Belgisch Instituut voor
postdiensten en telecommunicatie

Mededeling van de Raad van het BIPT van 3 oktober 2025 over de audit van de interne en externe meetsystemen van bpost voor de controle van de verzendingstermijnen

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INHOUDSOPGAVE

1. Context en beschrijving van de opdracht 3
1.1. Retroacta 3
1.2. Juridisch kader van de opdracht 3
1.3. Beschrijving van de auditopdracht 4
1.3.1. Het externe BELEX-meetsysteem voor de prioritaire en niet-prioritaire stukpost-postzendingen 4
1.3.2. Het interne meetsysteem voor de binnenlandse aangetekende zendingen en stukpost-postpakketten 5
2. De bevindingen en de aanbevelingen van de audit 6
3. Conclusie 7

1. Context en beschrijving van de opdracht

1.1. Retroacta

1. Het BIPT heeft door de consultants Analysys Mason en PLCWW een audit laten uitvoeren op de meetsystemen van bpost. Deze audit liep van augustus 2024 tot februari 2025. Deze meetsystemen zijn erop gericht de verzendingstermijnen van (bepaalde) poststukken en postpakketten te controleren (zie infra).

2. Op 6 maart 2025 werd het auditrapport van Analysys Mason (zie bijlage) overgemaakt aan bpost voor een consultatie m.b.t. de vertrouwelijkheid van bpost. Bpost heeft het BIPT op 7 april 2025 de vertrouwelijke passages meegedeeld. Bpost gaf aan dat het rapport verder geen vertrouwelijke informatie bevat (noch voor bpost noch voor diens aannemer Spectos).

3. Op 6 mei 2025 werd er een brief naar bpost verzonden waarin bpost gevraagd wordt om een actieplan op te stellen en binnen de maand dit actieplan aan het BIPT over te maken. Bpost heeft om uitstel gevraagd tot 27 juni 2025. Het BIPT is akkoord gegaan met deze verlenging van de reactietermijn. Bpost heeft het actieplan van bpost op 27 juni 2025 aan het BIPT overgemaakt.

1.2. Juridisch kader van de opdracht

4. Conform het tweede beheerscontract tussen de Staat en bpost betreffende de universele postdienstverplichtingen voor de periode 2024-2028 (goedgekeurd bij koninklijk besluit van 9 november 2023), de wet van 26 januari 2018 betreffende postdiensten en het koninklijk besluit van 14 maart 2022 betreffende de postdiensten,[1] controleert het BIPT de onderstaande meetinstrumenten die gebruikt worden om de verzendingstermijnen van de volgende vier diensten te meten, die deel uitmaken van het kleingebruikerspakket:

   - de binnenlandse prioritaire stukpostbriefwisseling;
   - de binnenlandse niet-prioritaire stukpostbriefwisseling;
   - de binnenlandse aangetekende stukpostzendingen;
   - de binnenlandse stukpostpostpakketten.

5. De te controleren meetinstrumenten vinden hun oorsprong in het wettelijke kader betreffende de postsector en meer specifiek in de volgende artikelen:

   - artikel 46, § 1 van het koninklijk besluit van 14 maart 2022 betreffende de postdiensten;
   - artikel 5.1, 5.2 en 5.3 van het tweede beheerscontract tussen de Staat en naamloze vennootschap bpost van publiek recht betreffende de universele postdienstverplichtingen voor de periode 2024-2028.

[1] Het Koninklijk Besluit van 14 maart 2022 betreffende de postdiensten werd in het Belgische Staatsblad van 18 maart 2022 gepubliceerd.

6. De verzendingstermijnen worden gemeten om te verifiëren of gebruikers toegang hebben tot kwaliteitsvolle, regelmatige en betrouwbare dienstverlening. Dit instrument moet ertoe bijdragen dat de gebruikers toegang blijven hebben tot een kwalitatieve universeledienstverlening van bpost.

1.3. Beschrijving van de auditopdracht

7. Het BIPT heeft door Analysys Mason en PLCWW een audit laten uitvoeren op de meetsystemen van bpost. Deze audit liep van augustus 2024 tot februari 2025.

8. De audit heeft betrekking op de volgende twee meetsystemen van bpost:

   - het externe BELEX-meetsysteem voor de prioritaire en niet-prioritaire stukpostpostzendingen;
   - het interne bpost-meetsysteem voor de binnenlandse aangetekende zendingen en stukpost-postpakketten.

1.3.1. Het externe BELEX-meetsysteem voor de prioritaire en niet-prioritaire stukpost-postzendingen

9. Het tweede beheerscontract en de postwetgeving bepalen dat de naleving van de verzendingstermijnen wordt gemeten, onder controle van het BIPT, volgens de CEN-norm EN 13850[2] voor de prioritaire zendingen enerzijds en volgens de CEN-norm EN 14508[3] voor de niet-prioritaire zendingen anderzijds.

10. Het meetsysteem wordt beheerd door het externe studiebureau Spectos GmbH, gevestigd te Dresden in Duitsland. Sinds 1 maart 2012 is Spectos gestart met het meten van zowel de prioritaire als niet-prioritaire postzendingen. Dit meetsysteem heet het BELEX-meetsysteem.

11. Het BELEX-meetsysteem is gebaseerd op de Europese norm EN 13850 voor de prioritaire zendingen en de EN 14508 voor de niet-prioritaire zendingen. Het BELEX-meetsysteem werkt via het verzenden van testbrieven door enquêtemedewerkers. Deze testbrieven moeten representatief zijn voor de echte poststromen van bpost. Met deze testbrieven wordt berekend hoeveel zendingen op tijd worden bezorgd, dit wil zeggen één dag nadat de brief vóór het laatste lichtingsuur is gepost voor de prioritaire brieven en drie dagen voor de niet-prioritaire brieven.

12. In de audit wordt nagegaan of het meetsysteem voldoet aan de bepalingen van de Europese normen EN 13850 en EN 14508. Ook werd een verificatie gedaan van de realmailstudie[4] die door bpost tweejaarlijks dient uitgevoerd te worden.

[2] CEN EN 13850:2020 "Postdiensten - Kwaliteit van diensten - Meting van de overkomstduur van terpostbezorging tot en met aflevering op adres van losse priority post en losse first class post".
[3] CEN EN 14508:2016 "Postdiensten - Kwaliteit van diensten - Meting van de overkomstduur van losse niet-prioritaire post en losse tweede-klassepost".
[4] Een analyse van de werkelijke poststromen en de karakteristieken ervan om te garanderen dat de onderliggende steekproef zo nauw mogelijk de werkelijkheid benadert.

13. De audit heeft met name de volgende elementen geverifieerd:
    - het statistische ontwerp;
    - de gebruikte methode;
    - de real-mailstudie;
    - de resultaten;
    - de audit van het panel inclusief de instructies gegeven aan de enquêtemederwerkers;
    - de interne kwaliteitscontroles.

1.3.2. Het interne meetsysteem voor de binnenlandse aangetekende zendingen en stukpost-postpakketten

14. Het tweede beheerscontract tussen de Staat en bpost betreffende de universele postdienstverplichtingen voor de periode 2024-2028 en de postwetgeving, stipuleren dat de naleving van de verzendingstermijnen voor binnenlandse aangetekende zendingen en stukpost-postpakketten wordt gemeten volgens een methode vastgelegd tussen het BIPT en bpost, vastgelegd in een protocol.[5]

15. In tegenstelling tot het externe meetsysteem (zie punt 1.3.1.) worden voor het meten van de verzendingstermijnen via het interne meetsysteem geen representatieve testzendingen gebruikt, maar wordt gebruikgemaakt van de gegevens afkomstig van de echte poststromen. De meting gebeurt door gebruik te maken van de streepjescodes die vermeld zijn op de aangetekende zendingen en pakjes (het track & trace systeem van bpost). De meting wordt in concreto gebaseerd op een vergelijking van de afgiftedatum met de datum van bestelling door middel van het scannen van de streepjescode op de aangetekende zendingen en stukpost-postpakketten. De meting heeft betrekking op de stukpostzendingen die afgegeven worden aan het loket van een postkantoor of een postaal servicepunt.

16. Voor het definiëren van dit meetsysteem werd op basis van artikel 5 van het tweede beheerscontract betreffende de universele postdienstverplichtingen voor de periode 2024-2028, in juni 2018 een protocol gesloten tussen het BIPT en bpost betreffende de binnenlandse aangetekende stukpostzendingen en de binnenlandse stukpost-postpakketten.

17. Dit protocol is opgebouwd rond de volgende zeven elementen:
    - de scan bij afgifte;
    - de scan bij bestelling;
    - de controle van de resultaten;
    - de verificatie via testzendingen;
    - de methode zal in overeenstemming zijn met het onderstaande technische rapport van de CEN met als referentie TR 15472;
    - de force majeure gebeurtenissen;
    - de rapportering.

18. De audit heeft enerzijds als doel om na te gaan of het meetsysteem in lijn is met het Europese technische rapport van de CEN met als referentie TR 15472 ('Postal Services – Measurement of transit time for parcels by the use of a track and trace system') en anderzijds of de verplichtingen betreffende het protocol zijn nagekomen.

[5] Protocol gesloten tussen het BIPT en bpost inzake de kwaliteitsmeting op basis van artikel 5 van het vijfde beheerscontract betreffende de binnenlandse aangetekende stukpostzendingen en de binnenlandse stukpost-postpakketten.

2. De bevindingen en de aanbevelingen van de audit

19. De audit brengt 14 items in kaart waar de processen van bpost niet volledig conform zijn met de vereisten gedefinieerd in de Europese standaarden of het protocol.

20. De niet-conforme items zijn ingedeeld op basis van hun geschatte zekerheid en de impact op de resultaten m.b.t. de kwaliteit van de dienstverlening.

    Zekerheid wordt als volgt ingedeeld:
    - Zeker: er is zekerheid dat er een probleem is, bijvoorbeeld omdat het niet in overeenstemming is met een van de normen;
    - Onzeker: het is niet zeker of er een probleem is of niet.

    Impact wordt als volgt ingedeeld:
    - Hoog: er wordt verwacht dat er een materiële impact is op de gemeten kwaliteit van de dienstverlening die worden gemeten als het probleem wordt bevestigd;
    - Laag: er wordt verwacht dat er geen materiële impact is op de gemeten kwaliteit van de dienstverlening als het probleem wordt bevestigd;
      Onbekend: de materialiteit van de impact op de gemeten kwaliteit van de dienstverlening kan niet beoordeeld worden als het probleem wordt bevestigd.

21. Het integrale auditrapport is opgenomen als bijlage 1 bij deze mededeling en bevat (i) een beschrijving van de vastgestelde niet-conformiteiten, (ii) een beschrijving van de verwachte impact per niet-conformiteit en (iii) aanbevelingen per niet-conformiteit voor de behandeling.

3. Conclusie

22. Het BIPT heeft aan bpost gevraagd om een actieplan op te stellen op basis van de door de audit vastgestelde niet-conformiteiten (zie randnummer 19), waarbij rekening gehouden wordt met alle aanbevelingen die Analysys Mason heeft gemaakt in het auditrapport.

23. Het BIPT zal het actieplan van bpost betreffende de auditbevindingen opvolgen en zo nodig een opvolgingsaudit organiseren om te waken over een correcte en tijdige implementatie ervan.

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Bijlage 1: De niet-vertrouwelijke versie van het auditrapport van Analysys Mason m.b.t. de kwaliteit van de meetsystemen van bpost

analysys mason

Report for the Belgian Institute for Postal Services and Telecommunications (BIPT)

Audit of the quality-of-service measurement systems of bpost – final report

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Contents

1 Executive summary 1

2 Introduction 3
2.1 Scope of our assignment 3
2.2 Remainder of this document 3

3 Status of the recommendations stemming from the 2018 audit 5
3.1 2018 audit findings and the latest status prior to the 2024 audit 5
3.2 2018 audit finding 5.2: data validation 5
3.3 2018 audit finding 5.8: quality control over the internal track-and-trace system and transit time calculation 9

4 Observations and recommendations from the 2024 audit 11
4.1 The real mail study may not be compliant with the CEN 13850 12
4.2 Location of panellists within Belgium 14
4.3 No corrective weighting applied 15
4.4 Monthly data cut-off on the tenth working day of next month 16
4.5 The number of items dudded due to clustering raises potential concerns about the design of BELEX 17
4.6 There is risk the workload of some panellists exceeds the standard 18
4.7 The lack of a clear process for reporting of panellist identification by bpost staff raises the risk that identified panellists stay in the panel 18
4.8 The issues identified by the Centre for Integrity investigation may occur in other mail centres 19
4.9 The continued use of active RFID transponders increases the chance of panellists being identified 20
4.10 Panellists' length of service exceeds the standard 23
4.11 The lack of a clear process around data validation could affect the quality of the dudding 25
4.12 The sample size of PARI bis is too small 26
4.13 Spectos' barcode ordering process may lead to identification of the PARI bis test items 27
4.14 Deviations from monthly mail characteristics proportions in the PARI bis system 28

Annex A Mail characteristics target proportions for 2023

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1 Executive summary

The Belgian Institute for Postal Services and Telecommunications (BIPT) has commissioned Analysys Mason and PLCWW to conduct an audit of the external and internal quality measurement systems of the universal postal service provider in Belgium, bpost.

Our work covered the two following aspects:

- an assessment of the findings and associated recommendations stemming from the 2018 audit, the status of which was still 'open' prior to the 2024 audit, to determine whether the issues had been addressed, resolved or evolved
- a brand new audit, checking the compliance of the quality-of-service (QoS) measurement systems of bpost against the relevant standards (EN 13850, EN 14508 and TR 15472).

Regarding the recommendations stemming from the 2018 audit the status of which was still 'open' prior to the 2024 audit:

- two findings had recommendations that remained open from the previous audit
  - the recommendations related to the 'data validation' finding have now been implemented, but those related to the 'quality control over the internal track-and-trace system and transit time calculation' are still pending.

Regarding our new audit:

- we have identified 14 non-compliant items
- out of these 14, there are:
  - three items which we expect have a high impact[1] on the QoS results being measured,
  - two items which we expect have a low impact[1] on the QoS results being measured,
  - nine items for which we are unable to assess the materiality of their impact[1] on the QoS results being measured.

The three items which we expect have a material impact[1] on the QoS results being measured are:

- the real mail study may not be compliant with the CEN 13850; this aspect is described in section 4.1,
- the issues identified by the Centre for Integrity (CI) investigation may occur in other mail centres; this aspect is described in section 4.8,

[1] if these issues are confirmed. Figure 4 indicates to what extent we are certain of the issue e.g. because it is not in line with one of the standards.

- the continued use of active radio-frequency identification (RFID) transponders increases the chance of panellists being identified; this aspect is described in section 4.9.

More broadly, as it stands, the QoS measurement system of bpost is not in full compliance with the relevant CEN standards.

2 Introduction

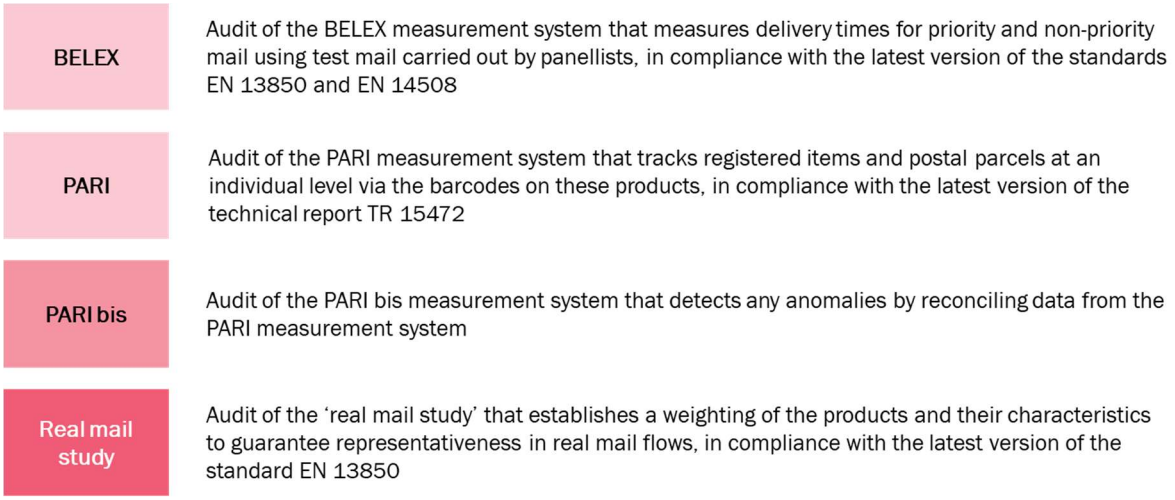
The Belgian Institute for Postal Services and Telecommunications (BIPT) has commissioned Analysys Mason and PLCWW to conduct an audit of the external and internal quality measurement systems of the universal postal service provider in Belgium, bpost. The audit also involved Spectos as the independent performance monitoring organisation in charge of monitoring the QoS of bpost.

This report has been prepared in accordance with the proposal prepared by Analysys Mason in response to tender 2024/POST/AUDIT/01.

2.1 Scope of our assignment

The objective of the project is to audit the four measurement systems shown in Figure 1, and their conformity with the relevant standards, i.e. EN 13850, EN 14508 and TR 15472.

Figure 1: The four bpost measurement systems being audited [Source: Analysys Mason and PLCWW, 2024]



Our audit included an assessment of the following aspects:

- The statistical project
- The methodology used
- The results
- The composition of the panel, and instructions given to panellists
- Internal quality checks.

2.2 Remainder of this document

The remainder of this document is laid out as follows:

- Section 3 assesses the status of the recommendations stemming from the 2018 audit
- Section 4 contains the observations and recommendations from the 2024 audit

In addition, Annex A provides the mail characteristics target proportions for 2023.

3 Status of the recommendations stemming from the 2018 audit

This section assesses the status of the recommendations stemming from the previous audit in 2018.

3.1 2018 audit findings and the latest status prior to the 2024 audit

The 2018 quality measurement systems audit[2] led to a list of observations and recommendations grouped into nine findings, numbered 5.1 to 5.9, and indicated below:

- 5.1: Real mail study and statistical design
- 5.2: Data validation
- 5.3: Statistical design
- 5.4: Panel workload requirements
- 5.5: Internal measurement system track-and-trace
- 5.6: Risk of identification of the panellist
- 5.7: Panel monitoring
- 5.8: Quality control over the internal track-and-trace system and transit time calculation
- 5.9: IT infrastructure internal track-and-trace system

The latest follow-up document linked to this audit[3] indicated that out of these nine findings, only two remained opened, 5.2 and 5.8 which are assessed in more detail below.

During the 2024 audit, we asked bpost to confirm the status of the pending 2018 recommendations.

3.2 2018 audit finding 5.2: data validation

Recommendation from the 2018 audit

"We recommend Spectos to keep track of the data validation errors and the actions performed to correct these errors. Furthermore, we recommend Spectos to (electronically or physically) archive all documents that are supporting data validation including the test letter envelopes.

In addition, we recommend Spectos to review regularly if all items of discovered panelists have been correctly and completely excluded from the measurement results."

2 *Audit of bpost's internal and external measurement systems for transit time calculation, Audit report to the attention of BIPT*, November 2018

3 *Audit of bpost's internal and external measurement systems for transit time calculation, Follow-up on audit report of January 2019 to the attention of BIPT*, October 2020

Evolutions since the 2018 audit and status of finding in October 2020

Figure 2 presents the main steps that have taken place since the recommendation made in the 2018 audit.

Figure 2: Main steps since the recommendation related to the 2018 audit finding 5.2 [Source: PwC, 2018 to 2020]

Main steps	Summary of each step
Management comment bpost[4]	Regarding the tracking of data validation errors and the actions performed to correct these errors, bpost indicated that: • "due to the vast amount of validation data and procedures, there is not a single list of all data validation events for 2017, but a set of some 1.000 documents that are saved on a daily base by Spectos and used for reporting all validation events during the year" • "Spectos proposed to PwC during their visit in Dresden in June 2018 to work with an extract on several days, chosen at random by PwC" • "PwC agreed to receive 2 examples of items for which there was a data validation, which Bpost had send via e-mail" Regarding the storage of test item data, bpost indicated that: • "the CEN 13850 mentions test items should be stored either physically or electronically, and all test items are electronically saved in the Spectos system as presented to PwC in the process of planning and production" Regarding the items from discovered panellists, bpost indicated that: • "this panelist was discovered by bpost on 20/11/2017 and this was communicated in such a way to Spectos. Spectos applied the correct discovery date : there are no more valid received items for this panelist from 20/11/2017" • "the confusion in the date provided by Spectos (14/11/2017 in place of 20/11/2017) comes from the fact until end 2017, Spectos didn't make any difference between date of standby & date of deactivation of a panelist. [...] this process is adapted at the start of 2018 and from then on we have specific reporting on standby dates and deactivation dates"
Feedback PwC on management comment bpost[4]	PwC responded that: • "although the examples provided by bpost in the management feedback above allow us to identify the updates done, we were not able to obtain evidence that these updates were authorised (e.g. feedback from panelist). For updates made due to bundling/clustering we understand that no feedback is required from the panelist and Spectos can perform the assessment themselves. We recommend that bpost and Spectos identify for which data validation errors feedback from the panelist is required and that they keep track of the actions taken to correct the error (including the feedback received from the panelist). For the validation errors for which no involvement of the panelist is required we also recommend to keep track of the actions taken by Spectos. The management feedback does not provide an answer to our recommendation regarding the storage of the test letter envelopes. The additional evidences received are contradictory to the evidences received from Spectos earlier which consisted of a system extract indicating the discovery date of panelist 288547 was 14/11/2017. We

4 From *Audit of bpost's internal and external measurement systems for transit time calculation, Audit report to the attention of BIPT*, November 2018

Main steps	Summary of each step
	recommend that bpost and Spectos re-evaluate their process regarding discovered panelist to avoid reoccurrence."
Management comment BIPT[4]	BIPT indicated that: • "BIPT wishes to emphasise the importance of CEN 13850 compliance and stresses the relevance of formal documentation and archiving to enable auditors to objectively verify the compliance with the CEN 13850. In this regard, it asks bpost to provide an action plan for points 1 and 2 with regard to the storage of test letter envelopes and the discovered panelist procedure respectively."
Description of the issue in the audit report of January 2019[5]	PwC indicated that: • "according to CEN 13850 section F.2.4, the independent monitoring organisation has to define and perform all the necessary validation checks and actions to ensure the quality and accuracy of the data collected for the measurement. Although we noted that data validation checks are embedded in Spectos' system, we could not obtain a list of all data validation errors for 2017 and evidence of follow-up performed. Furthermore, we noted that the test letter envelopes are not archived (electronically or physically) after receipt by the panelist. Although the examples provided by bpost in the management feedback above allow us to identify the updates done, we were not able to obtain evidence that these updates were authorised (e.g. feedback from panelist). For updates made due to bundling/clustering we understand that no feedback is required from the panelist and Spectos can perform the assessment themselves. We recommend that bpost and Spectos identify for which data validation errors feedback from the panelist is required and that they keep track of the actions taken to correct the error (including the feedback received from the panelist). For the validation errors for which no involvement of the panelist is required we also recommend to keep track of the actions taken by Spectos. The management feedback does not provide an answer to our recommendation regarding the storage of the test letter envelopes."
Status of finding in October 2020[5]	PwC considered that the final status of this finding was still 'open' in October 2020. It indicated that: • "archiving of test letter envelopes CEN 13850 section H.5.2 Archiving states archiving is an important element of quality control because an auditor should be able to assess the validity of data validation checks and therefore, it is essential that the original data has been archived. CEN 13850 foresees different ways of archiving, depending on whether the recording of data is performed by the panellists themselves or by the monitoring organisation. Since panellists within Belex record posting and delivery dates themselves via an online web application, CEN 13850 foresees that the monitoring organisation should store the original data sets from panellists electronically and that original data sets should be stored in a secure location. Although CEN 13850 doesn't require specifically that test letter envelopes should be stored, we recommend from an audit perspective to archive those envelopes to ensure sufficient underlying evidence is available to validate the data accuracy." • "data validation errors: through inquiry with bpost on 8th of May 2020 and further inquiry on 10th of September 2020 we understood that items cannot be changed by Spectos from invalid to valid without consulting the panellist. Changing an item from valid to invalid is possible without consultation in certain cases. However, we were confirmed that it is not possible to retrieve

5 From *Audit of bpost's internal and external measurement systems for transit time calculation, Follow-up on audit report of January 2019 to the attention of BIPT*, October 2020

Main steps	Summary of each step
	a list of all changes to items performed (valid to invalid and vice versa). CEN 13850 section H.5.2 states that an auditor should be able to assess the validity of validation checks which is not possible with the current lack of an overview of all data validation changes performed. Therefore, we still recommend implementing the logging of those items to ensure quality controls can be performed by either the monitoring organisation or an independent auditor retroactively, such as monitoring that only authorised changes are performed."

Assessment of compliance in 2024

With regards to data validation errors, Spectos now maintains a 'changelog' of data validation errors, as explained in document *2 BELEX and PARI bis measurement systems Part 2* so this part of the recommendation has been addressed.

With regards to the suggestion to archive the envelopes of test items (also called control items), we understand that this is still not done. We note however that CEN 13850 indicates that:

- Section C.1.8 Archiving: "Quality assurance & control activities shall include: storage of the test item **information** under suitable conditions (physically and/or electronically) in an orderly and retrievable manner for an adequate time at least until the report and the auditing are completed." (emphasis added)

- Section F.2.4 Independent Performance monitoring organisation: "The independent performance monitoring organisation is required to, […] document all material that is necessary for the performance of the audit including a system of maximum workload caps for the panellists [mand. (7), see 6.6] and the physical archiving of test letters **at the end of the contract** [info., see H.5.2]." (emphasis added)

- Section H.5.2 Archiving indicates that:
  - "archiving can be done in different ways" which are "Storage of physical test letter document", "Storage of test letter document images" and "Storage of original data sets from panellists". It adds that "Data validation is often supported by information taken from the test letter envelopes (e.g. postmark dates etc.). **This information can be recorded by the panellists and archived in one of the above ways.**" (emphasis added)
  - "**In cases where the contract with the independent performance monitoring organisation ends before the audit of the measurement period**, physical archiving of test-letter documents and test-letter envelopes should at least be done by the contractor for the last month of the contracted measurement period until the end of the audit." (emphasis added)

Panellists record the information on test items they send and/or receive and it is archived by Spectos in line with the "storage of original data sets from panellists". In addition, Spectos is still the independent performance monitoring organisation at the time of the audit of the measurement period.

It can therefore be argued that while bpost has not yet complied with the 2018 recommendation, it complies with CEN 13850.

In regards to items of discovered panellists, Spectos confirmed that identified panellists are removed from the panel and all test items from these panellists are removed from the QoS measurement calculation.

Result of compliance in 2024

This recommendation has been partially addressed.

3.3 2018 audit finding 5.8: quality control over the internal track-and-trace system and transit time calculation

Recommendation from the 2018 audit

"We recommend to perform a yearly audit of the track-and-trace system and the transit time calculation. The audit should check a.o. that all valid items have been included in the transit time calculation and that exclusion procedures are applied correctly and consistently."

Evolutions since the 2018 audit and status of finding in October 2020

Figure 3 presents the main steps that have taken place since the recommendation made in the 2018 audit.

Figure 3: Main steps since the recommendation related to the 2018 audit finding 5.8 [Source: PwC, 2018 to 2020]

Main steps	Summary of each step
Management comment bpost[6]	None
Feedback PwC on management comment bpost[6]	"No management comment was provided by bpost on this topic, hence, we cannot assess whether any actions will be taken and whether they would be sufficient."
Management comment BIPT[6]	"BIPT wishes to emphasise the importance of CEN 15472 compliance. In this regard, it asks bpost to provide an action plan for this point regarding the audit of the track-and-trace system used for PARI measurement."
Description of the issue in the audit report of January 2019[7]	PwC reiterated its initial recommendation.

6 From *Audit of bpost's internal and external measurement systems for transit time calculation, Audit report to the attention of BIPT*, November 2018

7 From *Audit of bpost's internal and external measurement systems for transit time calculation, Follow-up on audit report of January 2019 to the attention of BIPT*, October 2020

Main steps	Summary of each step
Status of finding in October 2020[7]	PwC considered that the final status of this finding was still "open" in October 2020. It indicated that: • "Through inquiry with bpost on 8th of May 2020 and further inquiry on 10th of September 2020, we noted that there is not yet a yearly audit performed on the track-and-trace system for the PARI measurement and the calculations of the transit time. We understood that the track-and-trace system was fully revised and that there is a new system in place. A monitoring is performed by bpost's digital command center on potential incidents, however, no audit is performed to verify whether amongst others all valid items have been included in the transit time calculation and that exclusion procedures are applied correctly and consistently."

Assessment of compliance in 2024

bpost confirmed that this recommendation has yet to be implemented, and an audit of the track-and-trace system is included in the plan of internal audits for 2025.

This is not in line with the CEN 15472 requirements. However, we are unable to assess the materiality of its impact on the quality-of-service (QoS) results being measured.

Result of compliance in 2024

This recommendation has not yet been addressed.

Due to the significant delay in the implementation of this recommendation, we urge bpost to prioritise this and put the plan into action, by committing to a detailed implementation plan with a strict timeline (e.g. starting in Q1 2025 and completed in Q2 2025).

4 Observations and recommendations from the 2024 audit

This section presents an overview of our observations and recommendations.

Non-compliant items have been categorised based on their estimated certainty and impact on the QoS results.

Certainty has been categorised as follows:

- Certain: we are certain this is an issue, e.g. because it is not in line with one of the standards
- Uncertain: we are uncertain whether it is an issue or not

Impact has been categorised as follows:

- High: we expect that it has a material impact on the QoS results being measured if the issue is confirmed,
- Low: we expect that it does not have a material impact on the QoS results being measured if the issue is confirmed,
- Unknown: we are unable to assess the materiality of its impact on the QoS results being measured if the issue is confirmed.

Figure 4 presents the 14 observations that were identified.

Figure 4: Overview of the non-compliant observations [Source: Analysys Mason and PLCWW, 2024]

Number	Measurement system	Non-compliance issue	Certainty	Impact (if the issue is confirmed)
4.1	Real mail study	The real mail study may not be compliant with the CEN 13850	Uncertain[8]	High
4.2	Real mail study	Location of panellists within Belgium	Certain	Unknown
4.3	BELEX	No corrective weighting applied	Certain	Unknown
4.4	BELEX	Monthly data cut-off on the tenth working day of next month	Certain	Unknown
4.5	BELEX	The number of items dudded due to clustering raises potential concerns about the design of BELEX[9]	Uncertain	Unknown

8 It is unclear whether the real mail study itself is not compliant with the CEN 13850 standard or if it is only poorly documented, and therefore not demonstrating that it is compliant.

9 'Dudding' is the process to remove test items which are determined to be unreliable

Number	Measurement system	Non-compliance issue	Certainty	Impact (if the issue is confirmed)
4.6	BELEX (and PARI bis)	There is risk the workload of some panellists exceeds the standard	Uncertain	Low as most items are BELEX rather than PARI bis
4.7	BELEX	The lack of a clear process for reporting of panellist identification by bpost staff raises the risk that identified panellists stay in the panel	Uncertain	Unknown Would be high if it raises potential concerns about the design of BELEX
4.8	BELEX	The issues identified by the Centre for Integrity (CI) investigation may occur in other mail centres	In the [CONFIDENTIAL] mail centre: certain	High
			In other mail centres: uncertain	High
4.9	BELEX	The continued use of active radio-frequency identification (RFID) transponders increases the chance of panellists being identified	Certain	High
4.10	BELEX	Panellists' length of service exceeds the standard	Certain	Unknown
4.11	BELEX	The lack of a clear process around data validation could affect the quality of the dudding	Certain	Unknown
4.12	PARI bis	The sample size of PARI bis is too small	Certain	Unknown
4.13	PARI bis	Spectos' barcode ordering process may lead to identification of the PARI bis test items	Uncertain	Low
4.14	PARI bis	Deviations from monthly mail characteristics proportions in the PARI bis system	Certain	Unknown

4.1 The real mail study may not be compliant with the CEN 13850

Description of non-compliance

We requested a copy of the following documents from bpost:

- the bpost policy document that outlines the real mail study
- the bpost Standard Operating Procedures for undertaking a real mail study
- details of how the traffic flows and mail characteristics proportions are determined.

bpost's only response to our request has been the provision of one document that concentrates on the allocation of transponders (i.e. test items) to routes. There is very limited information on how the traffic data is captured and no reference to the collection/recording of mail characteristics.

Although a formal procedure exists to perform the real mail study, the study is not well-substantiated due to the following:

- bpost did not provide detailed instructions of how the real mail study should be undertaken and to ensure that it is carried out consistently throughout the whole organisation
- the file that is supposed to document the internal controls built into the real mail study[10] is very brief and incomprehensible
- evidence is not available to support that the internal controls have been properly implemented in the real mail study
- the real mail study is not audited internally or externally
- bpost did not provide any information to explain how it determines the proportions of each mail characteristic
- bpost did not provide any statistical accuracy for the mail characteristics proportions
- some of the mail characteristics are based on manual physical counts with no information on the sample size and the methodology of the process
- when asked to provide the evidence for changing the discriminant characteristics from the 'geographical stratification, addressee' format in 2015 to the 'geographical stratification, day of week (of deposit), month (of deposit)' format in 2019, bpost's only response was that "the features have changed following the introduction of the new Non Prior offer for residential customers in 2019"
- the 2023 mail characteristics proportions are identical to those in 2022, 2021 and bpost's specification from 2020
- all mail characteristics proportions are identical for prior and non-prior items, as shown in Annex A
- stamped/franking machine test items have the same parameter proportions (e.g. typed/handwritten addresses).

Description of its expected impact

Due to the lack of evidence, internal controls, reviews and audits we are not able to conclude that the real mail study was performed in line with the CEN 13850.

10 *Real Mail Study, Summary for correct input*, shared with us under file name "Audit Belex 2024_NQ 4.6.c_RMS_2023_for correct input"

As there was insufficient information on how the proportions of the mail characteristics were determined, we were not able to recalculate the proportions and verify whether the statistical design was set up in accordance with the CEN 13850.

The BELEX measurement system relies heavily on the availability of a reliable real mail study that provides traffic flows and mail characteristics proportions that accurately reflect current real mail. Only a well-defined, appropriately structured and properly executed real mail study provides a solid foundation for a statistically valid QoS measurement system. Therefore, we expect that it has a material impact on the QoS results being measured.

Recommendations to address this non-compliance

We recommend that bpost:

- clearly documents how the mechanised/manual traffic volumes and flows are determined and then combined
- clearly documents how the proportions of each mail characteristic (and their accuracy) are determined
- clearly documents the evidence for selecting/changing the discriminant characteristics
- reviews the existing structure of the real mail study and assess whether it is fit for purpose and compliant with the CEN 13850
- reviews the execution of the real mail study to ensure the process is carried out in accordance with the defined methodology
- assesses where in the process it would be appropriate to build in internal controls and reviews which can reduce the risk of an inaccurate output.

We want to emphasise the importance of a robust real mail study on the BELEX measurement. If the real mail study is poorly defined, structured and executed, then the whole of the QoS survey and the subsequent results are compromised.

bpost should commit to a detailed implementation plan with a strict timeline, (e.g. the implementation of a new real mail study addressing all the above recommendations in 2025).

4.2 Location of panellists within Belgium

Description of non-compliance

The real mail study documentation describes how the transponders within the BELEX test items are allocated geographically within Belgium:

- "For the transponders leaving the region for another region (region = Sorting territory), transponders from the top 5 Logistical Platforms are selected. This is to limit the number of flows and to avoid too many too small flows."

- "Incoming transponders from other regions will be assigned to the top 7 Distribution Platforms. The limit of 7 is chosen in order to keep the total number of flows within a reasonable range and to avoid many very small flows."

This approach could result in some logistical platforms/distribution platforms never being included in the QoS measurement. In other words, some areas of the country or some routes may never contribute to the national QoS result.

Description of its expected impact

Since we could not obtain any relevant data, we could not determine the expected impact on the QoS results being measured.

Recommendations to address this non-compliance

We recommend that bpost adheres to CEN 13850 Section 6.5.1, which states that "the geographical distribution of the panel shall be done according to random sampling. The whole of the geographical area defined in the field of study shall be eligible." This geographical reallocation of panellists should start immediately for all new panellists being recruited, and be completed by end of 2028 at the latest (based on a length of service of 4 yeas for panellists, see Section 4.10).

4.3 No corrective weighting applied

Description of non-compliance

The number of actual test items can be quite different from target test items, or equivalently, the actual proportions by mail characteristics can be quite different from the target proportions defined by bpost according to the real mail study (as shown in Annex A). In 2023, this was particularly the case for the proportion of stamps vs. franking machine and postbox vs. pickup induction point. This was also the case in 2022 and 2021.

In 2023, 9390 test items (13.4% of the total test items) were sent via a business franking machine vs. the target of 28 800 test items (40% of the total) defined by bpost. 2900 test items (4.1% of the total) were sent via pickup vs. the target of 17 280 test items (24% of the total) defined by bpost.

In addition, there was a marked difference in the collection regions' actual proportions for Antwerp and Liege vs. the target proportions. In 2023, 12.3% of the total test items were in the Antwerp Collection Region vs. the target of 21.1%, while in the Liege Collection Region the actual proportion of total test items was 19.4% vs. the target of 9.6%. Spectos' response regarding this difference is: "This is the effect of a change in the bpost structure and how these numbers are reported, not an erroneous allocation."

These differences revealed that the proportions for the mail characteristics as defined in the statistical design were not consistently respected. According to the CEN 13850 Section 7.3.2.2, the results

need to be reweighted in case the difference between the actual proportion and the target proportion is more than 20%. Spectos confirmed there is no reweighting of the results.

The CEN 13850 requires that corrective weighting be applied to the stratified sampling to ensure that the resultant proportions match the real mail study, given the expected deviations from the posting plan (due to items not being sent and invalid test items). However, the QoS measurement system does not include corrective weighting.

Description of its expected impact

Based on the points mentioned above, we noted there are breaches of the CEN requirements that imply the measurement result can be considered invalid.

Without corrective weighting, the impact of differences in the QoS by discriminant mail characteristic, combined with deviations from the posting plan by the panel, could result in a QoS survey result which is not the same as the actual QoS.

Due to the late delivery of data by bpost, we have not been able to recalculate the QoS results with reweighting applied.

Recommendations to address this non-compliance

We recommend that bpost reviews the monitoring procedures to ensure the requirements defined in the statistical design are met. In case the monitoring procedures are not sufficient and the actual proportions differ from the target proportions, an analysis should be made to verify whether corrective weighting is necessary to restore proportionality. This should be implemented within 3 months of bpost being notified of the results of the audit, and kept in place in all subsequent calculations of the QoS results.

4.4 Monthly data cut-off on the tenth working day of next month

Description of non-compliance

bpost's survey specifications state that results are based on all valid mailings sent during a given period.

According to CEN 13850 Section H.3.4, "to be able to report all delayed letters, final reports can be calculated not sooner as all possible J+30 items had a reasonable chance to be reported back, processed and validated".

Spectos performs monthly data closing after the tenth working day of the following month to allow for the delivery of mail items from the previous month.

Description of its expected impact

Test items posted towards the end of a month, with a transit time greater than 10 days, will not be included in the QoS report.

Since we could not obtain the full list of items excluded from the QoS measurement due to a greater than 10 days transit time, we could not determine the expected impact of this practice on the QoS results being measured.

Recommendations to address this non-compliance

We recommend that bpost adheres to CEN 13850 and ensures that Spectos includes up to 30 working days transit time in the QoS report. This should be implemented within 3 months of bpost being notified of the results of the audit, and kept in place in all subsequent calculations of the QoS results.

4.5 The number of items dudded due to clustering raises potential concerns about the design of BELEX

Description of non-compliance

A specific check during monthly closure involves clustered items. Spectos ensures that no induction point on a single day has more than four items for private panellists or five items for company panellists, even if they originate from different panellists. If excessive clustering occurs, a random selection of items is dudded[11] to maintain data quality.

Description of its expected impact

In 2023, 1637 items were dudded due to clustering (the third-highest category for dudding BELEX test items, after 'receiver on vacation' and 'receiver not sure of receipt date').

Since we could not obtain the full list of items dudded due to clustering, we could not determine the expected impact on the QoS results being measured.

Recommendations to address this non-compliance

We recommend that bpost ensures that Spectos instructs panellists to spread the posting of test items over various induction points rather than posting several items simultaneously at one induction point. Also, improving the geographical spread of the panel would minimise the possibility of more than one panellist using the same induction point, and this would allow greater representation of posting points in the survey. This should be implemented within 3 months of bpost being notified of the results of the audit, and kept in place in all subsequent calculations of the QoS results.

11 'Dudding' is the process to remove test items which are determined to be unreliable

4.6 There is risk the workload of some panellists exceeds the standard

Description of non-compliance

CEN 13850 provides the following requirements regarding panellists' workload:

- "A maximum of 12 letters per week shall be allocated to any domestic sender except business senders with a mode of payment other than 'stamped', in which case a maximum of 24 letters per week should be allocated. A maximum of 24 letters per week also shall be allocated to the professional panellist for each induction point."
- "A maximum of 12 letters per week shall be allocated to any domestic receiver. On average, no receiver shall get more than 6 letters per week during his/her time of participation in the measurement period."
- "In case the panellist takes part in more than one test mail measurement system, this workload cap shall apply to the total amount of test mail received from all test mail measurement systems."

The number of items allocated to panellists (sender and receiver) adhere to the maximum/average items specified in the relevant standard. However, the workload files provided refer to BELEX test items only (i.e. PARI bis test items are not included in these files).

Description of its expected impact

Since we could not obtain the total amount of test mail received from all test mail measurement systems, we could not determine the expected impact on the panellist workload, but we expect that it does not have a material impact as a maximum of one item is to be sent and to be received per panellist per week in the PARI bis measurement system.

Recommendations to address this non-compliance

We recommend that Spectos adheres to CEN 13850 and includes the total amount of test mail received from all test mail measurement systems in the panellists' workload files. This should be implemented within 3 months of bpost being notified of the results of the audit, and kept in place in all subsequent calculations of the QoS results.

4.7 The lack of a clear process for reporting of panellist identification by bpost staff raises the risk that identified panellists stay in the panel

Description of non-compliance

We understand that a formal procedure exists to enable bpost staff to report the accidental discovery of the identity of a panellist. When bpost staff believes they might have potentially identified a panellist, they report this to their superiors. This identification is then notified to the person

responsible for the performance of the preparation and distribution of mail in the mail centre, and subsequently bpost reports this identification to Spectos via the RTPM platform.

However, there is currently no documentation or records of when discoveries were made and what steps were taken, and when, as a result.

Description of its expected impact

Due to the lack of tracking and records of the panellist identification procedure, we are unable to verify that each step of the process has been completed timely and properly by the responsible personnel. Timely reporting of potential panellist identification is viewed as essential to ensure the integrity of the measurement as according to CEN 13850 Section 6.6 "the identity of participants in research or measurement shall not be revealed to third parties outside the independent performance monitoring organisation".

We are unable to assess the materiality of its impact on the QoS results being measured.

Recommendations to address this non-compliance

We recommend that bpost keep track of panellist identification by its staff by setting up a record for staff members to note down when each step of the panellist identification process took place. This allows monitoring of the panellist identification procedure and ensures potential identifications are reported promptly and correctly to senior members of the mail centre by bpost staff, and then to Spectos to allow the removal of identified panellists from the panel.

bpost should commit to a detailed implementation plan for the enactment of a new process to record panellist identification, its reporting to Spectos, and the removal of identified panellists from the panel, with a strict timeline (e.g. in Q1 2025).

4.8 The issues identified by the Centre for Integrity investigation may occur in other mail centres

Description of non-compliance

One of the findings from the Centre for Integrity (CI)[12] investigation was that fraudulent practices were being conducted at the [CONFIDENTIAL] mail centre. The CI was also suspicious that fraudulent practices might be happening in other mail centres outside the [CONFIDENTIAL] mail centre, though this was not a proven assessment, on the basis of three witness statements. However, we understand that bpost's internal control department has only conducted additional analysis on

12 "The Federal Ombudsman's Centre for Integrity examines whistleblowers' reports of integrity violations and breaches of law you have come across in your work environment in the strictest confidence." For more details, please visit https://www.federaalombudsman.be/en/whistleblowers/what-does-the-centre-for-integrity

the process applied at the [CONFIDENTIAL] mail centre (i.e. no additional analysis or investigation has been conducted at other mail centres).

Description of its expected impact

There are potential risks of fraudulent practices in other [CONFIDENTIAL] mail centres that have not been investigated and may have an influence on the QoS measurement results. If fraudulent practices were to be found in other [CONFIDENTIAL] mail centres, it would have a material impact on the QoS results being measured.

Recommendations to address this non-compliance

We recommend that bpost's internal control department conduct additional analysis of the practices implemented at other [CONFIDENTIAL] mail centres to mitigate any risk of potentially fraudulent practices and provide extra confidence that these were only happening in the [CONFIDENTIAL] mail centre.

bpost should commit to a detailed implementation plan for this analysis, with a strict timeline (e.g. in Q1 2025).

4.9 The continued use of active RFID transponders increases the chance of panellists being identified

Description of non-compliance

During our site visit to bpost's Charleroi Fleurus sorting centre, we ran a small sample of physical test items through the sorting machines to see how this equipment dealt with the test items. Half of the test items contained an active radio-frequency identification (RFID) transponder, and the other half contained a passive RFID transponder. The observed result of this test was visible damage to the test items with active transponders during mechanised operations. Most standard-size envelopes containing an active RFID creased significantly after going through the sorting machines (see Figure 5 and Figure 6) and the corner of the flap closing the envelope was also slightly ripped for a couple of standard-size envelopes (see Figure 7). It also appears easy to notice the existence of active transponders if a person physically holds a letter containing one and it may be possible to use a device to detect active transponders.

Figure 5: Visible fold on the envelopes around the active transponder – front [Source: Analysys Mason and PLCWW, 2024]

Figure 6: Visible fold on the envelopes around the active transponder – back [Source: Analysys Mason and PLCWW, 2024]

Figure 7: Damaged envelope with active transponder [Source: Analysys Mason and PLCWW, 2024]

Our analysis of the reasons for panellist identification by bpost staff suggests that one main reason is the identification occurring 'during a control[13]' when the team leader inspects items individually, which increases the likelihood of the active transponder being identified.

Moreover, one key recommendation from the CI was to evaluate the methodology used for the BELEX measurement system, in particular the technology used for the test items and to move away from the use of active transponders to ensure test items cannot be detected by touching.

Description of its expected impact

Despite the CEN 13850 allowing the use of test items containing electronic technology (such as active RFIDs), it also specifies that "if these are used, the organisation operating the measuring system shall take steps to ensure that the diagnostic system cannot be identified at any stage of the distribution". Multiple pieces of evidence have suggested the link between the use of active transponders and increased risk of identification.

The expected impact on the QoS results being measured could be high considering the use of passive transponders could minimise or even eliminate postmen and women identifying panellists and prioritising the delivery of test items without reporting these identifications to the responsible personnel.

Recommendations to address this non-compliance

We recommend that bpost and Spectos replace the active transponders currently used for the BELEX measurement system with passive transponders, which are less identifiable during manual processing.

We understand that bpost and Spectos have started to implement passive transponders in the network, with all antennae now able to detect passive transponders, and Spectos having completed tests with the passive transponders on the production process and last-mile units in the letterboxes.

bpost indicated that the bottleneck for exchanging the active transponders with passive transponders has been the delivery of passive transponders by Lyngsoe Systems, which are due to be received by bpost on 11 December 2024. bpost expects that once the passive transponders are available, it will take 3–4 months for them to be fully integrated into the network therefore the estimated complete transition to passive transponders would be towards the end of Q1 2025.

Due to the delay in the procurement of passive RFIDs, we propose that bpost and Spectos implement the deployment of the passive RFIDs in the network as soon as they are available on 11 December to avoid further delays.

13 'During a control' refers to an item being checked individually because e.g. the envelope is ripped and its content could fall out, or postage has not been paid

bpost should commit to a detailed implementation plan of the full switch to the use of passive transponders, with a strict timeline (e.g. in Q1 2025).

4.10 Panellists' length of service exceeds the standard

Description of non-compliance

The CEN 13850 requires that private panellists spend a maximum of 4 years participating in the survey. The relevant text from the CEN 13850 is as follows:

- Section 7.2.2 Panel turnover in relation to accuracy: "Any induction point used by a private sender and any receiving household address shall not be used for more than four consecutive years" and "the induction and/or delivery point of a panellist may be reselected after being inactive for a minimum of three months, if it can be shown by auditable proof that no alternative induction or delivery point was available to be selected with reasonable effort in the measurement period."

- Section H.2.4 Panel turnover: "The result should be a complete replacement of the private induction and delivery points after four years, rather than relying solely on drop-out rates."

However, Spectos' practices might restrict panel turnover and increase the chance of panellists serving more than 4 years. To ensure a balanced rotation, Spectos has implemented a rotation system where, after serving for a maximum of 4 consecutive years, panellists are required to take a break for at least 3 months, but this does not seem to be enforced, as described below, and Spectos has suggested that there is currently no limit to the length of service for panellists.

We have performed a data analysis on the panellist's length of service considering when the panellist was first active in the panel and the last 3-month break. The results of our analysis are shown below, and they suggest that a large proportion of panellists (senders and/or receivers) have been serving for more than 4 years in 2023, even after taking into account the effect of their last 3-month break.

For panellists who have taken a 3-month break, we have calculated their length of service from the date they returned to the panel after this break.

Figure 8: Panellists who have been serving for more than 4 years in 2023, considering only the original date they became active [Source: Spectos, 2024]

Panellist type	Number of panellists (senders and/or receivers)	Number of panellists who have served more than 4 years	% of panellists
Company	151	131	87%
Company with franking machines	18	11	61%
Private	337	218	65%
Unidentified	75	35	47%

Panellist type	Number of panellists (senders and/or receivers)	Number of panellists who have served more than 4 years	% of panellists
Total	**581**	**395**	**68%**

Figure 9: Panellists who have been serving for more than 4 years in 2023, considering their last 3-month break [Source: Spectos, 2024]

Panellist type	Number of panellists (senders and/or receivers)	Number of panellists who have served more than 4 years	% of panellists
Company	151	116	77%
Company with franking machines	18	11	61%
Private	337	191	57%
Unidentified	75	26	35%
Total	**581**	**344**	**59%**

Moreover, bpost's survey specification, Section 2.1.2.15.1 Panel management, suggests that "at least 30% of the panel members will be replaced annually". The actual replacement rate achieved in 2023 was 8% for senders and 14% for receivers.[14]

Description of its expected impact

The CEN 13850 standards on panellists' length of service are defined to manage the risk of detection. If a given panellist is active on the survey for too long, then they are at an increased risk of being identified by bpost personnel.

In addition, continuously using the same sender panellists limits the change in posting points tested, as panellists tend to use the same posting point near their home or work address throughout the course of their status as a panellist. This might result in a less representative sample for the whole country as focusing only on the same areas can lead to an incomplete view of other regions. This impact is reinforced by the current small pool of panellists (201 distinct senders and 435 distinct receivers; one panellist can be both a sender and receiver in 2023, hence the total number of 581 panellists indicated in Figure 8 and Figure 9), and therefore small number of posting points tested in the first place.

However, we are unable to assess the materiality of its impact on the QoS results being measured as the QoS performance of the test items from the newer panellists is not distinguished from that of older panellists.

14 The file *"3.3_panel_turnover_reporting.xlsx"* suggests that 15 senders and 61 receivers were replaced in 2023, out of 201 distinct senders and 435 distinct receivers (based on the files *"2.8_b_Panel_length of service_senders.xlsx"* and *"2.8_b_Panel_length of service_receivers.xlsx"*). We calculated the replacement rates for senders and receivers based on these numbers.

Recommendations to address this non-compliance

We recommend that Spectos implement a process that actively replaces private panellists after 4 years of service and therefore their induction and delivery points, rather than relying solely on natural drop-out rates. It would restrict the length of service for panellists and benefit the BELEX measurement system in two ways:

- ensure the independence of the panellists by minimising the risk of identification
- allow greater variety and geographical spread in the panel.

Spectos is anticipating a reduction in the number of panellists serving over 4 years and an increase in panellists' replacement in 2024 and 2025 due to two actions taken/to be taken by Spectos. The first is that there are some panellists who are currently being replaced as they do not accept a last-mile unit (i.e. the reader of transponders in their mailbox). The second is the plan to migrate the measurement system to a technology that means the panel will need to switch to a new smartphone app limiting or eliminating traditional reporting methods, and therefore leading to the removal of panellists unwilling to adopt this switch.

bpost should commit to a detailed implementation plan towards reaching "at least 30% of the panel members" being replaced over the course of 2025, as well as 30% replacement in each of the following years, and report to BIPT on a quarterly basis indicating what proportion of the panellists have already been replaced since the start of the year.

4.11 The lack of a clear process around data validation could affect the quality of the dudding

Description of non-compliance

A data validation system is designed to either confirm that the data originally provided by the panellist is accurate or alter the data in the case of a mistake made by the panellist. This process includes the removal of test items which are determined to be unreliable: a process known as 'dudding'. Data validation queries are raised based on new information/evidence (e.g. transponders' data) that emerges after the panellist's data entry, providing reasonable cause to assess whether the panellist may have made an error.

In our view, Spectos' implementation of a data validation system generally aligns with the requirements of the CEN 13850, which states that quality assurance and control activities shall include "continuous checks on the quality of the data capture to ensure that test item data have been entered correctly".

There are two further requirements of the CEN 13850 that are relevant to this part of the QoS measurement system:

- Section 5.2.3: "only valid test mail items shall be included in the calculations"

- Section E.3.2.3: "the organisation operating the measuring system shall take steps to ensure that the diagnostic system: does not introduce biases in the end-to-end transit-time results".

However, Spectos was unable to provide evidence relating to:

- the list of standardised queries being asked of panellists
- the total number of dudded items due to responses to the queries from panellists.

Description of its expected impact

Since we could not obtain the full list of data validation queries raised and items duded, we could not determine the expected impact on the QoS results being measured.

Recommendations to address this non-compliance

We recommend that Spectos create one set of standardised queries to be asked of panellists, as this would minimise the chances of introducing biases.

We also recommend that Spectos implement a single database for data validation for the recording, tracking, updating and modification of items' status. We understand that Spectos is planning to put this validation process into the main database together with the usage of the new panellist application[15] in 2025. This will allow Spectos to retrieve the figures relating to the full list of data validation queries raised and items dudded directly from its database. This should be implemented within 6 months of bpost being notified of the results of the audit, and kept in place in all subsequent calculations of the QoS results.

4.12 The sample size of PARI bis is too small

Description of non-compliance

We understand that the PARI bis measurement system's sample size has only slightly increased when the new contract started between Spectos and bpost in 2021, from 304 test items to 347 test items, and has remained relatively stable over the past few years. Meanwhile, the actual volume of domestic parcels has increased significantly in the same period. Even ignoring this significant increase in actual volumes, we note that the numbers of items are below the specifications that state that "in consultation between bpost and the Regulator, it has been determined that a net of 400 test parcels and 310 registered shipments per year must be sent as control shipments."[16]

15 We understand this new panellist application relates to Spectos' plan to switch to a new smartphone app for panellists

16 See document "2020_Cahier des Charges_raamovereenkomst meetsysteem.pdf"; automatic translation into English from a document provided in Dutch

A good sample size for the PARI bis measurement system is important for reliable QoS results being measured. A sufficiently large sample size provides better generalisability, reduces the impact of outliers and easier to assess representativeness.

Description of its expected impact

We are unable to assess the materiality of its impact on the QoS results being measured as the QoS performance of the additional test items is unknown.

Recommendations to address this non-compliance

We understand that all domestic parcels and registered items are tracked and traced via the PARI measurement system and that the QoS results from the PARI bis measurement system is only used to compare with results from the PARI to see if there are any anomalies. It is still important to have a reasonable sample size that relates to the actual volume and makes statistical sense for the results from PARI bis to be reliable enough for comparison with PARI.

We recommend that bpost and Spectos review the sample size of PARI bis which should relate to the actual volume observed from PARI and allow for reliable statistical analysis. This should be prepared in the course of 2025 so that it can implemented from the start of 2026 in the number of PARI bis items being sent.

4.13 Spectos' barcode ordering process may lead to identification of the PARI bis test items

Description of non-compliance

Spectos purchases all barcodes for the PARI bis test items through a single private account and the company's address has been used for invoicing purposes. Spectos assumes that bpost maintains separate data for sales and operations and that Spectos' address for invoicing the barcodes will not compromise the study's integrity. However, there is the possibility that invoicing information could be leaked to the operation team which would compromise the integrity of the QoS results measured.

Description of its expected impact

We expect that invoicing information is not available to the operations team, and that the barcode ordering process will therefore not have a material impact on the QoS results being measured.

Recommendations to address this non-compliance

We recommend that Spectos uses a different invoicing address to reduce the chance that the barcode ordering process introduces a risk of panellists being compromised. This should be implemented within 3 months of bpost being notified of the results of the audit, and kept in place in all subsequent calculations of the QoS results.

4.14 Deviations from monthly mail characteristics proportions in the PARI bis system

Description of non-compliance

bpost's specifications document states that all parcels and registered items, sent as test shipments by the contractor, are spread over the months of the year, similar to the distribution of the BELEX test shipments. In comparison with the BELEX monthly proportions, the PARI bis test shipments in 2023 were above target in April and July, and below target in November and December (Registered and BPACK 24h posted January to December, BPACK Secur posted January to July, BPACK Pay@home posted January to April).

Description of its expected impact

No analysis or details have been provided comparing the results of the PARI bis test shipments with the results of the PARI measurement system and how any anomalies between the results of actual items and test items are investigated.

The small sample size for PARI bis test shipments will have an impact on the accuracy of the QoS result. However, we are unable to assess the materiality of its impact on the QoS results being measured.

Recommendations to address this non-compliance

Depending on the specific purpose of the PARI bis test shipments and the actions taken if any anomalies are found between the results of actual items and test items, we recommend that the distribution of the PARI bis test shipments reflects the monthly distribution of actual items within the PARI measurement system. This should be implemented within 6 months of bpost being notified of the results of the audit, and kept in place in all subsequent calculations of the QoS results.

Annex A Mail characteristics target proportions for 2023

Figure A.1: Mail characteristics target proportions for 2023 [Source: Spectos, 2023]

Parameter	Characteristics	Target number	Target %	Prior	Non-prior
Sender type	Business Franking Machine	28 800	40%	14 400	14 400
	Business Stamps	7200	10%	3600	3600
	Private Stamps	36 000	50%	18 000	18 000
Receiver type	Business	28 800	40%	14 400	14 400
	Private	43 200	60%	21 600	21 600
Product	PRIOR	36 000	100%	36 000	0
	NONPRIOR	36 000	100%	0	36 000
Collection region	Antwerp	15 196	21.1 %	7600	7600
	Brussels	21 449	29.8 %	10 723	10 723
	Charleroi	12 086	16.8 %	6043	6043
	Gent	16 354	22.7 %	8177	8177
	Liège	6914	9.6 %	3457	3457
Distribution region	Antwerp	16 004	22.2 %	8002	8002
	Brussels	16 018	22.2 %	8009	8009
	Charleroi	12 482	17.3 %	6241	6241
	Gent	19 204	26.7 %	9602	9602
	Liège	8292	11.5 %	4146	4146
Route type	Regional	48 268	67%	24 134	24 134
	National	23 732	33%	11 866	11 866
Induction month	January	6336	8.8 %	3168	3168
	February	5760	8%	2880	2880
	March	6048	8.4 %	3024	3024
	April	5760	8%	2880	2880
	May	6048	8.4 %	3024	3024
	June	5760	8%	2880	2880
	July	4896	6.8 %	2448	2448
	August	4680	6.5 %	2340	2340
	September	5472	7.6 %	2736	2736
	October	6048	8.4 %	3024	3024
	November	5832	8.1 %	2916	2916
	December	9360	13%	4680	4680
	Monday	15 120	21%	7560	7560

Parameter	Characteristics	Target number	Target %	Prior	Non-prior
Induction day	Tuesday	15 120	21%	7560	7560
	Wednesday	14 400	20%	7200	7200
	Thursday	14 400	20%	7200	7200
	Friday	12 960	18%	6480	6480
	Saturday	0	0%	0	0
	Sunday	0	0%	0	0
Weight	50g normalised	63 360	88%	31 680	31 680
	50g not normalised	3600	5%	1800	1800
	51–100g	3600	5%	1800	1800
	101–350g	1440	2%	720	720
Address type	Handwriting	28 800	40%	22 800	6000
	Machine	43 200	60%	21 600	21 600
Format	Small	63 360	88%	31 680	31 680
	Big	8640	12%	4320	4320
Inductions	Postbox	49 680	69%	24 840	24 840
	Postoffice	3600	5%	1800	1800
	PostPunt	1440	2%	720	720
	Pickup	17 280	24%	8640	8640