PwC Greece) • Juan Ramon de las Heras Fernandez (Correos Spain) • David Coso (Correos Spain) • David Lozano (kyubisystem) • Eduardo Pérez (kyubisystem) • David Morales (kyubisystem)
Covered areas	Via meeting, the following areas were assessed: • Site survey coverage • On site installation compliance • Gate/handover point coverage by proper equipment • Change management process to subsequent installation changes • Physical security measures • Data integrity, data access • Monitoring and incident management for equimpent in use • Documentation of site acceptance tests • RFID Diagnostic Monitoring System set-up (guidelines, technical setup) • RFID Data integrity (equipment, data loss, time stamps, manipulation) • Incident Management (process, tools)

Follow-ups

Activities	Follow-ups of the on-site visits and of the analysed documents have been performed by e-mail and phone conferences between January and March 2019.
Attendees	Julius Tsuwi (UPU) Bert Seghers (IPC) Sebastian Mann (TNS Kantar) David Lozano (kyubisystem) Daniel Kulms (Quotas)