

Information Technology Audit: Malta Food Agency

June 2023





Information Technology Audit
Malta Food Agency

Report by the Auditor General
June 2023

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List of Abbreviations

AI	Artificial Intelligence
AMS	Asset Management System
BCP	Business Continuity Plan
CEO	Chief Executive Officer
CIO	Chief Information Officer
CCTV	Closed-Circuit Television
COBIT	Control Objectives for Information and related Technology
DRP	Disaster Recovery Plan
ePPS	Electronic Public Procurement System
eRFS	Electronic Request for Service
GMICT	Government of Malta Information and Communications Technology
IPS	Institute for the Public Services
ISACA	Information Systems Audit and Control Association
IT	Information Technology
LAN	Local Area Network
MAGNET	Malta Government Network
MFA	Malta Food Agency
MITA	Malta Information Technology Agency
MoU	Memorandum of Understanding
NAO	National Audit Office
PMMS	Pitkalija Market Management System
SOP	Standard Operating Procedure
UPS	Uninterrupted Power Supply
WAN	Wide Area Network

Malta Food Agency Overview

Established
April 2021



Administers the operations of:



Pitkalija in Ta' Qali



Pixkerija in Marsa



In **2022** Pitkalija at Ta' Qali generated:

€20 million



Comparison in sales turnover between
2020 and **2022**:

- Sales in fruit and vegetables increased by **13%**
- Profitability to farmers increased by **17%**
- Decrease of **7%** in food waste generation



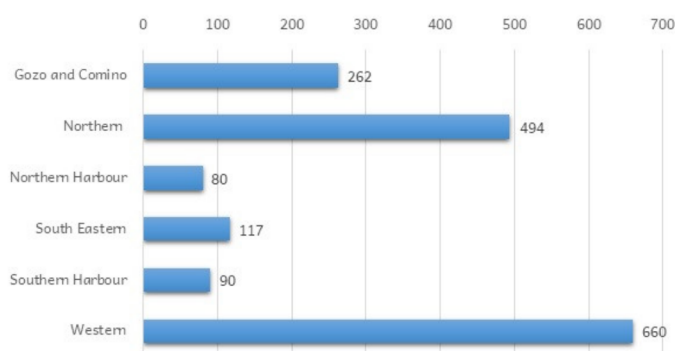
Staff Compliment

70 employees → **55** work at Pitkalija in Ta' Qali
15 work at Pixkerija in Marsa
13 out of **70** employees have teleworking arrangements at Pitkalija in Ta' Qali



The Pitkalija Market Management System (PMMS) is the core IT application in use at the Pitkalija in Ta' Qali.

Number of farmers registered with the Malta Food Agency according to region



1,703

registered full-time and part-time farmers at the Pitkalija in Ta' Qali of which:

1,441

cultivate their crops from various localities across Malta

262

cultivate their crops in Gozo



610

hawkers registered with the Malta Food Agency among which:

270

registered as street hawkers

217

registered as shop owners

Executive Summary

The scope of this Information Technology (IT) audit was to analyse the overall IT setup of the Malta Food Agency (MFA), which was established in 2021. Notwithstanding that the MFA administers both the Pitkalija and the Pixkerija markets, this audit was limited to the review of the IT setup at the Pitkali markets, focusing mainly on the Pitkalija Market Management System (PMMS), which is the core IT system utilised at the Pitkalija.

This audit also sought to determine whether the MFA has the necessary controls in place to maintain the confidentiality, integrity, and availability of data, ensure the efficient use of IT resources, to identify any potential risks and make the necessary recommendations to mitigate these risks.

Key Findings and Recommendations

Chapter two of this audit report focused on various aspects of IT management, including IT strategy and budgeting, procurement and disposal of IT hardware, a review of the IT infrastructure and operations, information security, as well as business continuity and disaster recovery. The following are the key findings and recommendations put forward by the National Audit Office (NAO) in this Chapter:

- a. The MFA lacks adequate resources to provide any guidance in the event of a security threat or incident. The NAO recommended that the MFA should apply for training on information security awareness offered by the Institute for the Public Services (IPS). Such training should be provided on a regular basis and should also be included as part of the induction training programmes for newly recruited employees within the MFA.
- b. While the NAO acknowledged the fact that a Business Continuity Plan (BCP) was recently drafted, the NAO recommended that once the BCP is finalised, the MFA should regularly review and test their BCP to ensure that it remains up-to-date, relevant and effective against evolving threats and risks.
- c. The NAO noted that the MFA did not have any Standard Operating Procedures (SOPs) that outlined how specific related tasks or activities should be carried out. The NAO recommended that the MFA develops and formalises its own SOPs, especially in the daily operations of the core PMMS application across the Pitkalija in Ta' Qali, to ensure that employees understand and duly follow the established procedures, resulting in consistent outputs and outcomes.
- d. The NAO recommended that the MFA should ensure that proper cable management and housecleaning is maintained in the main server room and the locations where the two other network cabinets are installed. Additionally, the NAO recommended that the main server room and the rooms housing the network cabinets are equipped with air-conditioning and proper ventilation where applicable. Such rooms should also be kept free from clutter and should not be used for the storage of files/documents, as this could pose a fire hazard.

Chapter three of the report reviewed the core IT software applications in use at the MFA, namely the PMMS, the MFA's website and the utilisation of social media and networking platforms. The following are the key findings and recommendations included in this Chapter:

- a. Given the significant volume of data being handled daily, the NAO recommended that the MFA conducts periodic data cleaning exercises. This should involve standardizing the point of data entry on PMMS to minimise the risk of duplication, validating data accuracy, avoiding missing (blank) fields, identifying and removing duplicate data and monitoring for any errors. These measures will ensure that all inputted data is correct, consistent and usable.
- b. The NAO was pleased to note that the PMMS application has a sound audit trail functionality, that recorded every step of the buying and selling process of fruit and vegetables centrally and in real-time.
- c. The NAO observed instances where one or two additional clients were waiting next to a client being served at the Cash Office although only one person is supposed to enter the Cash Office at a time. To address this issue, the NAO recommended that the MFA ensures that the Security Officer is stationed at the entrance at all times so that only one person is allowed to be served at the Cash Office and Customer Care at any given time.
- d. To enhance privacy and security, the NAO recommended the replacement of the perspex window at the Cash Office with a cashier window equipped with a deal tray. Furthermore, a metal shutter or roller blind should be installed to cover the perspex when the Cash Offices closes, allowing the cashier to reconcile cash transactions in privacy. The NAO also suggested minimising the use of cash transactions and providing hawkers with alternative electronic payment facilities.
- e. The NAO noted that there is no specific cut-off date for hawkers to renew their yearly licences and there is no enforcement mechanism for hawkers who repeatedly fail to renew their annual licence over several years. The NAO recommended that the MFA implements a system that notifies hawkers to renew their yearly licence within a specific timeframe. Furthermore, the system should trigger an alert if a hawker fails to renew his/her annual licence within the stipulated timeframe, preventing them from entering the Pitkalija and purchasing fruit and vegetables until their licence is renewed.
- f. Whilst the Cash Office is equipped with Closed-Circuit Television (CCTV) cameras, to enhance security and restrict access to authorised personnel, the NAO recommended that the MFA installs an access control card system or numeric pad at the back door of the Cash Office. This would ensure that only authorised personnel could enter this Office.
- g. The NAO recommended that the MFA website is designed to support dual languages, allowing user to access content in Maltese or English language. Furthermore, a thorough review of the website should be conducted to identify and resolve all broken and missing links, ensuring a seamless user experience.

Chapter 1 | Introduction

This introductory Chapter provides some background information on the subject under review. This IT audit was conducted after the conclusion of the reform of the Pitkalija and the Pixkerija that came into place in 2021. This Chapter also includes the audit scope and objectives, together with the methodology adopted in attaining these objectives, followed by a brief summary of each Chapter of this report.

1.1 Background

1.1.1 The MFA was established in 2021, by the Ministry for Agriculture, Fisheries and Animal Rights, with the aim of regulating food produce from farming and fishing, while administering the operations of the Pitkalija¹ in Ta' Qali and the Pixkerija² in Marsa.

1.1.2 The role of the MFA is essentially to oversee the day-to-day operations of the legally established markets for fruit, vegetables and fish, and at the same time transform their operations towards a more traceable and fair system. As a result, a centralised system was implemented at the Pitkalija to allow more transparency and traceability of the sale of local fresh produce and give a level-playing field for everyone involved in the local market.

Functions of the Malta Food Agency

1.1.3 The Agency was set up to address some of the main weaknesses and threats in the Maltese market for food from farming and fisheries, by:

- Mitigating against some of the market failures in the agricultural sector and in the fishing industry.
- Addressing the issue of marketing barriers for individual producers.
- Addressing the vulnerability of the fishing industry due to low productivity.
- Regulating the sales and marketing of food from farming and fisheries through operational licenses and marketing standards.

¹ The Pitkali market opens twice a week in the early hours of the morning and sees hundreds of farmers drop off thousands of kilos of fresh fruit and vegetables that are then traditionally auctioned off to restaurants, shops and street hawkers, etc. It is not open to the public and is distinct from the nearby farmers' market that operates at Ta'Qali.

² Fishermen from all over the Maltese islands deliver their catch in the early mornings to licenced 'pitkala' located at the fish market, which is open almost daily from Monday to Sunday. All the catch is weighed and labelled and is then auctioned by licensed 'pitkala' to the highest bidder. The auction starts at 4am sharp.

- Addressing operational issues within the Pitkalija and the Pixkerija, including management of information, storage, traceability of product, transparency of sales, fairness of auction systems and more.

1.1.4 Besides correcting for market failures, the MFA has a strategic role in creating the right business ecosystem by:

- Implementing agriculture and fisheries marketing regulations.
- Implementing Government's policies in the field of food from farming and fisheries.
- Offering market-based research and evidence to support policy and business development.
- Administering the business operations of the legally established markets, the Pitkalija and the Pixkerija.
- Supporting the competitiveness and business development of enterprises in the farming and fisheries food system by providing industrial space, infrastructure, and business advisory and engineering services.

Chapter 1

Chapter 2

Malta Food Agency's Vision

1.1.5 The vision of the MFA is *"to have locally produced food from farming and fishing of higher value"*. To move towards this vision and be part of the solution for adding value to food, the Agency works to support and strengthen the transformation of food along the value chain, supporting sales and marketing from production, trading, processing, and food manufacturing.

Chapter 3

1.1.6 The Agency's vision and mission are aligned to the fundamental principles of the EU's *Farm to Fork Strategy – for a fair, healthy and environmentally-friendly food system*³, and the strategic objectives of the Ministry for Agriculture, Fisheries, Food, and Animal Rights, particularly in terms of fostering sustainability and competitiveness of agriculture and fisheries, strengthening the institutional capacity, and improving market access and fair trading.

Chapter 4

Appendix

³ https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en

Figure 1 - Farm to Fork strategy



Source: <http://food.ec.europa.eu>

1.1.7 In order to add value to food from farming and fishing, the Agency works towards the following goals:

- To foster collaboration among farmers and fishermen and improve their bargaining power and position in the food chain.
- To ascertain that food from farming and fishing attains marketing standards, that produce can be certified with quality labels, and achieve brands of distinction.
- To modernise the agricultural and fisheries sectors by stimulating innovation, digitalisation and entrepreneurship.
- To improve operational efficiency in the food supply and value chain through better regulation, transparency, accountability, and control.

1.1.8 In 2022, the sales turnover in the fruit and vegetables market, operated by the MFA, has seen an increase of 13 per cent while contributing to an added 17 per cent of profitability to farmers in comparison to 2020 figures. A more efficient operation also led to a decrease of seven per cent in food waste generation. Overall, the Pitkalija at Ta' Qali generates around €20 million a year⁴.

⁴ Statistical data provided by the Malta Food Agency.

1.2 Organisation structure

1.2.1 The MFA translates its vision into action through its four different units: Operations and Projects, Market Regulation, Business Development and Corporate Services.

- i. **Operations and Projects** - The function of the Operations and Projects unit is to oversee the day-to-day operations of the legally established markets for fruits, vegetables and fish at the Pitkalija and the Pixkerija, as well as to plan and execute projects that result in better performance and efficiency of these markets. Another main scope of this unit is to determine the MFA's strategy, define the implementation and management of projects, ensuring that the projects meet the strategy's requirements and are executed on time.
- ii. **Market Regulation** - The main task of the Market Regulation unit is to ensure that the legislation related to the sales and marketing of food from farming and fishing is being implemented. This unit is responsible for the issue of licences, enforcement of marketing standards, and combatting food fraud.
- iii. **Business Development** - Through the work of this unit, the MFA supports the growth and development of Maltese producers in farming and fishing particularly in terms of finding new markets, both locally, and abroad. To achieve this objective, the Business Development unit engages with the different operators of the food supply and value chain and facilitates commercial agreements. Furthermore, the Business Development unit actively seeks to obtain EU funds to support innovation, digitalisation, and entrepreneurship in the Maltese food sector, also in partnership with other entities.
- iv. **Corporate Services** - The Corporate Services unit provides horizontal and vertical support services to the MFA. This function includes finance, people management and support services. This unit is the backbone of the overall operations of the Agency.

1.2.2 The organogram depicting each of the above units is included in Annex A.

1.2.3 At the time of the audit process, the MFA had a staff compliment of 70 employees of which 55 work at the Pitkalija in Ta' Qali and 15 work at the Pixkerija in Marsa.

1.2.4 The NAO observed that out of the 70 employees, 13 employees have teleworking arrangements.

1.3 Legislation

1.3.1 The Agency was established by the Prime Minister under the Malta Food Agency (Establishment) Order, 2021 (Legal Notice 7 of 2021)⁵, in exercise of the powers conferred by article 26 (1) of the Public Administration Act (CAP. 595)⁶.

⁵ <https://legislation.mt/eli/ln/2021/7/mlt>

⁶ <https://legislation.mt/eli/cap/595/eng>

1.3.2 In terms of the Malta Food Agency (Establishment) Order, the Agency shall:

- *Implement regulations and Government’s policy in sales and marketing of food from farming and fisheries.*
- *Advise the Minister and support Government policy in sales and marketing of food from farming and fisheries.*
- *Regulate the sales and marketing of food from farming and fisheries and administer the legally established markets for agriculture and fisheries.*
- *Support enterprises in the farming and fisheries food system.*

1.4 Audit Scope and Objectives

1.4.1 Notwithstanding that the MFA administers both the Pitkalija and the Pixkerija markets, this audit was limited to the review of the overall IT setup of the Pitkali markets. The NAO will thus be focusing mainly on the PMMS application, which is the core IT system that was implemented following the reform that came into place in 2021.

1.4.2 This IT audit also sought to determine whether the MFA has the necessary controls in place to maintain the confidentiality, integrity, and availability of data, ensure the efficient use of IT resources, to identify any potential risks and make the necessary recommendations to mitigate these risks.

1.5 Audit Methodology

1.5.1 The completion of the aforementioned objectives entailed a number of methodological approaches. These involved the following:

- The NAO carried out an introductory meeting with the Chief Executive Officer (CEO) and the Chief Officer (Operations and Projects) within the MFA. The purpose of this meeting was to explain the scope of this IT audit and at the same time gain a better understanding of the setup of this new Agency.
- The NAO then conducted a walkabout at the auditee site together with the Chief Officer to gather preliminary data, become acquainted with the physical setup of the Pitkalija, understand the operational aspects and the changes that the reform of the Pitkalija brought with it, since the Agency was set up.
- Following the above, an in-depth audit questionnaire was prepared and sent to the MFA. This questionnaire aimed to gather the necessary information from the auditee, prior to undertaking on-site audit visits.

- All the information and documentation collected were analysed in order to identify potential risks.
- Subsequently, the NAO carried out a number of on-site audit visits and held meetings with key stakeholders within MFA's Finance section, Customer Care, Cash Office and IT section. These visits were conducted, to gather first-hand information through observation, focusing mainly on the use of the PMMS within each section.
- Finally, the NAO drafted the report, incorporating a set of recommendations to mitigate the identified risks.

1.5.2 The audit methodology adopted by the NAO was based on the Information Systems Audit and Control Association's (ISACA) Control Objectives for Information and related Technology (COBIT⁷) for IT management and IT governance.

1.6 Structure of the Report

1.6.1 Following this introductory Chapter, the report proceeds to discuss the following:

- Chapter two focuses on the overall IT management, analysing the management of IT resources, reviewing the IT infrastructure and IT operations, examining information security, as well as business continuity and disaster recovery.
- Chapter three reviews the core software application, as well as the MFA's website and the utilisation of social media.
- Chapter four lists the management comments submitted by the MFA upon completion of this audit exercise.

1.6.2 The main conclusions and recommendations related to this IT audit are summarised in the Executive Summary of this report.

1.7 Acknowledgements

1.7.1 The NAO would like to express its appreciation to all the key stakeholders who were involved in this audit, including the CEO, the Chief Officer (Operations and Projects unit), the Chief Officer (Corporate Services unit) and personnel from the IT section, Customer Care, Cash Office and Finance sections from within the MFA.

⁷ COBIT is a comprehensive set of resources that contain all the information organizations need to adopt an IT governance and control framework. COBIT provides good practices across a domain and process framework in a manageable and logical structure to help optimize IY-enabled investments and ensure that IT is successful in delivering against business requirements- <https://www.isaca.org/resources/cobit>

Chapter 2 | IT Management, IT Operations and Information Security

This Chapter focuses on various aspects of IT management, including IT strategy and budgeting, procurement and disposal of IT hardware, a review of the IT infrastructure and operations, information security, as well as business continuity and disaster recovery.

2.1 Introduction

- 2.1.1 As mentioned earlier in the previous Chapter (Paragraph 1.2.1), the MFA is divided into four different units, namely the Operations and Projects, Market Regulation, Business Development, and Corporate Services.
- 2.1.2 The main functions of the Operations and Projects unit is to determine the MFA’s strategy, define the implementation and management of projects, ensure that the projects align with MFA’s strategy and ensure their timely execution. Furthermore, this unit also oversees the day-to-day operations of the legally established markets for fruit, vegetables and fish at the Pitkalija and Pixkerija respectively.
- 2.1.3 The Operations and Projects unit is led by a Chief Officer and supported by the IT unit, which is made up of five employees who are responsible for maintaining MFA’s network infrastructure, providing maintenance and support of all the IT equipment and managing the PMMS application, which is the core IT system used at the Pitkalija in Ta’ Qali.
- 2.1.4 The Operations and Projects unit maintains regular communication with the Ministry’s Office of the Chief Information Officer (CIO) regarding the implementation of IT-related projects, the procurement of IT equipment and to seek technical advice. The unit also collaborates with the Malta Information Technology Agency (MITA), local third-party suppliers and service providers when maintenance or technical assistance is required.

2.2 IT strategy and budgeting across the Malta Food Agency

- 2.2.1 An IT strategy is a comprehensive plan that outlines how organisations utilise technology to remain competitive and achieve their business objectives. It involves identifying and prioritising technology initiatives, allocating resources, establishing policies and guidelines, and creating a roadmap for implementing and managing information systems.
- 2.2.2 The NAO believes that strategic planning and effective management of technology investments through a well-defined IT strategy, allows organisations to optimise their resources and ensure that investments yield the expected returns.

2.2.3 During the course of this IT audit, the NAO noted that the MFA did not as yet have a formal IT strategy in place due to its recent setting up. The NAO noted that the implementation of IT projects was based on the holistic reform of the Agency. However, the NAO was informed that the MFA was in the process of developing an IT strategy for the next five years, incorporating pilot projects that will be using Artificial Intelligence (AI).

2.2.4 Meanwhile, the NAO was provided with a list of IT projects planned for implementation within the next three years. These projects primarily include the construction of a new fruit and vegetable market that will involve the adoption of new processes, grading systems, processing techniques, packaging methods and standards. With regards to the pilot projects using AI, the NAO was informed that the MFA engaged in discussions with the University of Malta for the signing of a Memorandum of Understanding (MoU).

2.2.5 In accordance with the IT strategy, organisations should develop a well-planned and realistic IT budget that effectively supports the overall goals and strategic objectives. This IT budget will then determine the financial requirements for acquiring, implementing, maintaining and supporting technology infrastructure, software applications, hardware and related IT resources.

2.2.6 The NAO noted that when the MFA was established, it decided to operate within the budgeting and procurement structures established for Government Ministries and departments. Consequently, budget estimates are compiled and forwarded to the Ministry's Office of the CIO to secure the necessary funding for the respective project/s and IT equipment.

2.3 The operational aspect of the Operations and Projects unit within the Malta Food Agency

2.3.1 Effective IT operations are crucial for maintaining a stable and secure technology environment, delivering reliable IT services, and supporting the organisation's overall objectives of the organisation.

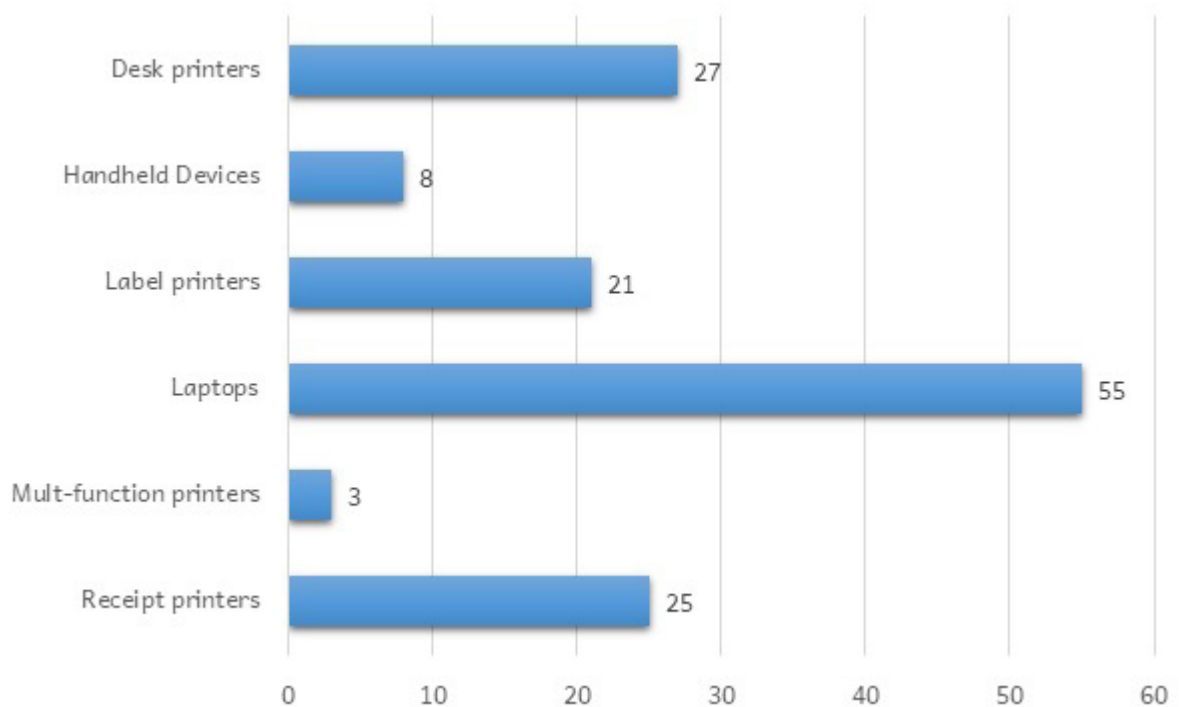
2.3.2 The NAO conducted a review of how the IT section within the MFA's Operations and Projects unit manages and maintains its IT infrastructure. This review covered the approach adopted in handling incidents and problems that arise within the technology environment, their processes for planning, coordinating and executing changes and releases in the IT environment, and their interactions with local third-party suppliers and technology vendors. The unit is also responsible for supplier management of service contracts, software licences, hardware procurement, and first line of support.

Management of IT hardware equipment

2.3.3 The NAO reviewed the processes involved in the procurement, maintenance, repairs, disposal and replacement of IT hardware equipment within the MFA.

- 2.3.4 The IT section adheres to the Government’s procurement regulations and utilises the electronic Public Procurement System (ePPS) for any call for tenders. The procurement of IT hardware, such as laptops, printers and monitors is handled by the Ministry’s Office of the CIO.
- 2.3.5 When there is a need for new IT hardware, the process kicks off with an internal request, which is raised and sent to the IT section. The request is then forwarded to the MFA’s CEO, and if approved, is sent to the Procurement section within the MFA. If the request involves the procurement of IT hardware such as laptops, printers, active network equipment (such as switches, routers or access points) etc., the Procurement section sends the request to the Ministry’s Office of the CIO. The latter procures most of the IT hardware through the centralised MITA procurement process. However, if the MFA requires specific IT hardware, which is not covered by the centralised MITA procurement process, the Procurement section either purchases it through Requests for Quotations with local third-party suppliers, or through the Government ePPS, following consultation with the Ministry’s Office of the CIO.
- 2.3.6 Since most of the IT hardware within the Agency is procured through MITA, all the hardware and software inventories are registered on MITA’s Asset Management System (AMS) and MITA’s Licence Management System respectively. When IT hardware, such as a laptop, monitor or printer is assigned to a specific user, the Agency notifies the Ministry’s Office of the CIO with the equipment’s serial number and the user’s details for updating MITA’s AMS. Additionally, the IT section, in collaboration with the Accounts section, maintains a separate Microsoft Excel sheet, to track all the IT hardware installed at the MFA, including equipment procured through MITA, Request for Quotations or a tendering process.

Figure 2 - Hardware Inventory



Source: MFA

- 2.3.7 To ensure that the IT hardware inventory remains updated, the Ministry's Office of the CIO periodically extracts a report from MITA's AMS and sends an IT hardware inventory list to the IT section for anomaly checks. At the time of the IT audit process, the hardware inventory list primarily consisted of laptops and printers, predominantly used by the agents to record all the incoming produce delivered by farmers, and the sales of produce to hawkers, on the PMMS application.
- 2.3.8 In cases where an individual retires or resigns from the Agency and the laptop is still in good working order, the IT section sends the laptop to the Ministry's Office of the CIO, for formatting and re-imaging with the latest Microsoft Windows operating system, Office 365 and security updates. Once the laptop is returned, the IT section notifies the Ministry's Office of the CIO with the identity of the new laptop owner and the AMS is updated accordingly. As part of this process, the IT section also notifies MITA to revoke the access rights of the former user and grant access rights to the new owner of the laptop.

Software inventory

- 2.3.9 In terms of software inventory, since all laptops are procured through the Ministry's Office of the CIO, the software licences (primarily Microsoft products) are centrally managed by MITA and are covered by an annual services contract between MITA and the Ministry's Office of the CIO. Consequently, all the laptops are pre-installed with Microsoft Windows 10 operating system and Microsoft Office 365, using an image provided by MITA.
- 2.3.10 The MFA recently procured and installed the SAGE accounting system at the Accounts section and implemented the Indigo Payroll System on all workstations at the Pitkalija in Ta' Qali. The software licence for the latter application is based on the number of employees using the system, while the software licence for the SAGE accounting system is on a per-device basis, corresponding to the workstation where the software is installed and used.

Maintenance and support

- 2.3.11 In terms of maintenance and support, when technical assistance is required for IT hardware, the user is instructed to contact MITA's Service Call Centre and log an incident request. The incident is then escalated to the IT section, who liaise with the Ministry's Office of the CIO when the problem is hardware related. If a laptop or a printer is still under warranty, the Ministry's Office of the CIO instructs the IT section to send the IT hardware for repairs to the designated local third-party supplier. On the other hand, if there is a hardware fault on a leased multifunctional printer, or any other IT equipment procured through Requests for Quotations or a tendering process, the IT section contacts the respective local third-party supplier via email, who will then call on site and provide the required maintenance or support.
- 2.3.12 On the other hand, if a user requires assistance with PMMS, the user will communicate internally with the IT section via phone or email. When an additional functionality is needed on PMMS, an

internal request is submitted by email to the IT section. The request is then analysed internally, and a decision is made as to whether to proceed or discard it. If the decision is to proceed, the IT section collaborates with the local third-party supplier and discusses the specific requirement. The local third-party supplier will then provide a cost estimate and an implementation plan. The IT section evaluates the supplier's proposal and if it is considered feasible and within acceptable cost and timeframe, the local third-party supplier develops and implements the new functionality on the 'test' environment. The IT section, along with the user who had raised the request, will test the new functionality on the 'test' environment, and once it is approved, the IT section will then liaise with the local third-party supplier to implement the new functionality on the 'live' environment.

Disposal of Assets

2.3.13 Finally, with regard to the disposal of IT hardware and equipment, that is either obsolete or beyond economical repair, the NAO noted that since the Agency was established in 2021, most of the IT hardware is still relatively new and therefore no IT hardware was recently disposed of. However, the NAO noted that the IT section is familiar with the Government procedures for the disposal of IT equipment, which involves the setting up of an evaluation board to assess and certify whether the equipment should be classified as obsolete and replaced or deemed not feasible to repair.

2.4 Networking cabinets

2.4.1 The NAO observed that the MFA buildings⁸ at the Pitkalija in Ta' Qali are connected to MITA's Corporate Domain and the Government network (MAGNET) as their primary network connection utilising fibre optic links. MITA monitors and maintains the network connectivity on a 24/7 basis as part of the MITA core services contract. Additionally, MITA is responsible for maintaining all the network infrastructure, including the routers and switches installed in three different blocks, and provides the necessary support for the Wide Area Network (WAN) and Local Area Network (LAN) infrastructure. The MFA also has Wi-Fi connectivity, which is provided by a local internet service provider.

2.4.2 Whilst reviewing the MFA network setup, the NAO observed that the MFA had a network cabinet installed in each of the three different blocks. The main cabinet was located in a server room adjacent to the kitchen, where the Business Development, Customer Care, Cash Office and Finance sections are situated. This main cabinet provides LAN/WAN connectivity within the building block and is connected to the other two network cabinets (installed in different blocks) via a fibre optic backbone. The NAO noted that only authorised personnel from the IT section can access this room and the key is kept by the Security Officer at the entrance gate.

⁸ The MFA at Ta' Qali consists of six building blocks to cater for the Business Development, Customer Care and Finance Department (Block 1), the Office of the CEO (Block 2), Sheds A and B used for sales, Shed C used by the Farmers Central Cooperative Society Limited, and the final block used by the Crates Washing department and the Operations and Projects unit.

2.4.3 The second network cabinet is situated at the Office of the CEO building block, providing LAN/WAN within the same building. It also provides network connectivity for Sheds A, B and C, where the pitkala/agents sell the crops to hawkers, domestic buyers, supermarkets, etc. This cabinet is located in a large room, which lies under the roof of the building block, and is partially used for storage. Access to this room can be gained either from the main door of the block during office hours (key kept at CEO's office) or through the emergency exit on the side (key kept by the Security Officer at the entrance gate). The network equipment is connected to an Uninterrupted Power Supply (UPS), which is rack mounted and installed at the bottom of the cabinet. The NAO also noted that the cabinet has a CCTV multiplexer mounted inside with an external monitor on top of the cabinet.

2.4.4 Lastly, the third network cabinet is installed in a different block and provides LAN/WAN connectivity to the Operations and Projects unit. However, the NAO observed that the network equipment in this cabinet is not connected to any UPS to safeguard it against a power surge or power cuts. The NAO noted that only authorised personnel from within the IT section can access this cabinet, which is enclosed in a false partitioned storage room, located under the staircase, that leads to another storage room above it, where the empty green fresh produce boxes are stored.

2.5 Information Security

2.5.1 Information security management is crucial for any organisation to safeguard sensitive data, comply with regulations, prevent cyber-attacks, maintain business continuity and protect its reputation.

2.5.2 Information security can be implemented through various methods, including technical controls (such as firewalls, encryption and intrusion detection systems), physical controls (such as access controls, locks and surveillance) and administrative controls (such as policies, procedures and training).

2.5.3 During the course of this IT audit, the NAO reviewed the security measures implemented by the MFA, to ensure that it is adequately protecting the confidentiality, availability and integrity of its IT systems and data from any threats and vulnerabilities.

Identity and access management ensures that authorised users have access to resources

2.5.4 Identity and access management involves managing user identities, authenticating users, authorising access to resources and enforcing security policies.

2.5.5 Since all the MFA workstations are connected to the Government network and its key systems operate on MITA's virtual hosted environment, authorised access to network resources is regulated by the related GMICT policies⁹.

⁹ <https://mita.gov.mt/portfolio/ict-policy-and-strategy/gmict-policies/>

- 2.5.6 With regards to the creation of Internet, email and CORP Domain accounts, the MFA liaises with the Ministry's Office of the CIO to submit the related electronic Request for Service (eRFS) to MITA. Users are granted access to folders and information systems based on their respective role. Similarly, when a new user account needs to be created on PMMS, the IT section within the Operations and Projects unit communicates with the local third-party supplier through email, providing all the necessary details. Once the account is created, users within the Agency are assigned different user roles according to their designation. When users no longer require access to PMMS and/or no longer working at the MFA, the respective Manager within the MFA informs the IT section to revoke access rights and delete the user account accordingly, through the local third-party supplier and/or the Ministry's Office of the CIO. Meanwhile, administrative user credentials are solely maintained and accessible to the Chief Officer Operations and Projects within the MFA, for emergency situations, such as hardware or software failures.
- 2.5.7 Once a user account is created, passwords must meet specific complexity requirements. The use of previous passwords are not allowed. Moreover, users are also required to change their password upon first logon, and every password is set to expire after a certain period of time.

Reducing the risk of cyber-attacks and minimising the impact of security incidents

- 2.5.8 In today's digital world, cyber threats are constantly evolving, making it essential for any organisations to stay updated on new threats and implement appropriate security measures to mitigate them.
- 2.5.9 Cyber-attacks can lead to the loss of sensitive information, disruption of business operations, financial losses and damage to reputation.
- 2.5.10 To safeguard against cyber-attacks, such as the spread of malware, an antivirus protection software must be installed and updated regularly. This software detects, prevents and removes malicious software such as viruses, trojans, worms and spyware. In this regard, the NAO noted that all MFA workstations are configured with MITA's Microsoft Windows desktop imaging and equipped with an antivirus software application. MITA manages the malware prevention and protection by automatically pushing antivirus definitions and updates to all workstations connected to the Government's domain network.
- 2.5.11 While having antivirus software significantly reduces the risk of cyber-attacks and protects data, it is important to note that it is not 100% fool proof. It should be complimented with other security measures, including strong passwords (as mentioned in Paragraph 2.5.7), safe browsing practices and regular software updates. Since all the MFA workstations are configured with MITA's Microsoft Windows desktop imaging, all software updates are automatically downloaded over the Government's network, ensuring that software applications and operating systems receive the latest security and operational patches from vendors, addressing known exploits and vulnerabilities.

2.5.12 Employee education plays a vital role in reducing the risk of cyber-attacks. Regular information security awareness training should be provided to employees, to help them stay updated on the latest threats and best practices for staying secure. This training should cover topics such as handling sensitive data, safe browsing practices, avoiding suspicious websites, links or ads, and recognising and responding to phishing emails.

Safeguarding all the data and IT assets within the MFA through physical and environmental controls

2.5.13 Effective physical access control mechanisms are necessary to prevent unauthorised users from accessing sensitive information. These mechanisms determine who, where, and when an individual is allowed to enter or exit and protect IT hardware, software and network equipment from damage, theft or unauthorised access.

2.5.14 As mentioned in Section 2.4, only authorised users within the MFA can access the MFA main server room and all the networking cabinets. The NAO was informed that when maintenance is required on the environmental controls, or the IT hardware equipment (mainly networking devices) installed inside the room, one of the authorised users will accompany the technician or engineer to carry out the relevant maintenance. However, the NAO observed that no visitor's log exists to keep track of who, when and why the main server room was accessed by third-parties.

2.5.15 To mitigate the risks of undetected physical intrusion and act as a detective control and deterrent for potential intruders, the NAO observed that the Pitkalija in Ta' Qali has a number of CCTV cameras installed at strategic points and sensitive areas, including the main administration block, cash office and the sheds where the buying and selling of fruit and vegetables takes place. All the CCTV footage is stored for a set period of time, before being automatically deleted and overwritten by new video footage. If a video footage needs to be retrieved from a particular CCTV camera on a specific date and time, an email request must be sent to the Chief Officer Operations and Projects to retrieve and view the CCTV footage and take the necessary action if required.

2.5.16 The NAO examined the type of environmental control mechanisms in place at the Pitkalija to mitigate against natural occurring events such as flooding, fire, lightening, power cuts and other environmental disasters. In this regard, the NAO observed that a fire suppression system was installed in the main server room, smoke detectors are installed inside the main server room and across all offices, and fire extinguishers are strategically located within the building blocks. The fire extinguishers along with the smoke detectors and fire suppression system are inspected and serviced annually by a local third-party supplier.

2.5.17 In the event of a power failure, two out of three network cabinets are equipped with a UPS to safeguard all the networking equipment such as routers and switches, from power surges or power cuts. Moreover, the Pitkalija is also equipped with diesel-powered generators, that activate automatically whenever there is a power cut, to ensure uninterrupted buying and selling of fruit and vegetables especially during the peak hours early in the morning.

2.6 Risk management

- 2.6.1 Risk management is a critical process in any organisation, as it involves identifying, assessing and managing potential risks that could impact the organisation's operations, assets and reputation.
- 2.6.2 The first step in risk management is to identify all potential risks that could affect the organisation, including internal and external risks. This involves conducting a risk assessment, using methods such as brainstorming sessions, data analysis, or other means to identify potential risks.
- 2.6.3 Once the risks have been identified, they should be analysed to determine their likelihood and potential impact on the organisation. This will help the organisation in prioritizing risks and developing effective risk mitigation strategies.
- 2.6.4 After the risks have been analysed, the organisation should develop and implement strategies to mitigate or reduce their impact. This may involve implementing security controls, developing incident response plans, or obtaining coverage through an adequate insurance policy.
- 2.6.5 Risk management is an ongoing process, and regularly monitoring and review of risks are necessary to ensure that mitigation strategies remain effective and up-to-date. This may involve conducting regular risk assessments, reviewing incident reports and updating risk management plans as needed.
- 2.6.6 Once the risk management process is complete, the next step is to draft a BCP and a Disaster Recovery Plan (DRP) at an organisational level. These plans are essential for organisations to prepare and respond to unexpected events that can disrupt their operations, such as natural disasters, cyber-attacks, power outages, and other emergencies.
- 2.6.7 BCPs focus on identifying and maintaining essential business functions, during and after a disruption, to minimise the impact of the event. A BCP typically includes a risk assessment, the identification of critical processes and resources, plans for maintaining or restoring them during a crisis, communication plans, and training employees on the roles and responsibilities in the event of a disruption.
- 2.6.8 DRPs are focused on restoring an organisation's IT infrastructure and systems following a disaster to minimise downtime and data loss. A DRP typically includes a plan for data backup and recovery, an inventory of hardware and software assets, a plan for restoring critical systems and applications, and a communication plan to keep stakeholders informed.
- 2.6.9 During the course of this IT audit, the NAO was provided with a copy of a BCP, which the MFA had recently drafted to establish procedures for the execution and recovery of business activities within the Agency following a disruptive event. At the time of the IT audit process, this plan was still a draft undergoing internal review.

2.7 Observations, Conclusions and Recommendations

- 2.7.1 The NAO was informed that MFA employees receive security alerts periodically by email through MITA’s security aware mailing list. However, the MFA lacks adequate resources to provide any guidance in the event of a security threat or incident.

The NAO recommends that the MFA should explore the prospectus offered by the IPS and apply for training on information security awareness. The NAO suggests that such training should be provided on a regular basis and should also be included as part of the induction training programmes for newly recruited employees within the MFA.

- 2.7.2 Considering that the Agency was established in 2021, and given the initial challenges it faced, and the fact that it had to be reactive most of the time to ensure business continuity, the NAO commends the initiative in drafting a BCP that establishes procedures for executing and recovering business activities at MFA and to minimise disruption in the event of an emergency situation.

In this regard, the NAO recommends that once the BCP is finalised, the MFA should regularly review and test their BCP to ensure that the plan remains up-to-date, relevant and effective against evolving threats and risks. Additionally, the MFA should ensure that it is well-documented and can be easily followed even when key personnel are unavailable or no longer working with the Agency.

- 2.7.3 The MFA adheres to the Government and MITA policies and procedures, regarding Internet and email usage, the use of portable mobile devices, information data classification, information retention and storage, amongst others. However, the NAO observed that apart from the draft BCP document, the MFA does not have any other SOPs that outline how specific related tasks or activities should be carried out.

The NAO recommends that the MFA develops and formalises its own SOPs, especially in the daily operations of the core PMMS application across the Pitkalija. This will ensure that employees understand and duly follow the established procedures, resulting in consistent outputs and outcomes.

- 2.7.4 Whilst reviewing the networking cabinets, the NAO observed that the main server room was not properly maintained. Two switches and four Wi-Fi access points were placed on top of two carton boxes next to an open cabinet, an unused monitor was placed on the floor, there were open soffit tiles, and the floor tiling was open with a power extension placed on top of CAT5 cabling. The NAO also noticed that the walls were very humid, the raised flooring was dirty, and the main cabinet needed attention in terms of cable management.

Regarding ambient temperature, the main server room had a non-functional overhead AC unit and a small wall-mounted AC unit behind the network cabinets. However, even though the temperature of the AC unit was set to 19°, the room was not sufficiently cold inside. On the other hand, the

room where the network cabinet is installed at the Office of the CEO building block lacked an AC unit, which could affect the performance of the equipment stored inside this cabinet during the hot summer months. Similarly, the network cabinet that caters for the Operations and Projects unit was enclosed in a false partitioned storage room under the stairs with no ventilation.

The NAO recommends that the MFA should ensure that proper cable management and housecleaning is maintained in the main server room and the locations where the two other network cabinets are installed. Additionally, the NAO recommends that the main server room and the rooms housing the network cabinets are equipped with air-conditioning and proper ventilation where applicable. Such rooms should also be kept free from clutter and should not be used for the storage of files/documents, as this could pose a fire hazard.

Chapter 3 | IT Software Applications

This Chapter reviews the core IT software applications in use at the MFA, namely the PMMS, the MFA’s website and the utilisation of social media and networking platforms.

3.1 Introduction

- 3.1.1 The MFA has implemented a new core IT software application to handle and manage all the operational and commercial transactions taking place at the Pitkalija in a controlled and transparent manner.
- 3.1.2 The PMMS application, which was developed by a local third-party supplier and hosted on a Cloud environment at MITA, runs on a Microsoft SQL server backend, whilst the frontend consists of a web-based form. During the audit process, the NAO observed that around 40 users were using the PMMS application, which was being accessed from network-connected devices within the Pitkalija.
- 3.1.3 Every user who is granted access to the PMMS application receives a login and a password and is assigned specific user roles based on their job description. The NAO noted that the PMMS application has an access rights control system that is based on user groups and functionality, which can be easily managed. The IT Team within the Operations and Projects unit is responsible for maintaining these access rights and managing user accounts¹⁰. They perform these tasks upon receiving an email request from the respective Manager within the MFA.
- 3.1.4 The PMMS application is integrated with another Government IT system, namely the CdB¹¹ database, allowing the automatic retrieval of basic client details upon inputting the client’s ID card number.

3.2 The PMMS application tracks the inventory and logistics of products from goods receipt onwards

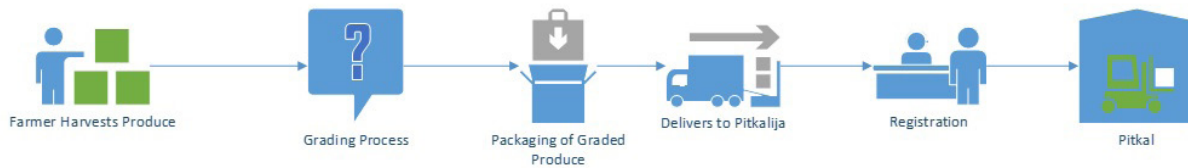
- 3.2.1 The objectives of implementing the PMMS application is to ensure that all transactions are processed in real-time to ensure traceability and transparency throughout the entire cycle.
- 3.2.2 The whole process begins with the farmer harvesting the produce, the grading¹² of fruit and vegetables into boxes, delivering such produce to the Pitkalija, and registering and recording the delivered produce on the PMMS application. A delivery note is then issued to the farmers.

¹⁰ The IT Team sends an email to the local third-party supplier whenever a new user account needs to be created. Password changes on the other hand are handled by the IT Team.

¹¹ CdB is the common database that holds information about persons, addresses, relationships between persons, streets and councils. This corporate database enables common information sharing across all Government departments and entities.

¹² Grading is the sorting of fruit and vegetables into different grades or classes according to the size, shape, colour, weight, maturity and freedom from diseases, to fetch a higher price on the market.

Figure 3 - Delivery process of local fruit and vegetables

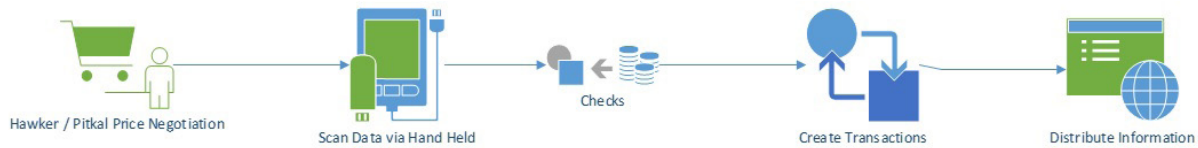


Source: MFA

3.2.3 The green crates that are used to carry fresh fruit and vegetables at the Pitkalija nowadays feature a barcode sticker that is applied to the crate upon delivery. Each barcode sticker contains information about the type of produce, its price, the farmer who cultivated the crops and the date when the item was delivered at the Pitkalija.

3.2.4 The next stage is the sales process, whereby the agent¹³ and the hawker negotiate the price of fruit and vegetables. The PMMS application, captures the hawker’s details in the system, verifies the hawker’s credit balance and whether the respective hawker has reached their credit limit¹⁴. The items to be sold to the hawker are scanned and their quantity (weight or boxes) and price are registered in the system.

Figure 4 - Sales process of local fruit and vegetables



Source: MFA

3.2.5 The PMMS keeps full track of the inventory and logistics of the product, including real-time registration and recordings of all the farmers’ produce delivered at the Pitkalija, as well as the registration of all sales made throughout the day.

3.2.6 In this context, the NAO noted that the PMMS application features an audit trail functionality that records amongst other things, the entries or changes made to the existing data according to date and time, the user who made the change, and the workstation name from which the change or entry was made. Furthermore, if changes are made to the existing data, the audit log clearly displays both the ‘old’ data and the ‘new’ data.

¹³ The MFA has a contract for service with seven Sales and Marketing agents who sell farmers’ produce in accordance with a set of rules and regulations. Apart from these agents, the Farmers Central Cooperative Society Ltd (FCCS), which hold a significant market share of more than 40%, also acts as an agent for the MFA.

¹⁴ Each hawker is granted a credit limit of €6,000 for purchasing fruit and vegetables from the Pitkalija. They are required to settle their bill within 15 days. However, there are a few exceptions to the credit limit, particularly for large supermarkets or hotels that make bulk purchases. In these cases, they are allowed to settle their bills within 30 days.

3.3 Farmers or hawkers must be registered with the Malta Food Agency in order to sell or buy fruit and vegetables at the Pitkalija in Ta' Qali

- 3.3.1 To gain entry and sell their produce at the Pitkalija, every farmer must be registered with the MFA. Upon registration, farmers are required to provide a copy of their vehicle logbook for authorisation to enter the Pitkalija, a copy of their VAT certificate, their bank details including their IBAN account number, a copy of their ID card, a passport photo and a graphical crop plan¹⁵ depicting a satellite image/orthophoto of all the parcels¹⁶ within their holding.
- 3.3.2 Similarly, hawkers must also be registered with the MFA to gain entry to the Pitkalija. Hawkers need to provide a copy of their ID card, a passport photo, a copy of the vehicle logbook for authorisation to enter the Pitkalija, and a copy of their VAT certificate upon registration. In the case that the applicant is representing a Company, a declaration letter¹⁷ containing the Company's details must be presented to the Customer Care section within the MFA. The applicant must also provide a reference letter from a local bank stating that the Company is of good financial standing.
- 3.3.3 The NAO observed that the Customer Care section is responsible for handling the registrations of farmers, hawkers, supermarkets, restaurants and domestic buyers who require access to the Pitkalija for purchasing and/or selling local produce.
- 3.3.4 With the exception of farmers¹⁸, anyone who needs to gain access to the Pitkalija, to buy local produce, is required to pay a registration fee of €10, which is then renewed annually.
- 3.3.5 Upon registration, the applicant receives an entry permit in the form of a colour-coded sticker to be affixed on the vehicle's windscreen. The Security Officer stationed at the entrance gate could easily identify (from the colour-coded sticker) whether the person entering the Pitkalija is a farmer, hawker, a company representative, domestic buyer, shop owner, etc. and verify that the vehicle is registered in the PMMS application and is thus authorised to enter the premises. These stickers are replaced yearly with a different colour code upon permit renewal for security purposes. The Security Officer has every right to stop a vehicle at the gate, if it has no sticker affixed, indicating that the vehicle is not registered and authorised to enter the premises, or if the attached sticker has expired (ex. it has a different colour code from the one being used in the current year), indicating that the farmer or hawker has not renewed their annual licence.
- 3.3.6 At the time of the audit, there were 1,703 registered farmers (both full and part-time) utilising the Pitkalija to sell their produce. Amongst them, 1,441 farmers cultivate their crops from various localities across Malta and 262 farmers cultivate their crops in Gozo.

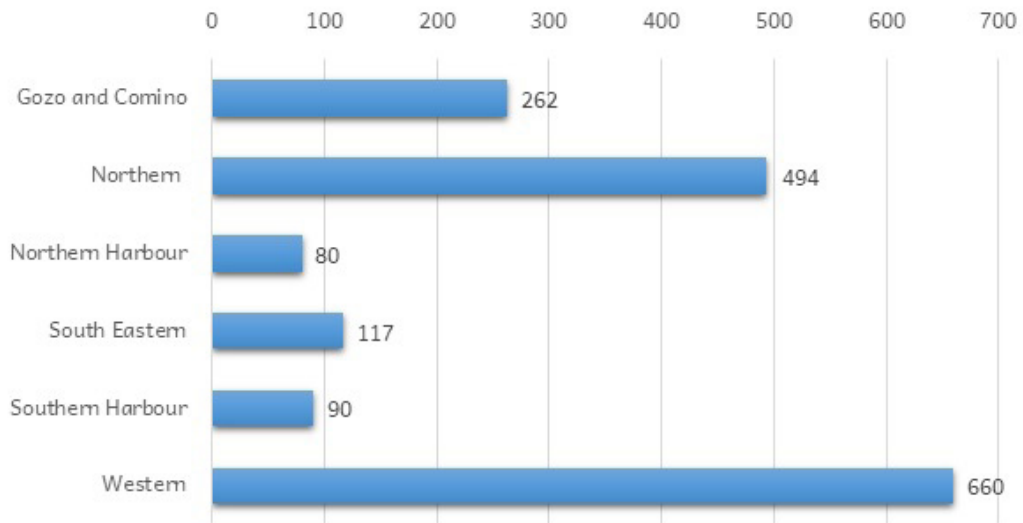
¹⁵ A crop plan represents the type of land use of each parcel within one's holding, expressed in numerical form.

¹⁶ A parcel can only be associated to one farmer and may contain one or multiple land cover polygons including arable land, fruit orchards, vineyards, olive trees, artificial sealed surfaces, landscape features, green houses or potential arable land that is not maintained in a state suitable for cultivation.

¹⁷ The declaration letter must be signed by the Company's secretary and should include all the relevant details of the Company's representative.

¹⁸ Farmers do not incur any charges upon registration with the MFA to sell their produce at the Pitkalija.

Figure 5 - Number of farmers registered with MFA according to region



Source: MFA

3.3.7 According to the statistics provided by the MFA, the NAO noted that the highest number of registered farmers cultivate their crops in the Western region (660) followed by the Northern region (494), whilst the least number of registered farmers cultivate their crops in the Northern (80) and Southern Harbour (90) region.

3.3.8 For the majority of the farmers, the Pitkalija serves as the primary source of income and main avenue for selling their produce.

Figure 6 - Vector map of Malta according to region



Table 1 - Districts classification

Districts classification	
Gozo and Comino	Il-Fontana, Għajnsielem and Comino, I-Għarb, I-Għasri, il-Munxar, in-Nadur, il-Qala, San Lawrenz, Ta' Kerċem, Ta' Sannat, ir-Rabat, ix-Xagħra, ix-Xewkija, iż-Żebbuġ
Northern	Hal Għargħur, il-Mellieħa, I-Imġarr, il-Mosta, in-Naxxar, San Pawl il-Baħar
Northern Harbour	Birkirkara, il-Gżira, Hal Qormi, il-Ħamrun, I-Imsida, Pembroke, San Ġwann, Santa Venera, San Ġiljan, is-Swieqi, Ta' Xbiex, Tal-Pietà, Tas-Sliema
South Eastern	Birżebbuġa, il-Gudja, Hal Għaxaq, Hal Kirkop, Hal Safi, Marsaskala, Marsaxlokk, I-Imqabba, il-Qrendi, iż-Żejtun, iż-Żurrieq
Southern Harbour	Bormla, il-Fgura, Floriana, Hal Luqa, Haż-Żabbar, il-Kalkara, il-Marsa, Raħal Ġdid, Santa Luċija, I-Isla, Hal Tarxien, Valletta, il-Birgu, ix-Xgħajra
Western	Had-Dingli, Hal Balzan, Hal Lija, H'Attard, Haż-Żebbuġ, I-Iklin, I-Imdina, I-Imtarfa, ir-Rabat, is-Siġġiewi

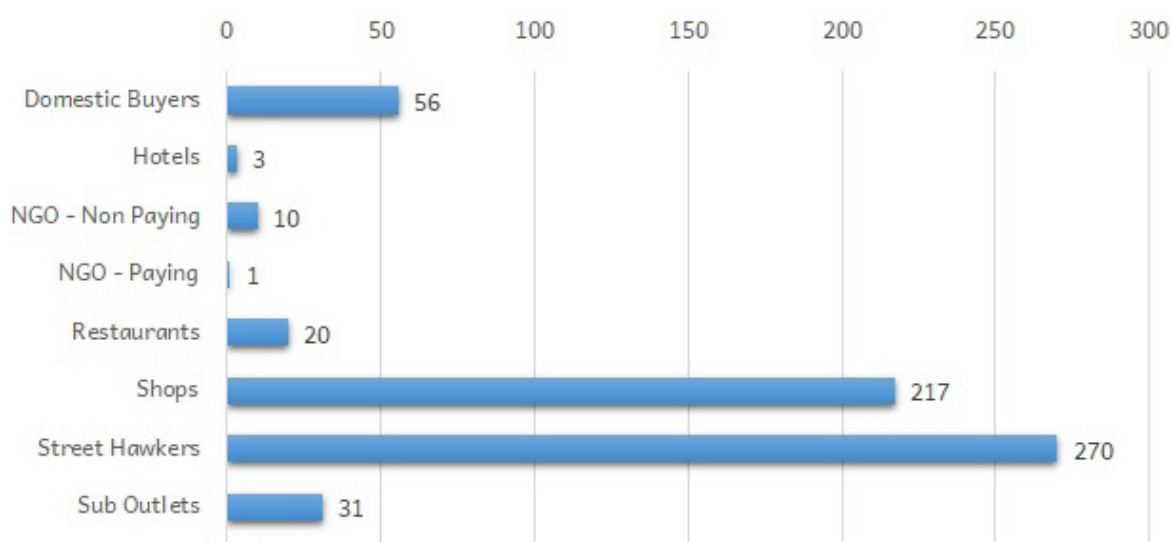
Executive Summary

Chapter 1

Chapter 2

3.3.9 The NAO noted that there were 610 hawkers¹⁹ registered with the MFA, of which, 270 were registered as street hawkers, while 217 were registered as shop owners.

Figure 7 - Number of hawkers registered with MFA



Source: MFA

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Chapter 4

Appendix

¹⁹ Anyone entering the Pitkalija to buy fruit and vegetables is registered as a hawker in the PMMS application. These hawkers are then classified in different categories, such as domestic buyers, hotels, restaurants, street hawkers, shops, etc.

3.4 The Malta Food Agency registers all the sales made in the day in real-time on PMMS

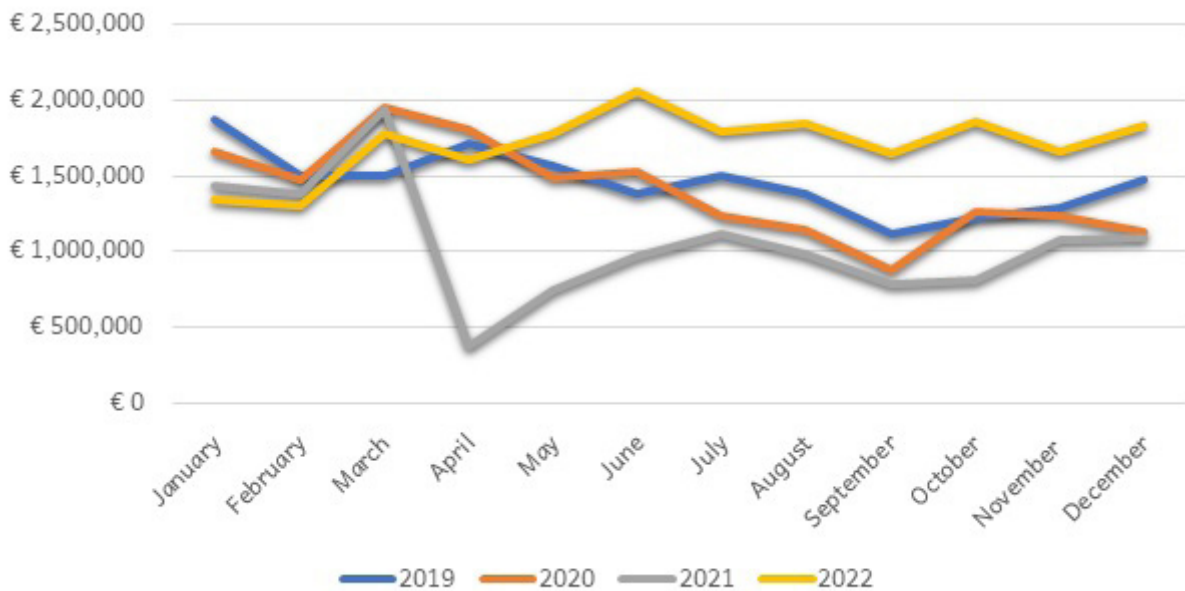
- 3.4.1 Since the reform process of the Pitkalija began in April 2021, significant progress was registered in terms of transparency, auditability, process flows and digitisation.
- 3.4.2 As highlighted earlier in Paragraph 3.2.3, the MFA registers and records all the farmers produce delivered at the Pitkalija in real-time through the use of a barcode system. Additionally, all the sales²⁰ made during the day are recorded in the PMMS application.
- 3.4.3 This comprehensive process generates a substantial amount of data within the PMMS application, and as a result, the MFA is nowadays in a better position to manage the sale of fruit and vegetables and minimise food waste. With access to this data, the MFA aims to establish a fair and unified product prices, and accurately account for the sales of the produce.
- 3.4.4 Since 2021²¹, the sales turnover in the fruit and vegetables market, operated by the MFA has increased. In fact, in 2022 the Pitkalija generated over €20 million in the sale of fruit and vegetables, an increase of around €4 million when compared to around €17 million sales in 2020.

Table 2 - Total sales of fruit and vegetables at the Pitkalija in Ta' Qali between 2019 and 2023

2019	2020	2021	2022
€ 17,496,188	€ 16,793,278	€ 12,731,634	€ 20,482,094

Source: MFA

Figure 8 - Total sales of fruit and vegetables at the Pitkalija in Ta' Qali between 2019 and 2022



Source: MFA

²⁰ The price of fruit and vegetables can fluctuate due to various factors, primarily based on whether the product is in season, the prevailing weather conditions, supply and demand dynamics, and the quality of the produce.

²¹ Between March and April 2021 there was a decline in the total sales of fruit and vegetables due to a dispute between the middlemen and the Government. This dispute arose in response to the Government’s consultation process aimed at improving the operations at the Pitkalija. However, following the establishment of the MFA in April 2021, sales gradually began to recover.

3.4.5 Despite an increase in the sales turnover in the fruit and vegetables market at the Pitkalija, the costs and risks associated with producing fruit and vegetables remain high. Apart from the fact that the running costs are always rising, farmers are facing fierce competition from imported products.

3.4.6 As part of the ongoing reform of the Pitkalija, the MFA is actively seeking to invest in the necessary facilities, to enhance the packaging of locally produced fruit and vegetables. The goal is to achieve a more appealing presentation that aligns with market standards.

3.4.7 Meanwhile, the MFA is also working towards the development of a new warehouse with the required facilities for long-term food storage. The aim is to have temperature-controlled stores whereby crops can be stored and sold as needed, thereby reducing waste. The current situation unfortunately often results in significant food waste with a considerable amount being disposed of for animal feed.

3.4.8 At the time of this IT audit process, the MFA had reached an agreement with WasteServ whereby agricultural waste, such as vegetable and fruit scraps coming from farmers and the Pitkalija, is processed by WasteServ at the Civic Amenity Site next to the Pitkalija in Ta' Qali.

3.4.9 In a circular economy model, such waste is considered a valuable resource that can be transformed into quality compost. Following the agreement between WasteServ and the MFA, the latter will distribute this compost to farmers free of charge from the Pitkalija. This initiative ultimately aims to contribute to the production of quality food for the consumers.

3.5 In line with the digitisation process, two new web applications were launched

3.5.1 Apart from the implementation of the PMMS, the MFA also launched two new web portals, namely the Farmers portal²² and the Hawkers portal²³.

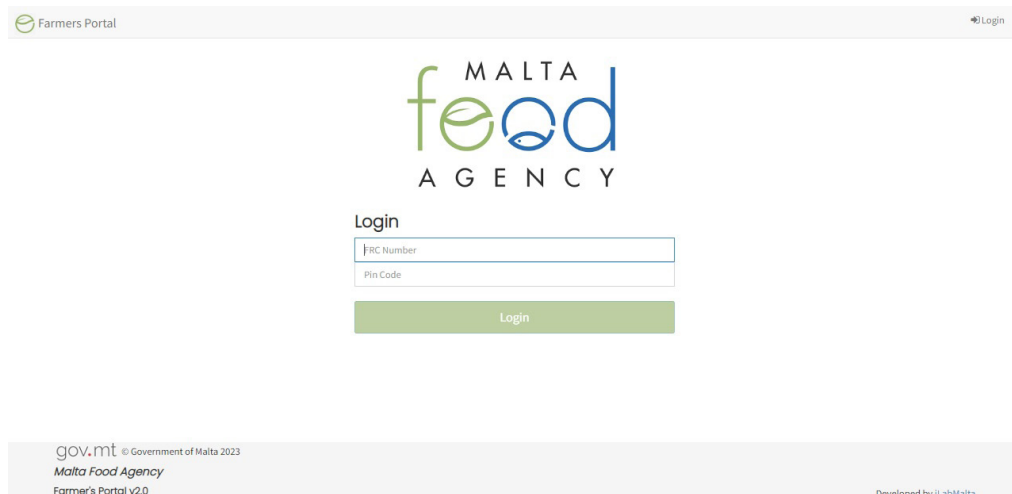
3.5.2 The web application “**ilbidwi.gov.mt**” was launched in April 2022. It provides farmers with information regarding their sales, payments received and outstanding dues. Every registered farmer is assigned a unique FRC²⁴ number (as registered in the PMMS) and a PIN code, which the farmer is required to change.

²² ilbidwi.gov.mt

²³ ixxerrej.gov.mt

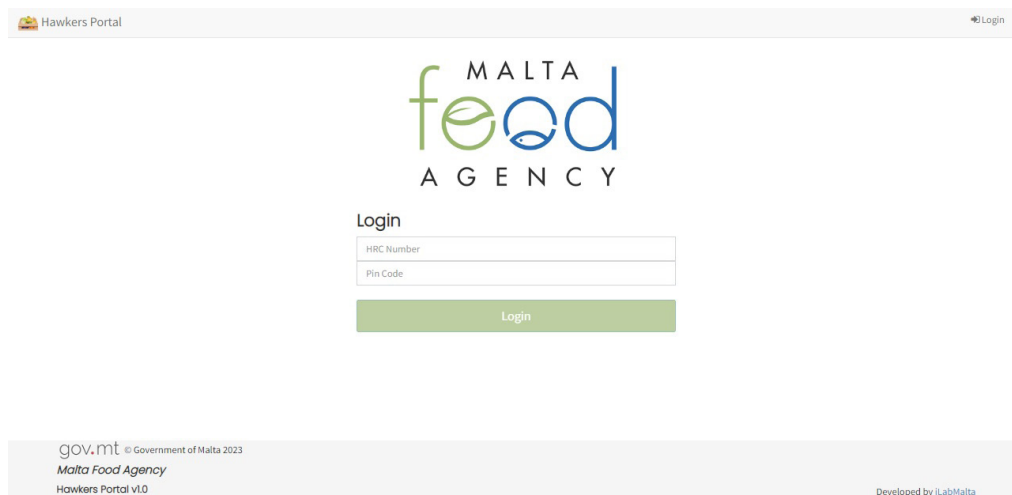
²⁴ The Farmer's Reference Code is a six-digit code that consists of two parts. The first two digits represent the locality where the crop is produced, while the last four digits represent the registration number of the farmer. These registration numbers are generated sequentially by the PMMS application.

Figure 9 - Farmers Portal



3.5.3 In addition to the above, the MFA has recently launched another web application called “**ixxerrej.gov.mt**”. This application provides hawkers with access to information about their purchases made at the Pitkalija, fruit and vegetables prices, credit terms and outstanding dues. Every registered hawker is given a unique HRC number (as registered in the PMMS) and a PIN code, which the hawker is required to change. The NAO was informed that in the near future, hawkers will have the functionality to make online payments through this portal instead of settling their dues at the Cash Office.

Figure 10 - Hawkers Portal

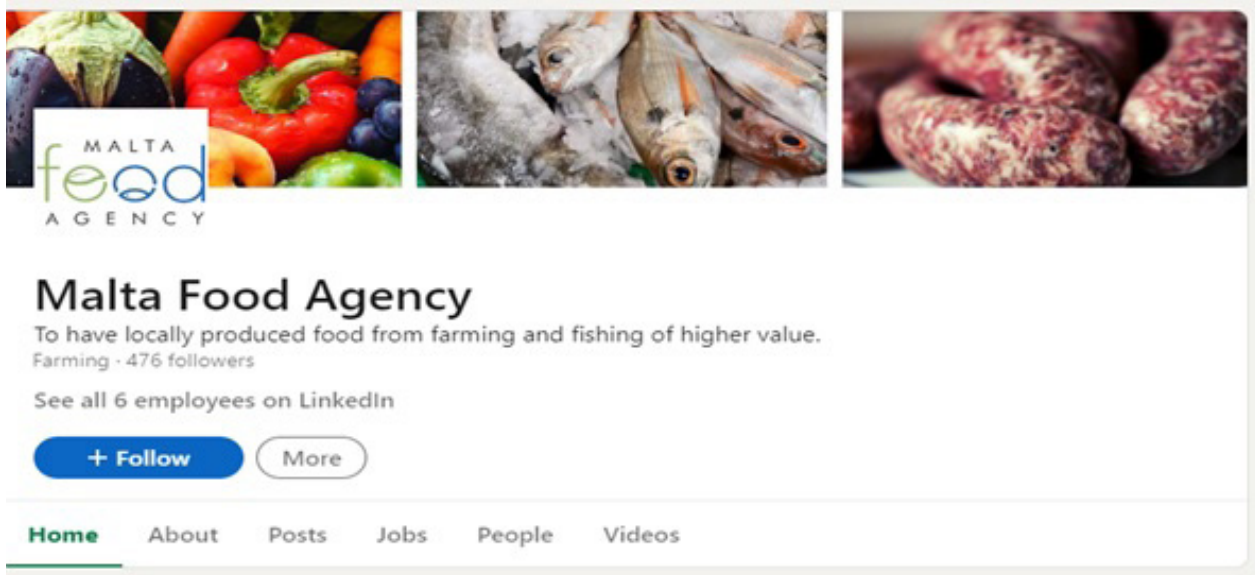


3.6 The use of social media and website to promote the agriculture and food production sectors in Malta

3.6.1 Social media platforms and websites are essential tools for businesses or organisations to thrive in today’s digital age. Recognizing this, the MFA has launched these tools to further promote locally produced food from farming and fishing and engage with the farmers, hawkers, and the general public. Through social media and website platforms, the MFA provides the latest news updates, responds to queries, and offers customer service.

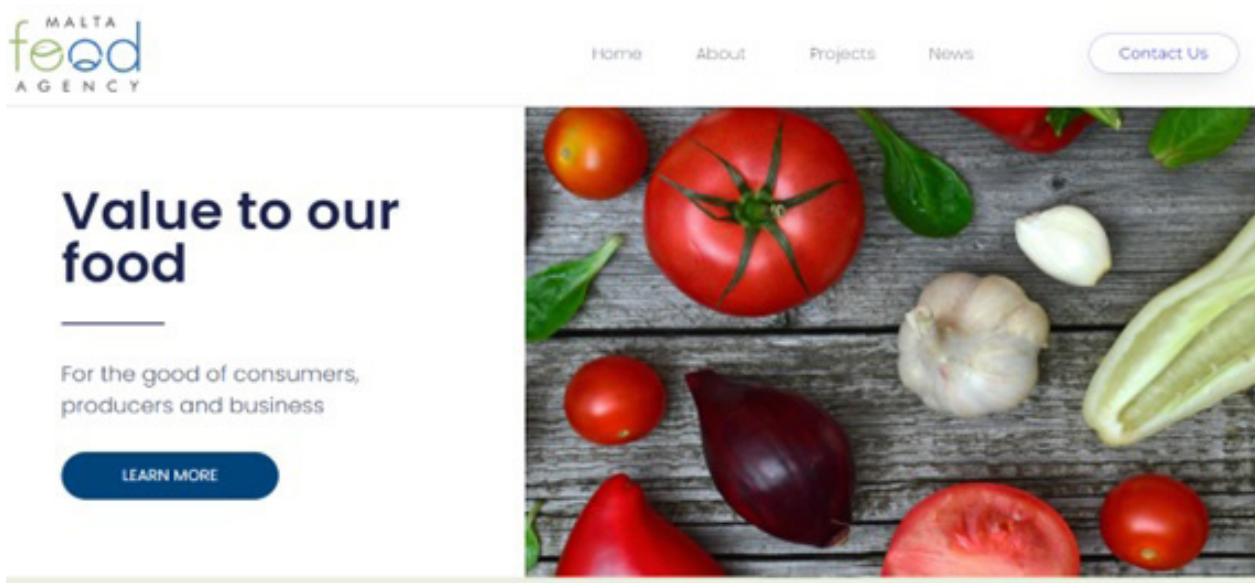
3.6.2 The NAO noted that the MFA has established its presence on various social media platforms including Twitter, LinkedIn and Facebook. At the time of the audit, the MFA’s Facebook page had reached 11,000 followers, while the MFA’s LinkedIn page had 481 followers. Both pages were updated regularly and included various news updates on related events and promotions using text, images and videos.

Figure 11 - Malta Food Agency LinkedIn page



3.6.3 The NAO also reviewed the MFA website <https://foodagency.mt> and noted that this website provides the general public with general information about the Agency, including the latest updates and news items.

Figure 12 - Malta Food Agency website



- 3.6.4 In addition to leveraging social media and websites, in January 2023, the Ministry for Agriculture, Fisheries and Animal Rights, in collaboration with the Ministry for Education, Sport, Youth, Research and Innovation, launched the first edition of the *'Let's Talk Farming'* - an education programme tailored for primary school children with the aim of promoting farming and its benefits. This programme includes lessons, educational visits and the opportunity for schools to engage in crop and fruit cultivation.
- 3.6.5 The ultimate goal of this project is to educate and increase awareness among young school children about different food systems and food producers. In fact, this program covers many themes including how food is produced, the individuals involved in its production, the job opportunities associated with farming, the role of farming in protecting the countryside, the impact of climate on farming and the protection of animals. It also looks into the benefits of responsible food consumption and the need to minimise food waste.

3.7 Observations, Conclusions and Recommendations

- 3.7.1 The PMMS application includes a reporting functionality with various in-built reports, that allow end-users to generate the necessary reports. During the course of this IT audit, the NAO requested a few sample reports. While analysing the data provided, the NAO noted that certain fields were left blank, data was at times inputted incorrectly and in some instances, duplicate data was found. The NAO was informed that this could be attributed to certain data that was imported from a previous legacy system, which did not cater for certain data fields, which are present in the new system.

Given the significant volume of data being handled daily, the NAO recommends that the MFA conducts periodic data cleaning exercises. This should involve standardizing the point of data entry to minimise the risk of duplication, validating data accuracy, avoiding missing (blank) fields, identifying and removing duplicate data and monitoring for any errors. These measures will ensure that all inputted data is correct, consistent and usable.

- 3.7.2 The NAO was pleased to note that the core IT system reviewed for the purpose of this IT audit had a sound audit trail functionality, that recorded every step of the buying and selling process of fruit and vegetables centrally and in real-time.
- 3.7.3 The Cash Office and Customer Care sections are located in the same building with a common entrance. The NAO observed instances where one or two additional clients were waiting next to a client being served at the Cash Office, although only one person is supposed to enter the Cash Office at a time.

To address this issue, the NAO recommends that the MFA ensures that the Security Officer is stationed at the entrance at all times so that only one person is allowed to be served at the Cash Office and Customer Care at any given time.

- 3.7.4 Considering the significant amount of cash handled daily, the Cash Office only has a clear perspex that separates the cashier from the client and other clients being served at the Customer Care directly opposite. Additionally, there is no privacy when the Cash Office closes, and the cashier is reconciling the cash and cheques that were deposited during the day while other clients are entering the building to be served at the Customer Care section.

To enhance privacy and security, the NAO recommends the replacement of the perspex window at the Cash Office with a cashier window equipped with a deal tray. Furthermore, a metal shutter or roller blind should be installed to cover the perspex when the Cash Offices closes, allowing the cashier to reconcile cash transactions in privacy. The NAO also suggests minimising the use of cash transactions and providing hawkers with alternative electronic payment facilities.

- 3.7.5 The NAO noted that there is no specific cut-off date for hawkers to renew their yearly licences and the system does not lock the account of a hawker who has not renewed the annual licence. The NAO also noted that there is no enforcement mechanism for hawkers who repeatedly fail to renew their annual licence over several years.

To address these issues, the MFA should establish a better system for managing licence renewals and entry permits. In this context, the NAO recommends that the MFA implements a system that notifies hawkers to renew their yearly licence within a specific timeframe. Furthermore, the system should trigger an alert if a hawker fails to renew his/her annual licence within the stipulated timeframe, preventing them from entering the Pitkalija and purchasing fruit and vegetables until their licence is renewed.

- 3.7.6 The NAO observed that employees could enter the Cash Office through a back door and employees from different sections within the building could also enter the Cash Office.

Whilst the Cash Office is equipped with CCTV cameras, to enhance security and restrict access to authorised personnel, the NAO recommends that the MFA installs an access control card system or numeric pad at the back door of the Cash Office. This would ensure that only authorised personnel could enter this Office.

- 3.7.7 The MFA website, which was developed and hosted by a local third-party supplier, is not multilingual and can only be viewed in English. Additionally, the NAO noted that the website has broken links when selecting the '*Organisational structure*' section and seeking for further information on the different departments within the MFA.

The NAO recommends that the MFA website is designed to support dual languages, allowing user to access content in Maltese or English language. Furthermore, a thorough review of the website should be conducted to identify and resolve all broken and missing links, ensuring a seamless user experience.

Chapter 4 | Management Comments

This Chapter presents the comments given by the MFA senior management.

IT Management

- a. *The MFA lacks adequate resources to provide any guidance in the event of a security threat or incident. The NAO recommended that the MFA should apply for training on information security awareness offered by the Institute for the Public Services (IPS). Such training should be provided on a regular basis and should also be included as part of the induction training programmes for newly recruited employees within the MFA.*

Agreed we should provide this training. We recommend that the Coordinators within the Project and Operations unit attend to training.

- b. *While the NAO acknowledged the fact that a Business Continuity Plan (BCP) was recently drafted, the NAO recommended that once the BCP is finalised, the MFA should regularly review and test their BCP to ensure that it remains up-to-date, relevant, and effective against evolving threats and risks.*

We agree. We shall be taking the necessary steps to compile a comprehensive Business Continuity Plan.

- c. *The NAO noted that the MFA did not have any Standard Operating Procedures (SOPs) that outlined how specific related tasks or activities should be carried out. The NAO recommended that the MFA develops and formalises its own SOPs, especially in the daily operations of the core PMMS application across the Pitkalija in Ta' Qali, to ensure that employees understand and duly follow the established procedures, resulting in consistent outputs and outcomes.*

We agree. We shall be dedicating resources to start compiling the necessary SOPs. The Coordinator within the CEO Office to coordinate accordingly.

- d. *The NAO recommended that the MFA should ensure that proper cable management and housecleaning is maintained in the main server room and the locations where the two other network cabinets are installed. Additionally, the NAO recommended that the main server room and the rooms housing the network cabinets are equipped with air-conditioning and proper ventilation where applicable. Such rooms should also be kept free from clutter and should not be used for the storage of files/documents, as this could pose a fire hazard.*

This task shall be undertaken with immediate effect. The Coordinators within the Projects and Operations unit were assigned to this task.

IT Software Applications

- a. *Given the significant volume of data being handled daily, the NAO recommended that the MFA conducts periodic data cleaning exercises. This should involve standardizing the point of data entry on PMMS to minimise the risk of duplication, validating data accuracy, avoiding missing (blank) fields, identifying and removing duplicate data and monitoring for any errors. These measures will ensure that all inputted data is correct, consistent and usable.*

Done. An exercise to data standardisation was conducted by the Coordinators within the Projects and Operations unit. This shall be an ongoing process.

- b. *The NAO was pleased to note that the PMMS application has a sound audit trail functionality, that recorded every step of the buying and selling process of fruits and vegetables centrally and in real-time*

Agreed.

- c. *The NAO observed instances where one or two additional clients were waiting next to a client being served at the Cash Office although only one person is supposed to enter the Cash Office at a time. To address this issue, the NAO recommended that the MFA ensures that the Security Officer is stationed at the entrance at all times so that only one person is allowed to be served at the Cash Office and Customer Care at any given time.*

To plan for implementation.

- d. *To enhance privacy and security, the NAO recommended the replacement of the perspex window at the Cash Office with a cashier window equipped with a deal tray. Furthermore, a metal shutter or roller blind should be installed to cover the perspex when the Cash Offices closes, allowing the cashier to reconcile cash transactions in privacy. The NAO also suggested minimising the use of cash transactions and providing hawkers with alternative electronic payment facilities.*

To plan for implementation.

- e. *The NAO noted that there is no specific cut-off date for hawkers to renew their yearly licences and there is no enforcement mechanism for hawkers who repeatedly fail to renew their annual licence over several years. The NAO recommended that the MFA implements a system that notifies hawkers to renew their yearly licence within a specific timeframe. Furthermore, the system should trigger an alert if a hawker fails to renew his/her annual licence within the stipulated timeframe, preventing them from entering the Pitkalija and purchasing fruit and vegetables until their licence is renewed.*

This has already been implemented. All Hawkers who had not paid the contract have been blocked.

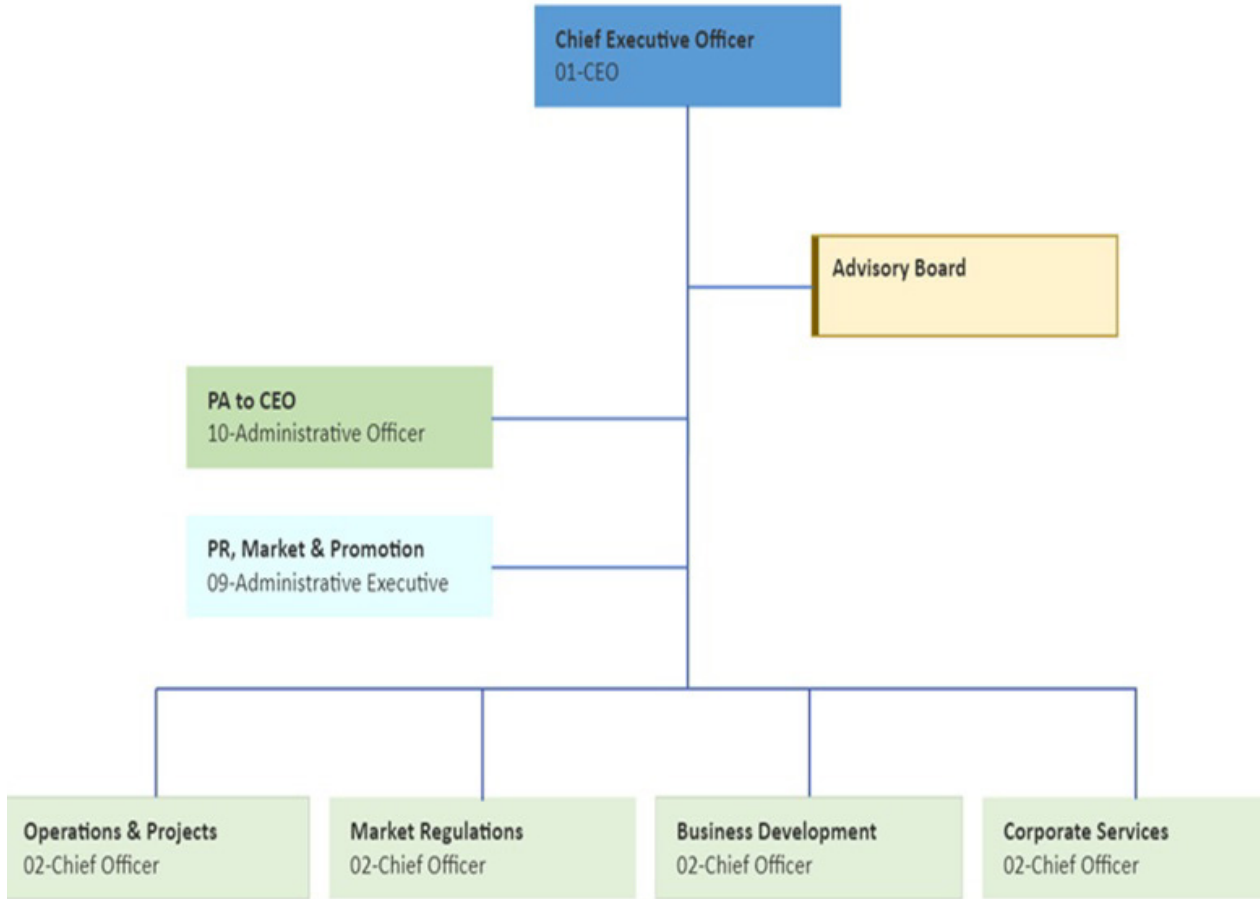
- f. *Whilst the Cash Office is equipped with Closed-Circuit Television (CCTV) cameras, to enhance security and restrict access to authorised personnel, the NAO recommended that the MFA installs an access control card system or numeric pad at the back door of the Cash Office. This would ensure that only authorised personnel could enter this Office.*

We shall implement a card system same as for the other doors.

- g. *The NAO recommended that the MFA website is designed to support dual languages, allowing user to access content in Maltese or English language. Furthermore, a thorough review of the website should be conducted to identify and resolve all broken and missing links, ensuring a seamless user experience.*

To discuss and implement. We already have the translation of the basic part of the website.

Appendix A | Organisational Chart



Executive Summary

Chapter 1

Chapter 2

Chapter 3

Chapter 4

Appendix

2022-2023 (to date) Reports issued by NAO

NAO Annual Report and Financial Statements

July 2022 National Audit Office Annual Report and Financial Statements 2021

NAO Audit Reports

June 2022 An evaluation of performance audits in the public sector: Common audit findings (2017 – 2020)

June 2022 Follow-up Audits Report by the National Audit Office Volume I 2022

July 2022 Performance Audit: Procuring the Public Transportation Service

October 2022 Performance Audit: The COVID-19 pandemic- Business continuity within the public administration

October 2022 Performance Audit: A Follow-up on the 2018 Strategic Overview of Mount Carmel Hospital

November 2022 Follow-up Audits Report by the National Audit Office Volume II 2022

November 2022 Report by the Auditor General on the workings of Local Government for the year 2021

November 2022 Performance Audit: Care for the Elderly in Gozo

December 2022 IT Audit: Online Malta Census of Population and Housing 2021

December 2022 Report by the Auditor General on the Public Accounts 2021

February 2023 IT Audit: Active Ageing and Community Care – Ministry for Active Ageing

April 2023 Performance Audit: An assessment of capital projects at the University of Malta

April 2023 Performance Audit: Ensuring fair Non-Contributory Social Benefits and safeguarding against related fraud

May 2023 An audit of matters relating to the concession awarded to Vitals Global Healthcare by Government Part 3 | Steward Health Care assumes control of the concession

May 2023 An audit of matters relating to the concession awarded to Vitals Global Healthcare by Government Part 3 | Steward Health Care assumes control of the concession [Abridged]

June 2023 Follow-up Audits Report by the National Audit Office Volume I 2023