



Performance Audit:  
Assessing the Public Transport Contract and  
Transport Malta's visibility on the service

February 2020



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# List of Abbreviations

GPS	Geographical Positioning System
IT	Information Technology
NAO	National Audit Office
PTO	Public Transport Officer
PTU	Public Transport Unit
TM	Transport Malta



# Executive Summary

A number of ambiguously written clauses in the contract document are leniently interpreted by the Public Transport Unit. Visibility and monitoring over the service provider's performance can also be improved

## Why This Study?

The scheduled bus service is the sole large-scale transport service that provides mobility to the general public and is expected to cost Government a total of €430 million over the duration of the contract. In view of this, NAO carried out a review of the contract governing this agreement and assessed how well Transport Malta is overseeing service deliverables.

## What NAO Recommends

This Office urges the Public Transport Unit to change the classification of safety-related non-conformities, thereby reducing any unnecessary risk exposure to service users. The Unit is also encouraged to expedite the implementation of the new IT System and electronic aides to its on-the-ground staff so that, as a result, any relieved human resources can be redirected towards other functions related to forming and analysing additional intelligence on the service. NAO further recommends that on-the-ground inspectorate staff are bolstered and that the Unit ensures that the quality of its inspections is more consistent. As a final note, the PTU is encouraged to draw up and implement a standard operating procedure which governs the processes within its customer care function.

## NAO's Key Observations

This review showed that the contract document governing the scheduled bus service, while generally satisfying principles of good practice, has a number of shortcomings, particularly due to the ambiguous manner by which certain performance and penalty-related clauses are written. When coupled with the leniency by which Transport Malta interprets some of these clauses, especially those related to safety issues, NAO feels that this situation can potentially have a negative impact on the service being provided.

This study also highlighted the severely inefficient and labour-intensive data processing mechanisms currently being utilised by Transport Malta to measure the performance of the service against the service levels stipulated in the contract. As a result, the audit team noted that this practice is more prone to human error and absorbs practically all the Public Transport Unit's office-based resources.

This audit has also identified under-staffing issues within the Unit's on-the-ground inspectorate arm. In addition, while NAO was somewhat satisfied with the quality of inspections observed during its fieldwork, it still felt that improvements could be made to the day-to-day implementation of this monitoring mechanism. This was particularly the case in the consistency by which these inspections are carried out and the completeness of the tests conducted.

In reviewing the Customer Care function of the Public Transport Unit, this audit has also shown that there is currently no formal process by which customer queries or complaints are handled. Specifically, the audit team perceived elevated risks in the Unit's system whereby filed complaints were not being recorded up to their closure. In such instances, NAO perceived the possibility of complaints not being addressed in a timely manner, if at all.

This audit has nonetheless also highlighted the effort being dedicated by the Public Transport Unit towards extending its visibility over the service in question. This was particularly evident in the Unit's investment towards a new IT system intended to automate most of the current labour-intensive processes, as well as the Unit's intention to improve its on-the-ground efficiency with the supply of electronic aides to its inspectorate staff.



# Chapter 1

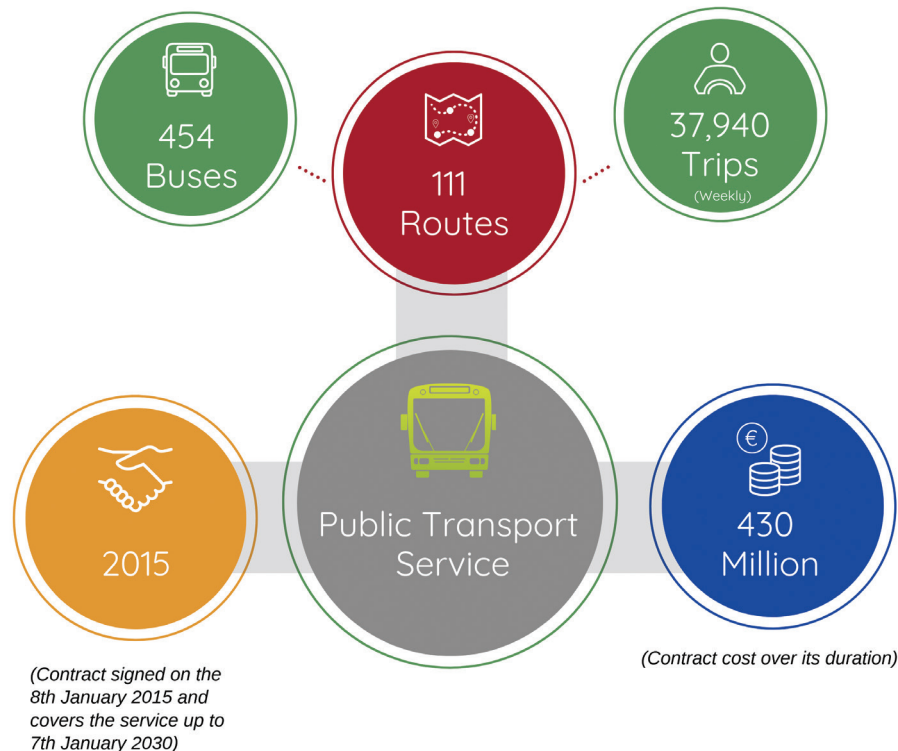
## Introduction

The introductory chapter of this report contextualises the audited area and presents the audit's overall scope, objectives and adopted methodology. These are followed by a synopsis of the report's chapters.

### 1.1. Why this Study?

1.1.1 The scheduled bus service in Malta carries significant social importance, particularly since it is the sole large-scale transport service that provides mobility to the general public. This service is being provided through a contract between Government and a private operator and is expected to cost the former more than €430 million over the contract's 15-year duration. Given these considerations, the National Audit Office (NAO) carried out a review to assess whether Transport Malta's (TM) Unit, entrusted with monitoring this contract, is achieving enough visibility over the whole service. This Office also examined whether the contract governing this agreement adequately safeguards Government's, and subsequently the taxpayers, interests.

**Figure 1: Public Transport Service - Context**



## 1.2 Background Information

- 1.2.1 The contract for the scheduled bus service governs the provision of public transport across the Maltese islands. The agreement between TM and the operator was signed on the 8th of January 2015 and covers the provision of service up to the termination date on 7th January 2030. As previously mentioned, this service is subsidised by Government at a cost of around €29 million per annum.
- 1.2.2 TM's Public Transport Unit (PTU) falls under the Ministry for Transport and is responsible for the management and monitoring of this contract. This Unit, amongst other tasks, ensures that all the contractual clauses are respected, as well as monitors and reports on the operator's performance. PTU is made up of 12 employees, including 3 members of management.
- 1.2.3 As at September 2019, a total of 454<sup>1</sup> buses were registered to service 111 routes across the Maltese islands. Through these routes, an average of 37,940 trips were performed weekly in the period between January to September 2019. It is worth mentioning that this total also includes all return trips.

## 1.3 Audit Scope and Objectives

- 1.3.1 This study analysed two main areas, namely to:
- Assess whether the contract document governing the scheduled bus service provides the Unit with sufficient control mechanisms to effectively monitor the service; and
  - Evaluate the controls used by the PTU and assess the adequacy of its visibility on the service in question.
- 1.3.2 It is important to point out that this audit did not seek to determine if the service is satisfying the needs and/or expectations of the general public, and therefore excludes the users' opinion on the quality of the service being offered. In addition, this report also omits analyses on the procurement process of the same service, as well as compliance aspects of the financial transactions (both outgoing and incoming) related to the contract.
- 1.3.3 Unless otherwise stated, the findings presented in this report reflect the situation as at September 2019.

## 1.4 Methodology

- 1.4.1 The audit team acquired a copy of the contract in question and performed a preliminary review at the initial stages of this exercise. An introductory meeting was subsequently held

<sup>1</sup> This is the number of buses registered to provide the service and not the number of buses actually on the road. In fact, this number includes a number of buses which are held on stand-by and others which may have been out of service for repairs.

with TM to gain a better understanding of the key issues at hand. Following this, the NAO carried out a detailed issue-analysis exercise on the scoped audit area to determine the main audit question. Thereafter, a number of sub-questions emerged, providing the audit team with a clear pathway towards the successful conclusion of this audit.

- 1.4.2 Further to the preliminary research, the audit team held a series of semi-structured meetings with members of TM's management who were responsible to manage this contract and monitor the service. During this period, NAO requested and was provided with documentation and data related to the audited area. A thorough analyses of this documentation and data led to the findings of this study which, together with this Office's observations and recommendations, were presented to the audited entity for its feedback. Prior to its publication, this report was finally forwarded to and discussed with the auditee to ensure that information and data being presented are factually correct.
- 1.4.3 The NAO conducted this performance audit in line with the Standard for Performance Auditing, ISSAI 3000.

## 1.5 Report Structure

- 1.5.1 **Chapter 1** – The introductory chapter of this report contextualises the audited area and presents the audit's overall scope, objectives and adopted methodology. These are followed by a synopsis of the report's chapters.
- 1.5.2 **Chapter 2** - This chapter presents NAO's observations on the contract currently being used to govern the operation of the Scheduled Bus Service in Malta. Specifically, this exercise highlights the contractual conditions which, in NAO's opinion, weaken TM's position in adequately monitoring the contract. In addition, this review puts forward a number of proposed revisions in the relevant clauses, aimed at strengthening the PTU's position in this respect.
- 1.5.3 **Chapter 3** - This chapter presents NAO's analysis on the way TM is securing visibility on the Public Transport service and what monitoring mechanisms are being utilised so that the PTU ensures that the deliverables detailed in this agreement are being achieved or otherwise.

# Chapter 2

## Contract Review

This chapter presents NAO’s observations on the contract currently being used to govern the operation of the Scheduled Bus Service in Malta. Specifically, this exercise highlights the contractual conditions which, in NAO’s opinion, weaken TM’s position in adequately monitoring the contract. In addition, this review puts forward a number of proposed revisions in the relevant clauses, aimed at strengthening the PTU’s position in this respect.

### 2.1 Contract could have better safeguarded Government’s interests

2.1.1 As part of this audit, NAO sought to determine whether Government’s interests were sufficiently safeguarded through the clauses of the contract being reviewed. To achieve this, the audit team carried out an in-depth analysis of the said document and, through Table 1, presents its observations on the clauses, which in its opinion could have better promoted Government’s interests, and consequently those of the taxpayer. In addition, this Office also benchmarked (Table 2 refers) this contract with a series of prerequisites which would return good value for money.

**Table 1: NAO’s review of the contract document**

Contract Clause No.	Original Clause	Concern	Recommendations
8.20.1 – P.40	<i>“Where the non-compliance by the operator is not capable of remedy, then the Authority may impose a penalty without the need of following the process set out above . . . .”</i>	NAO observes this clause does not specifically identify the party who should determine if a non-compliance is beyond remedy or not.	Any responsibilities identified in such contracts should be clearly assigned to specific individuals/parties to avoid confusion and unnecessary contestation in the event that such a clause is to be evoked.
8.20.2 – P.40	<i>“Where the non-compliance refers to a matter relating to the safety of passengers the cure period allowed under the provisions of this article 8 shall be shortened to two (2) days.”</i>	This clause sets out a curing period within which the operator is to remedy any issues of non-compliance with passenger safety standards stipulated in the contract. While this Office acknowledges the granting of a curing period for issues to be remedied, it feels that this should not be the case with safety-related concerns particularly considering the risks involved.	In instances of non-compliance with health and safety standards, this Office recommends that the service provider is bound to withdraw the vehicle in question from the transport network as soon as the shortcoming is identified. Any such vehicles should only be allowed to resume duty upon certification by TM that they are safe.

Contract Clause No.	Original Clause	Concern	Recommendations
11.8 – P.49	<i>“The Operator shall not be liable to pay penalties imposed under this Contract in excess of an aggregate of three thousand euros (€3,000) for each day (the “Daily Cap”), notwithstanding that a breach continues the daily penalties imposed by the Authority may be in excess of the Daily Cap.”</i>	In NAO's opinion, this clause is not sufficiently clear. While the general spirit of this provision is understood, it nevertheless leaves doubts on how it should be applied, particularly on when it is permissible to exceed the threshold.	A clause as pivotal as this should be clear, leaving no doubt on its interpretation. This would mitigate the possibility of misinterpretation and potential conflict during the effective period of the contract.
Schedule 10 Art. 12 – P.3-4	<p>Service Reliability</p> <p>This part of the contract lays out concessions to the service provider allowing the latter to miss a number of trips per route (according to the respective route's frequency) without being penalised. For example, routes with frequencies of 15 minutes every hour are allowed 1 missed trip in every 7 hours of operation.</p> <p>The contract then proceeds to state that:  <i>“This shall be monitored every month on every Bus Route and over a period of at least three hours.”</i></p>	NAO is of the opinion that this clause is ambiguous and leaves room for different interpretations. This is particularly evident in the different quoted timeframes between the allowed concessions and those upon which the applicable penalties are calculated. Such a situation leaves the Authority in a weak position when enforcing this service level.	NAO strongly suggests that clauses in public contracts should be clear and leave as little room for interpretation as possible.
Schedule 10 Art. 12 – P.4	Service Reliability <i>“... the above penalties should be capped at €15,000 per month.”</i>	It is NAO's considered opinion that the two capping measures on these two key service levels are too low. When compared to the €2.4 million public service compensation payable monthly by Government (which excludes the ticketing revenue generated by the provider), these penalties amount to no more than 0.6% (service reliability) and 0.4% (service punctuality) of this sum. This Office considers these percentages as excessively low to effectively serve as a deterrent for low performance in these two pivotal service levels.	Penalties in any contract should serve as a proper deterrent so that the associated defaults are avoided as much as possible. To this end, NAO strongly recommends that future contracts are better designed in this respect and stipulate penalties, which are commensurate with the shortcomings they seek to deter.
Schedule 10 Art. 13 – P.5	Service Punctuality The contract specifies that the maximum penalties for late bus trips shall not exceed €10,000 per month.		

Contract Clause No.	Original Clause	Concern	Recommendations
<p>Schedule 10 Art. 15 – P.6</p>	<p><i>“The Operator shall ensure that Buses leave from the terminus or the main Timing Points not more than 1 minute ahead of the time established in the timetable published. Provided that the maximum tolerance of 5% of all Bus Trips shall apply.”</i></p> <p>Penalty – <i>“€25 for each breach in excess of five breaches within the same two-hour period on the same bus stop on the same bus route in the same week.”</i></p>	<p>This clause is also considered to be ambiguous as it stipulates two different measures and thresholds for the number of permissible early trips. In view of this, NAO notes that the clause can be interpreted in more than one way since it is not clear which threshold needs to be exceeded before the penalties are applied.</p> <p>This Office is also concerned that, through some of these different interpretations, this clause may be understood as allowing two layers of concession, with the supplier having to default on both for penalties to be applied.</p>	<p>This Office once again advocates for clear clauses in public contracts. In this case this is particularly important in view of the implications on service users when trips depart earlier than scheduled, essentially causing the user to miss the bus.</p> <p>In the event that the contract was originally designed to introduce a double layer of concession, NAO recommends avoiding such practice as it does not represent good value for money when applied to this type of agreement.</p>
<p>Schedule 10 Art. 44i – P.12</p>	<p>The Operator shall ensure that Bus drivers, at all times:</p> <p>i) <i>Are able to communicate fluently in Maltese language and/or the English language, provided that the Operator shall do its utmost to recruit drivers that are fluent in Maltese language.</i></p>	<p>While this Office acknowledges that this clause encourages the operator to employ drivers who are fluent in Maltese, it also notes that it does not strictly bind the service provider to do so. Given that this is the national and only mass transportation service in the country, NAO recognises that there may be issues with service users who speak and/or understand only the Maltese language.</p>	<p>NAO recommends that such contracts should bind the service provider to ensure that as a result of their training, drivers would be in a position to speak and understand at least a basic level of the Maltese language.</p>

**Table 2 : Contract for Scheduled Bus Service benchmarked against best practice guidelines**

Best Practices Contractual Clauses	Status			NAO Observations
	Appropriately included	Not appropriately robust to safeguard Government's interest	Omitted	
Termination	<input checked="" type="checkbox"/>			NA
End Date	<input checked="" type="checkbox"/>			NA
Penalties		<input checked="" type="checkbox"/>		<i>The contract contains penalties for most of the service levels. However, these penalties are capped at an amount which, in some cases, limits TM's enforcement effectiveness in the event of low performance. Also, as already mentioned in this chapter, some of the clauses which highlight applicable penalties are ambiguously written.</i>
Payments	<input checked="" type="checkbox"/>			NA
Access and disclosure	<input checked="" type="checkbox"/>			NA
Assistance provided to the contractor	<input checked="" type="checkbox"/>			NA
Confidential information	<input checked="" type="checkbox"/>			NA
Conflict of interest	<input checked="" type="checkbox"/>			NA
Contract variations	<input checked="" type="checkbox"/>			NA
Dispute resolution	<input checked="" type="checkbox"/>			NA
Insurance	<input checked="" type="checkbox"/>			NA
Key personnel	<input checked="" type="checkbox"/>			NA
Liabilities and indemnities	<input checked="" type="checkbox"/>			NA
Securities and guarantees	<input checked="" type="checkbox"/>			NA
Sub-contracting	<input checked="" type="checkbox"/>			NA
Transition agreements			<input checked="" type="checkbox"/>	<i>While the contract outlines arrangements for the transitory period at the start of the agreement's operational period, it fails to mention any transition-out strategy or plan.</i>
Deliverables	<input checked="" type="checkbox"/>			NA

## 2.2 Leniency on safety-related shortcomings

- 2.2.1 During meetings with TM management, NAO was informed that breaches identified by the former are listed and classified in two main categories, namely rectifiable and non-rectifiable. TM stated that non-rectifiable breaches cannot be reversed once committed, which include drivers smoking or using a mobile phone while driving the bus. PTU further highlighted that, in such identified cases, the operator is penalised outright. On the other hand, breaches that are considered as rectifiable (e.g. lack of required signage and adequate internal lighting on buses) are shortcomings which can be remedied and do not lead to the provider being immediately fined. Rather, in the event that such shortcomings are identified, the operator is informed of the breach (even if as mentioned in 3.2.6 this may take a few days) and is given a curing period within which the non-compliance is to be rectified. NAO was additionally informed that, should such a shortcoming persist after this period, the applicable penalty is then enforced.
- 2.2.2 Through its review however, this Office noted that the above classifications are not specifically listed and compiled in the contract document. Rather, the contract (through clauses 8.12 – 8.19) only lays out a process by which identified shortcomings can be either contested or remedied by the service provider within a stipulated period. It is also noted that clause 8.20.1 states that any identified non-compliance which is deemed beyond remedy is liable to the respective penalty without the need for the above process to be followed. Nevertheless, as already mentioned in Table 1, NAO observes that this latter clause does not specifically identify the party who should determine if a non-compliance is beyond remedy or not.
- 2.2.3 Given that the contract does not specifically list which non-compliances are rectifiable and those that are not, NAO enquired with TM Management on how the classifications mentioned in 2.2.1 above were assigned. The Unit stated that these were negotiated and agreed with the supplier and drafted into a working document. When NAO enquired whether such a document has been officially signed by both parties, TM replied in the negative.
- 2.2.4 NAO was provided with a copy of this working document and, upon review, it was primarily observed that a number of what may be considered as critical safety breaches were classified as rectifiable. Amongst others, these included cases of thorn or unthreaded tyres, exposed wiring, dangerous soffit ceilings and missing fire extinguishers.

### NAO Observations

- 2.2.5 NAO strongly disagrees with the classification of certain critical safety issues as rectifiable non-compliances in the mentioned working document. This Office is of the opinion that allowing passengers to travel on-board a vehicle which has health and safety related shortcomings constitutes an action which cannot be reversed, since commuters would have been put at risk for the duration of their trip. In this respect, NAO believes that TM's agreement with the service provider to classify safety related non-compliances as rectifiable is too lenient.



2.2.6 In addition, NAO is also concerned with the fact that the contract document does not classify defaults in to what is regarded as rectifiable and what is not. This shortcoming is further compounded by the fact that these are not officially documented and endorsed by both parties in any other instance. In NAO's opinion, this puts the Authority in a weak position should the provider choose to contest the classification of identified shortcomings.

## 2.3 Some penalty clauses in the Contract are interpreted very leniently by TM

2.3.1 As already identified in Table 1, Articles 12 and 15 of the contract's tenth schedule are ambiguously written, leaving room for different interpretations. In view of this, NAO enquired with TM how it interprets these clauses. The following section lays out the clauses in question and the PTU's respective interpretation.

2.3.2 Article 12 (concerning reliability) of the contract lays out six different ranges of route frequencies and corresponding thresholds which establish allowable missed trips for each. An example is as follows:

*Bus Routes with frequencies of 15 minutes every hour: maximum of 1 missed Bus Trip every 7 hours*

2.3.3 As stated in Table 1, the contract however also specifies that these thresholds *shall be monitored every month on every Bus Route and over a period of at least three hours.*

2.3.4 In determining how this ambiguously presented clause is interpreted by the PTU, NAO observed that the former aggregates the allowed concessions over a period of one month. Specifically, rather than allowing for missed trips in isolated time periods as identified in every threshold, the Unit calculates the contractually permissible missed trip allowance as a total for every month. It is only when this total number of monthly missed trips is exceeded that penalties are enforced. NAO notes that this interpretation creates a second level of concession as it allows for defaulting periods to be set-off over a whole month by others in which no defaults were registered.

2.3.5 Secondly, as already mentioned in Table 1, Article 15 (relating to early trips) is also ambiguously written and leaves room for different interpretations. Although this clause was already quoted in Table 1, its text is once again here reproduced for ease of reference:

*The Operator shall ensure that Buses leave from the terminus or the main Timing Points not more than 1 minute ahead of the time established in the time table published.*

*Provided that the maximum tolerance of 5% of all Bus Trips shall apply.*

*Penalty - €25 for each breach in excess of five breaches within the same two-hour period on the same bus stop on the same bus route in the same week.*

**2.3.6** As previously mentioned in Table 1, NAO acknowledges that this clause could also easily be interpreted as allowing two layers of concession on early trips. In fact, during meetings it transpired that the Unit's interpretation allows room for this to happen. Specifically, the audit team (through the review of the PTU's documentation) saw that TM allows for five early trips per week (for every route, for every two-hour period) with any remaining defaults above this threshold being set-off against the 5% tolerance mechanism. Furthermore, NAO observed that, through this interpretation, no penalties in this regard have been imposed in the period between May 2018 to April 2019. However, this Office also acknowledges that, during the mentioned period, there was only one instance in which the 5% early-trip overall tolerance was exceeded over a period of one week.

## NAO Observations

**2.3.7** With respect to the abovementioned clauses, NAO feels that the Unit's interpretation leans towards being more lenient. This allows more room for defaulting incidents to occur before any penalties are applied, thereby potentially impacting negatively the quality of the service being provided.

## 2.4 Recommendations

**2.4.1** NAO considers safety issues as being of paramount importance. To this end, it is suggested that TM seeks to change the classification of health and safety non-conformities with the service provider, to re-classify them as non-rectifiable. This will reduce the unnecessary risk exposure to service users, while sending a stronger message to the provider and the taxpayer, that the public transportation service is to uphold the highest health and safety standards.

**2.4.2** This Office feels that the classification of non-compliances, to determine which are rectifiable and which are not, is an important element in the agreement. While NAO recommends that such a classification is clearly outlined in any future contract document per se, it also suggests for the current agreement that an official list is drafted and endorsed by both involved parties, possibly formalising it through an addendum.

**2.4.3** Although NAO does not encourage an overly restrictive approach to interpreting contractual clauses, particularly those relating to the application of penalties, on the other hand it urges the PTU to ascertain that its interpretation does not create undue leniency. The Unit should be able to achieve this by finding a workable middle-ground through which the service provider is allowed some natural leeway in supplying the service, while still providing a sufficient and effective deterrent if the latter defaults.



# Chapter 3

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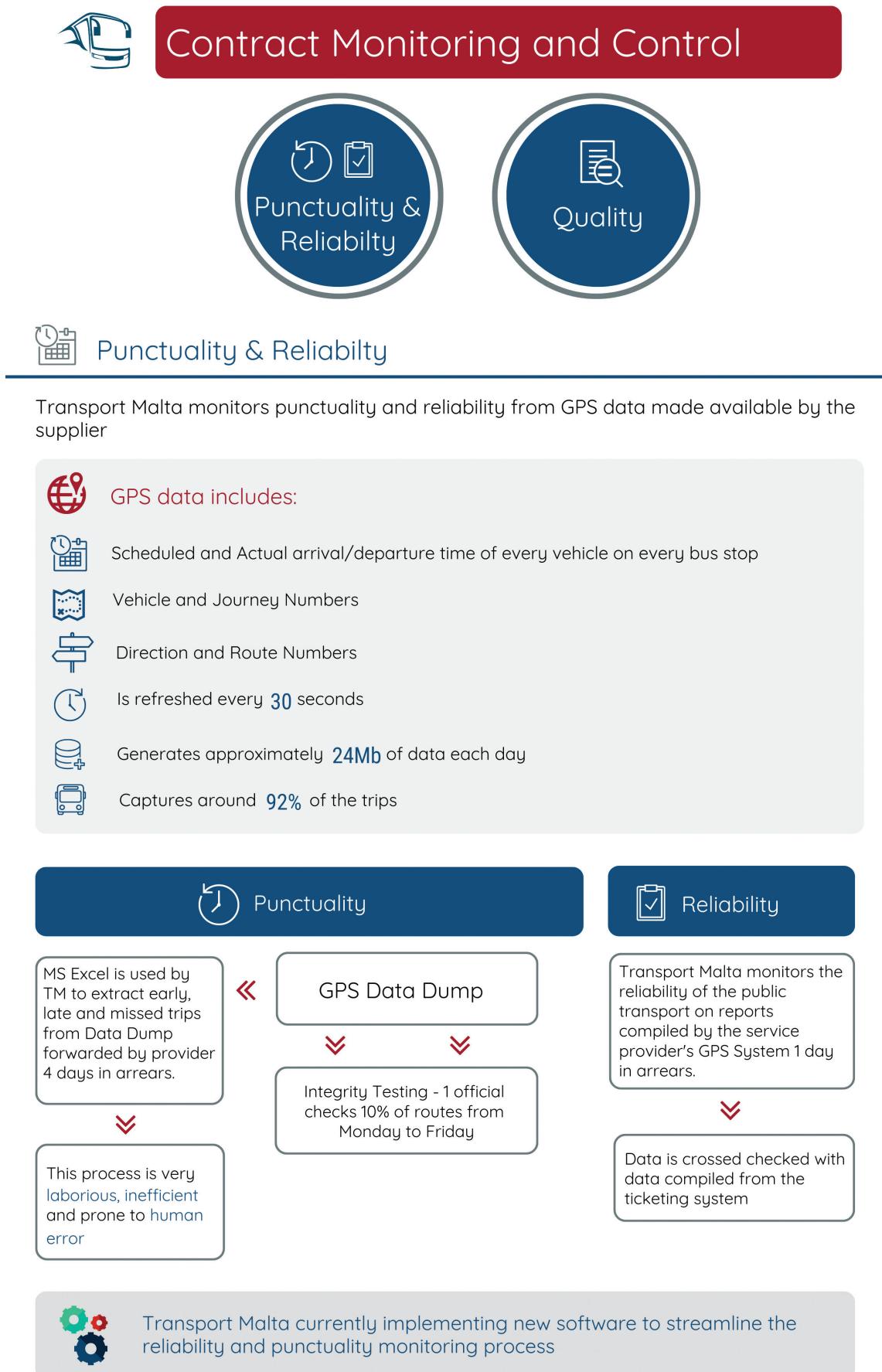
## Contract Monitoring and Control

**This chapter presents NAO’s analysis on the way TM is securing visibility on the Public Transport service and what monitoring mechanisms are being utilised so that the PTU ensures that the deliverables detailed in this agreement are being achieved or otherwise.**

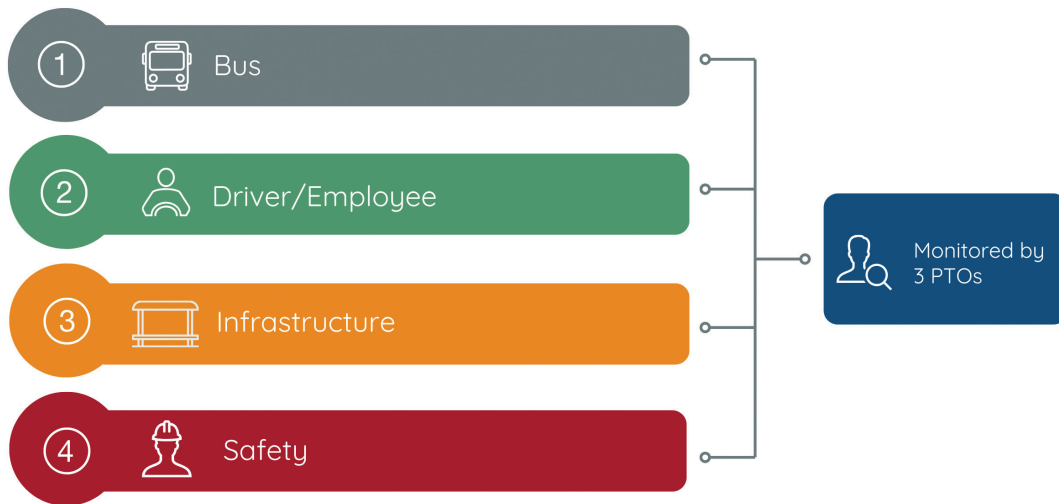
Meetings with the PTU, coupled with the contract review presented in the preceding chapter, led the audit team to classify the service levels into three categories namely:

- **Punctuality** – the ability of the service provider to ensure that each bus departs from the starting point on each bus trip within the pre-set maximum time variance;
- **Reliability** – the ability of the service provider to ensure that all bus trips are performed and according to the pre-established frequencies; and
- **Quality** – service quality is measured by the Operator’s ability to provide a service up to the contractually determined standards in four particular areas, namely safety, driver/employee related, vehicle condition and infrastructure.

**Figure 2: Contract Monitoring and Control**



## Quality



### Monitoring by Transport Malta



Transport Malta employed 3 PTOs on 4 shift basis.



Deficiencies are logged up to 5 days after they are identified



Lack of resources reduced Transport Malta's visibility on service quality



PTOs not duly bound to follow roster strategically set up to cover busy routes



Time taken for PTOs to log data lengthens the time to take the necessary corrective actions required

### NAO Fieldwork - Inspections



NAO officials conducted overt inspections with PTOs



NAO officials conducted a Mystery Shopping exercise on PTO's performance



Inspections carried out adequately but could be improved in terms of consistency and completeness

### **3.1 Monitoring of reliability and punctuality is cumbersome: Prone to human error**

- 3.1.1** TM uses Geographical Positioning System (GPS) data, supplied by the service provider, to monitor reliability and punctuality. This data tracks the movement of every vehicle used to provide the public transport service. With a refresh rate of 30 seconds, the data, amongst other details, includes: the scheduled and actual times of both the arrival and departure for every vehicle on every bus stop; the vehicle and journey numbers; direction; and route number. TM asserted that these details are collated daily by the service provider and supplied in the form of a data-dump (in Microsoft Excel format) to the PTU, albeit with a four-day delay. The Unit also highlighted that the provider has granted to it access to live streaming of this GPS data. Specifically, this enables the PTU to actively monitor any of the routes being performed at any point in time on screen. NAO observed that this system also supports a playback facility that enables TM to recall data on any trip up to two months after the actual trip itself.
- 3.1.2** During meetings with TM, the audit team was additionally informed that, while service punctuality is calculated by the Unit solely on the abovementioned raw data dump, the service provider also makes available to TM a readily compiled report on service reliability (based on the same raw information) as well as a report on the data generated by the ticketing machines installed on every vehicle.

#### **Measurement of punctuality and reliability service levels is too labour intensive and prone to error**

- 3.1.3** The monitoring of the service levels related to punctuality and reliability is performed by the PTU through the processing of the aforementioned daily GPS data supplied by the service provider. During meetings with TM, NAO was informed that in the case of punctuality the latter copies this data onto its own workstations and re-organises it in order to calculate any late and early trips. It is to be noted that, amongst other details, the GPS data shows the time each vehicle arrives at every bus stop, for every performed trip. Through such information, the Unit then proceeds with its labour-intensive calculations to determine whether any penalties are to be applied according to the conditions stipulated in the contract. Similarly, with respect to reliability, although as already stated a report is made available by the supplier, the PTU still has to engage in a labour intensive process to cross check its contents with other data sources (namely the ticketing data which will be discussed later in this Chapter) and to determine what penalties are applicable in defaulting incidents.
- 3.1.4** The audit team observed that, up till time of writing of this report, TM did not have dedicated software through which it could automate the processing of such a vast dataset (which averages 24 megabytes of excel data to cover one full day of operation). This therefore means that processing must be carried out mostly through highly repetitive human input.

As part of this review, the audit team observed TM officials performing this laborious task. Through this exercise, NAO confirmed that this process is highly inefficient due to the extensive size of the data being handled, basic software used and the process relying heavily on human input. TM asserted that the sheer volume of numbers, calculations and manual input involved in this process significantly increases the risk of error. In order to mitigate this risk, a double-checking process was applied, notwithstanding the increased workload on the PTU's staff. During meetings with the audit team, TM further explained that due to the high allocation of human resource hours towards this inefficient system other functions, particularly those related to the forming and analysis of intelligence on the public transportation service, are mostly given a distant second priority.

3.1.5 Notwithstanding, as at time of writing, the PTU asserted that it was in the process of implementing new Information Technology (IT) Software with the aim of streamlining the reliability and punctuality monitoring processes. During meetings with the Unit, the audit team was shown a works-in-progress version of this software, with TM Management explaining that user testing was being carried out.

### **NAO Observation**

3.1.6 NAO is concerned with the lack of data processing automation in the face of such large datasets, as these inevitably led to the necessity of very labour-intensive interventions. Apart from being highly inefficient, this practice is more prone to human error and absorbs practically all the PTU's administrative resources. This Office however acknowledges the Unit's effort to introduce a new IT system which, through its automation, will improve efficiency and mitigate these challenges.

### **Integrity testing of GPS Data through which punctuality is monitored captures less than 10% of bus routes**

3.1.7 As stated earlier, the monitoring of service levels related to punctuality is fully dependent on the data being generated and forwarded by the service provider. When enquiring on how TM ensures that this information is reliable, NAO was informed that the PTU carries out a verification exercise. This exercise involves the deployment of one official to various randomly selected bus stops during weekdays to monitor and report on the time buses pass by or stop at the respective point. This information is then verified by comparing it with the daily GPS dump forwarded by the operator. However, when asked on the number of trips being covered by this official, TM acknowledged that this process covers less than 10% of all daily routes (excluding weekends) performed by the operator in Malta. Nonetheless, it is noted that this official would not be observing all the trips of the selected routes, but only a portion of these for the duration of the conducted checks. TM also highlighted that this official would visit one bus stop in the morning and another in the afternoon (which



stops would be considered as high volume) and take note accordingly. The Unit further asserted that, to date, these checks yielded only one minimal discrepancy, which was easily resolved.

### **NAO Observation**

**3.1.8** NAO is concerned with the level of integrity testing of the GPS data used to monitor the performance of the service provider. This Office is of the opinion that having one official, deployed only on weekdays and covering a portion of trips being performed on less than 10% of bus routes, is not methodologically sufficient to ensure that the GPS data as a whole is reliable. This issue is exacerbated when one considers that this data is the main measure being used to monitor the punctuality of the service being delivered.

### **Reports used by TM as basis for measurement of service reliability are generated by the service provider itself**

**3.1.9** During its fieldwork, NAO observed that for the PTU to determine the number of missed trips from the forwarded GPS data dump, a very labour-intensive exercise needs to be carried out. However, as already mentioned, the service provider does itself compile and, within 24 hours, makes available to TM a report identifying missed trips, even if it does not specify the time of such defaults. The audit team noted that, in monitoring the public transport's reliability, the Unit predominantly makes use of this latter report.

**3.1.10** Given that this report is compiled by the service provider itself, the audit team enquired whether any integrity testing is being carried out on this document. In reply the Unit highlighted that this report is compared to ticketing information which is also supplied by the provider. This data is generated by the ticketing machine on every vehicle and shows how many tickets are sold during every trip. During meetings with NAO, the PTU explained that trips reported as missed are cross checked with ticket sales. This is done to either confirm if these trips actually did not occur (that is, in the case that no ticket sales were recorded), or whether there was a possible failure in the GPS equipment notwithstanding that the trip still occurred (that is, in the event that ticket sales were still registered).

**3.1.11** Notwithstanding, NAO is also informed that the new IT software (already mentioned previously in this Chapter) will enable TM to identify which trips were missed from the GPS data dump directly, thereby eliminating the need for the PTU to rely on the supplier generated report.

## NAO Observation

3.1.12 NAO acknowledges that the Unit's monitoring of the public transportation service is dependent on the GPS information being forwarded by the service provider. This Office is however concerned with the fact that the Unit is relying on reports generated by the service provider itself, as this is not deemed good practice in view of obvious risks.

### 3.2 TM's service quality inspection system could be improved

3.2.1 The contract under review contains service quality requirements other than those relating to reliability and punctuation. TM splits these into four compliance categories, namely bus (e.g. signage, vehicle cleanliness etc), driver-employee (e.g. attire, communication skills etc), infrastructure (e.g. bus stop condition, cleanliness of 'Park & Ride' and termini etc) and safety-related (e.g. torn or unthreaded tyres, seat condition, etc) . NAO was informed that, unlike reliability and punctuality, these are assessed during physical inspections performed by the Unit's own Public Transport Officers (PTO). These officers are responsible for the reporting of any identified deficiencies to the PTU's Head Office for the latter to take any necessary corrective action.

#### TM only employs three PTOs to carry out on-the-ground inspections

3.2.2 To address the on-the-ground inspections mentioned in the immediately preceding point, TM employs three uniformed PTOs on a shift basis, seven days a week including Public Holidays. Each monitored day is split into three segments namely, morning (05:30 to 13:50), afternoon (10:00 to 18:00) and evening (15:00 to 23:00)<sup>2</sup>. NAO was informed by the Unit that each PTO is deployed on a shift basis designed to cover each one of these segments within three consecutive days, followed by a day off.

3.2.3 NAO however notes that, realistically, this shift system requires a minimum of four officials in order for TM to have an uninterrupted inspectorate presence. This would mean that, at best, only one inspector would be deployed at any one time and that such a number would not allow for any scheduled (such as vacation leave and required office time at TM Headquarters) and/or unscheduled (such as sick leave) absences. When presented with this consideration, the Unit acknowledged the capacity limitations created by its three-man complement and confirmed that it is not uncommon for some days to have one of the aforementioned time segments not being covered by an inspector on the ground.

<sup>2</sup> The three shifts cover the daily operational hours stipulated in the contract. It is to be noted that this service agreement does not include night-time operations and any trips performed during such hours are extraneous to the contract under review.

### **NAO Observation**

3.2.4 This Office is concerned with the fact that the PTU employs only three PTOs on a roster that, as a minimum, requires four officials to ensure the deployment of at least one officer at any time. NAO further asserts that the sum of all factors and the logistical complexity of this service are of such a scale that, even if the Unit manages to ensure the inspectorate presence of a single officer at any time, it is simply not enough to effectively monitor the service in question.

### **Deficiencies identified through inspections are not reported back to TM Headquarters daily**

3.2.5 TM informed NAO that PTOs are supplied with a checklist for each one of the four inspection categories identified in 3.2.1. TM noted that PTOs are required to physically inspect the vehicles from the outside and inside, climb onboard for the whole or part of the trip and report back on any identified deficiencies. The Unit highlighted that any such identified deficiencies are manually noted by the PTOs on the aforementioned paper-based checklists, and are later inputted into an excel sheet back at the Authority's Office.

3.2.6 During meetings with TM, it was however highlighted that PTOs generally report for work directly at the Valletta bus terminus and leave from there to go home. In view of this, the electronic logging of identified deficiencies only takes place when PTOs call in at TM's offices which, in some cases, may be up to two days after the actual inspection is performed. The PTU also mentioned that for the operator to be officially notified of identified deficiencies, a formal notification needs to be issued. However, this might take days to complete, with the total timeframe from the date of inspection to the issuance of this letter, at instances, even taking up to five days.

3.2.7 In view of this, TM Management stated that it was planning to introduce tablets for PTOs to input their reports more efficiently. Specifically, the intention is that PTOs would input identified deficiencies directly onto these devices. Such devices would be linked to the PTU's IT system and would also promptly notify the service provider with any inputted deficiencies, thereby eliminating the aforementioned delays. As at time of writing, NAO was informed that this initiative was only at project specification stage.

### **NAO Observation**

3.2.8 The time taken from the identification of a deficiency to when the service provider is officially notified is, in NAO's opinion, considered excessive. Such instances significantly slow down the process of resolving any deficiencies, which translates in the service running at a lower level of quality than what is contractually agreed, for a longer period of time. This Office however acknowledges the Unit's intention of introducing portable devices which may mitigate this issue.

## Inspection roster is not rigidly applied

- 3.2.9 Through its review, the audit team observed how the PTU's management issues daily rosters. These rosters identify where each PTO is to apply his inspection effort for the day. Nonetheless NAO was also informed that even though the Unit endeavours to draw this roster in a systematic manner to cover the whole bus fleet over a period of time, PTOs are allowed leeway and may therefore divert from this schedule if they deem fit. In fact, during a mystery shopping exercise carried out by the audit team (discussed further in section 3.2.13), such deviations were observed.
- 3.2.10 In explaining further, the PTU asserted that such deviations would, amongst other reasons, sometimes occur due to ad hoc situations which would merit an immediate inspection, or to follow-up on already identified deficiencies, particularly those which would be of an urgent nature. TM's management also asserted that the issued roster is to be treated as a guideline, with PTOs being encouraged to focus on conducting as many inspections as possible, even if at the cost of deviating from this document.

### **NAO Observation**

- 3.2.11 This Office acknowledges that a certain amount of leeway is required so that deployed PTOs may act faster on-the-ground if certain situations so merit. NAO is however concerned with the fact that this practice, combined with the limited available inspectorate staff, results in the PTU not being able to systematically monitor the whole network, exposing the latter to obvious risks.

## On-the-ground inspections are carried out adequately but could be improved

- 3.2.12 During this review, the audit team sought to assess the manner by which inspections are conducted by the Unit's PTOs. To get an understanding on how such inspections should be carried out, the audit team accompanied two of these officers on a number of inspections, with the latter explaining the process to the team. During these visits it was observed that the inspections carried out were generally thorough, even though there were a few instances in which deficiencies were, in NAO's opinion, not acted upon decisively or even completely unidentified by the inspector.
- 3.2.13 In order to obtain a more realistic view of how such inspections are carried out on a day to day basis the audit team then conducted a mystery shopping exercise on all three inspectors on different dates. This exercise was also intended to benchmark the quality of these inspections against that discussed with the same officers when the audit team accompanied them overtly. During this exercise the audit team noted that, while a good number of inspections were carried out rather similarly to those observed during the overt sessions, there were others which were conducted in a somewhat less disciplined manner.

### **NAO Observation**

3.2.14 NAO is somewhat satisfied with the quality of inspections observed during its fieldwork. However, it still feels that improvements can be made to the day-to-day implementation of this monitoring tool, mainly in terms of the consistency by which these inspections are carried out and the completeness of the tests conducted. This observation is of particular importance considering that these inspections constitute the only tool at the Unit's disposal to gain visibility of the service's on-the-ground operations.

### **3.3 More attention could be given to the Unit's Customer Care function**

3.3.1 The customer care function relating to the local public transportation service is handled through two main channels. Specifically, while the service provider is contractually bound to set up a customer care function of its own, TM also receives requests/complaints directly from service users.

#### **TM does not have an official documented procedure on how to handle customer complaints related to public transport**

3.3.2 In conducting this study, NAO assessed whether the PTU has the necessary mechanisms in place to handle complaints received on the public transportation service. However, TM management acknowledged that no formal standard operating procedure was in place as at time of writing.

### **NAO Observation**

3.3.3 Perceiving the customer care function as one of utmost importance, NAO is significantly concerned with the fact that the PTU has no formal process by which to handle customer queries or complaints. Such a shortcoming, in NAO's opinion, could lead to TM not being able to process such requests consistently and comprehensively thereby creating a negative impact on the latter's projected image with its customers.

#### **Progress on complaints received by TM directly from customers is not comprehensively recorded**

3.3.4 During meetings with the audit team, the Unit asserted that complaints, suggestions and information requests from the general public are received by TM through an outsourced call-centre. While the requests for information are handled by this call-centre through the use of documented manuals provided by the PTU itself, this Office was informed that complaints and suggestions are forwarded to the Unit in a daily report. The PTU then populates an internal

database with these complaints and splits them into several different categories based on the subject matter (e.g. bus condition, capacity, driver, punctuality, etc.).

3.3.5 The audit team queried the Unit on how these complaints and their actual resolution are monitored and tracked. In reply, TM management noted that complaints are currently only tracked until they are registered. NAO was also informed that the date of resolution and any action taken are not recorded by the PTU. While acknowledging this as a concern, TM management stated that it will soon be looking at a solution to this situation, possibly by utilising the customer care queuing system used by other directorates within TM. This system, NAO further learnt, would enable the tracking of the progress registered on each complaint, up until its resolution.

### **NAO Observation**

3.3.6 It is this Office's opinion that any registered information, including the lodging of complaints, needs to be complete and with a clear audit trail for it to be dependable and of full use to the organisation it belongs to. To this end, NAO perceives elevated risks in the PTU's current system whereby filed complaints are not being recorded up to their closure. In such instances, NAO perceives the possibility of complaints not being addressed in a timely manner or not at all.

### **Monitoring of service provider's customer care function is incomplete and unrecorded**

3.3.7 The public transport service contract stipulates that the service provider is to set up a customer care call centre to deal with any received requests and/or complaints. This Office was informed that the PTU monitors whether the operator is satisfying this contractual obligation by performing random mystery shopping exercises. These are namely carried out through phone-calls to the operator's purposely set up call-centre to request information about the service. The Unit explained that most of these calls are requests for information not related to complaints. TM further informed NAO that, during these calls, it records the time it takes for the operator to take the call, the disposition of the telephone operator handling the request and the quality of the information provided. TM however acknowledged that it does not employ systematic monitoring on the provider's customer care function.

### **NAO Observation**

3.3.8 The lack of a systematic monitoring system on the provider's customer care function reduces the PTU's visibility over the operator's performance in this respect. This, NAO notes, may position the Unit unfavourably to identify and act, in a timely manner, on any reduction in the quality of this function.

### 3.4 Recommendations

- 3.4.1 NAO acknowledges that the PTU is in the process of introducing an IT system to automate processes which currently absorb most of the Unit's office-based human resources. The PTU is nonetheless encouraged to expedite this implementation so that its benefits are reaped at the earliest. NAO also suggests that, once such human resources are relieved from what are currently deemed overly labour-intensive tasks, these are redirected towards other functions which would assist the Unit to form and analyse additional intelligence on the public transportation service.
- 3.4.2 While this Office is not in a position to contend the reliability of GPS data, it still proposes that TM considers increasing the number of on-the-ground inspections intended at verifying its integrity. The importance of this measure emanates from the fact that this data is the sole basis in which the Unit roots several of its monitoring mechanisms.
- 3.4.3 This Office also suggests that, as much as possible, the PTU refrains from relying on information which has already been processed by the service provider itself, thereby securing a higher level of comfort on the integrity of this information. NAO however once again acknowledges the Unit's efforts to introduce a new IT system which will automate most administrative processes related to the monitoring of the public transport service and possibly also eliminate such dependency.
- 3.4.4 NAO highly recommends that the PTU engages in an internal study to determine the number of inspectorate staff required to ensure increased visibility and a more accurate representation of on-the-ground day-to-day operations. Should internal resources or external recruitment prove difficult to secure, the PTU could explore the possibility of outsourcing required resources. This Office also suggests that TM considers the introduction of non-uniformed inspectorate staff, and consequently the concept of on-the-ground mystery shopping, for an added layer of visibility in its monitoring effort.
- 3.4.5 In view of the upcoming introduction of the new IT system (recommendation 3.4.1 refers), the PTU is encouraged to invest, as soon as possible, in the necessary electronic devices intended to streamline the reporting process of deficiencies identified during on-the-ground inspections. This Office points out the importance of such devices being compatible and able to communicate seamlessly with the above-mentioned system so that maximum efficiency is secured in this upgrade.
- 3.4.6 While NAO does not contend the need for inspectorate staff to be afforded some leeway in their operation, it recommends that the PTU ensures that the public transportation service, as a whole, is thoroughly monitored through a more systematic approach. Specifically, the Unit needs to absorb such a leeway in its inspectorate function, but not at the cost of having the transportation network not being monitored comprehensively. NAO suggests that the Unit's approach to this should be rooted in a formalised risk-based profiling system

on the entire network. This Office acknowledges that, in order for this to be successfully implemented, the PTU's on-the-ground human resources need to be bolstered (reference to recommendation 3.4.4 is made).

- 3.4.7 In addition to the immediately preceding point, the Unit is also encouraged to take the necessary measures to ensure that the quality of inspections being carried out by its inspectorate staff is more consistent throughout.
- 3.4.8 This Office also strongly recommends that, at the earliest, the PTU draws up and formally implements a standard operating procedure which governs the processes within its customer care function.
- 3.4.9 As for the manner by which the PTU documents received complaints, NAO strongly suggests that these are thoroughly recorded from their receipt up to their final resolution. In so doing, a clear and dependable audit trail is preserved, thereby enabling the Unit to, inter alia, track progress of registered complaints.
- 3.4.10 Finally, this Office recommends that a more systematic and comprehensive approach is adopted by the PTU in monitoring the performance of the operator's customer care centre. This would put TM in a better position to identify and resolve, in a timely manner, any shortcomings in this contractual obligation from the operator's part.





# Concluding Remark

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This Office notes that the contract document governing the local public transportation service, while generally satisfying principles of good practice, has a number of shortcomings, particularly relating to weaknesses in certain important performance and penalty-related clauses. This Office however notes that, while the PTU can consider revisiting its approach on how some of these clauses are interpreted, the latter seems to be investing considerable effort in extending, as much as possible, its visibility on the service in question. Nonetheless, NAO acknowledges that the overly labour-intensive office-based monitoring processes and shortage of on-the-ground inspectorate staff limit the Unit's efficiency and effectiveness by which it obtains visibility on the service in question.

This Office positively notes the PTU's efforts to introduce a new IT system which is intended to automate most of the current labour-intensive processes, as well as the Unit's intention to increase its on-the-ground visibility through improved efficiency with the supply of electronic aides to its inspectorate staff. Should such a system be successfully introduced, TM would benefit from significant gains, particularly in the form of office-based resources being freed up and redirected towards performing other tasks. Such a move would give the PTU the opportunity to strengthen certain weaker elements of its monitoring operations, including those related to its customer care function.

As a final remark, NAO acknowledges the PTU's exhibited willing disposition towards the audit team throughout this study, particularly the former's receptiveness to proposed recommendations.

## 2019 - 2020 (to date) Reports issued by NAO

### NAO Work and Activities Report

April 2019 Annual Report & Financial Statements 2018 - Works and Activities

### NAO Audit Reports

January 2019 An Investigation of Visas issued by the Maltese Consulate in Algiers

March 2019 Performance Audit: A Review on the Contract for Mount Carmel Hospital's Outsourced Clerical Services

June 2019 Joint Audit: An Evaluation of the Community Work Scheme

July 2019 Cooperative Audit: Are adequate mechanisms in place for the designation and effective management of Marine Protected Areas (MPAs) within the Mediterranean Sea?

October 2019 Information Technology Audit: The Effective use of Tablets in State, Church and Independent Primary Schools

October 2019 Follow-Up Reports by the National Audit Office 2019

November 2019 Report by the Auditor General on the Workings of Local Government 2018

November 2019 Performance Audit: An analysis of issues concerning the Cooperative Movement in Malta

December 2019 Report by the Auditor General on the Public Accounts 2018

December 2019 An investigation of contracts awarded by the Ministry for Home Affairs and National Security to Infinite Fusion Technologies Ltd

January 2020 Performance Audit: Community Care for Older Persons