

## ICA Country Report 2006

### MALTA

#### 1 Brief description of the Structure of the Government of Malta

Malta is a parliamentary democracy. It has been an independent nation since 1964, a constitutional republic since 1974, and a Member State of the European Union since 1 May 2004. The Head of Government, the Prime Minister, is the leader of the party that gains a plurality of seats in the legislature. The President, the Head of State, is appointed by the Prime Minister in consultation with the members of the Cabinet of Ministers.

At the present time, the main Government actors in ICT in Malta are the Ministry for Industry, Investment and IT (MIIT), which is responsible for ICT and e-Government strategy and planning across the whole of government, including the public sector, as well as for Information Society matters; Malta Information Technology & Training Services (MITTS) Ltd, a company fully owned by Government that acts as its principal IT agency; and the Office of Prime Minister, which together with MIIT and the Ministry of Finance is responsible for the final determination of ICT budget allocation to ministries and for approval of large ICT-related investments by public sector entities.

Information about the Government of Malta and specific details about the various ICT developments in Malta may be obtained from the following websites:

Government of Malta Portal: [www.gov.mt](http://www.gov.mt)  
Ministry for Industry, Investment and IT: [www.miti.gov.mt](http://www.miti.gov.mt)  
Malta IT and Training Services Ltd: [www.mitts.gov.mt](http://www.mitts.gov.mt)  
Department of Information: [www.doi.gov.mt](http://www.doi.gov.mt)

#### 2 The strategic approach adopted by the Government of Malta towards e-Government

##### *e-Government Strategy*

Previous ICA reports (2004 and 2005) have detailed the strategic direction of the e-Government programme. This strategy (encompassing the period 2004 till 2006 <http://www.miti.gov.mt/docs/ITStrategy.pdf>) has been the driving force behind the extensive development of a wide range of e-services which now provide the Maltese Citizenry with a valid and efficient alternative method of interacting with Government with over 40 diverse e-services on line (a number which is scheduled to double in the coming calendar year). As the current strategy's timeline is coming to a close, in line with the closure of the eEurope 2005 action plan, the National Strategy is due to be updated and will take into consideration the targets of EUs i2010 initiative. ([http://europa.eu.int/information\\_society/eeurope/i2010/index\\_en.htm](http://europa.eu.int/information_society/eeurope/i2010/index_en.htm)). A key initiative within this strategy has been the ongoing goal of 'bridging the digital divide'. While it is accepted that this is, and to a certain extent will always be, an ongoing objective, the continued increase in take up of the electronic services has shown that progress is being registered.

A recent Cap Gemini report for the European Union (which can be sourced from; [http://www.capgemini.com/resources/thought\\_leadership/2006\\_online\\_availability\\_of\\_public\\_services](http://www.capgemini.com/resources/thought_leadership/2006_online_availability_of_public_services)) highlights the progress being made by Malta and the other EU countries. This report has been generated for the last 6 consecutive years and, since Malta's ascension to the EU in 2004, has tracked Malta's progress in this regard. When considering sophistication of on line services, Malta was ranked 16 in 2004. The 2005 report has shown considerable improvement with a ranking of 2<sup>nd</sup> being achieved (behind Austria).

As indicated previously these results can be attributed to the development of a sound strategy and infrastructure from which to work. Now that the initial expansion of services has been undertaken Malta is planning a number of new services which will see the number of e-services increasing significantly in the next year.

In order for these services to be deployed on the Government's eGovernment Platform improvements will be required in order to cope with the additional capacity and performance requirements. An outline of this work is included within the section on Operational Issues.

### ***The Role of CIO***

The CIO of MITTS Ltd (ICT Agency for Government) is undertaking the role of CIO for Government. The CIOs for Government Departments and Quangos form the CIO Council, which meets once a month. The creation of CIOs within the Government Entities is part of a process of evolution which has seen the creation of Information Management Officers within each department and their development into prospective CIOs. As this is still a relatively new structure its effectiveness is still developing, however it is envisaged that this will be an appropriate structure for the further development of ICT Policy and Standards and well as an effective sounding board for the many analogous issues faced by the Entities CIO's.

The development of this role within Government is increasing in criticality as the Government's ICT Consolidation exercise continues to gather pace. In order to reach the levels of benefits realisation necessary for the exercise to have been a success it is a priority that the entities harmonise their approach to ICT and that centralised policies and standards are developed and adopted in as effective a manner as possible. This will require centralised bodies such as the CIO Council to develop the appropriate work ethic and be able to reach compromise on the usual issues entities face when developing a consolidated approach.

### ***Legal framework***

NB: This text has been left in this report from the previous year as, while retaining its relevancy no major developments have been registered in the last month.

The main legal texts impacting on the development of e-government are those on Data Protection and Electronic Commerce.

The **Data Protection Act** was enacted on 14 December 2001 and came into force in July 2003. The Office of the Prime Minister (OPM) is responsible to ensure that Data Protection compliance is achieved in all Government departments. A collaboration agreement was signed between MITTS and OPM. As a result, a project team was established between OPM and MITTS to co-ordinate, advise and assist as necessary in the implementation of the data protection requirements in the Public Service, so as to bring Government departments compliant with the Data Protection Act.

The **Electronic Commerce Act** was adopted on 16 January 2001.

There is no specific legislation on "Freedom of Information" or "Re-use of public sector information".

The full text (in English) of all Maltese laws is found on the website: [www.justice.gov.mt](http://www.justice.gov.mt).

## **3 Organisational Issues**

The main driving organisational issue is the ongoing adoption of the changes implemented in June 2005 (covered in last year's report and replicated in Appendix A). This change has meant MITTS Ltd, as well as being the main service provider for Government also has within its terms of reference, a Governance and enforcement role within Government's ICT organisation. These aspects have now, organisationally, been absorbed with the various roles now beginning to function as necessary.

The areas adopted which have required specific focus are Quality Assurance, Compliance and Architecture. As these areas have now had their remit increased to include the whole of Government (instead of focusing on MITTS Ltd as a company) a significant change in focus has been required.

The major change which this realignment enforces on these areas is the adjusting of their internal mechanisms to ensure that 3<sup>rd</sup> party suppliers to Government are included within both, the high level strategic work as well as the procedures for development and deployment. Such work is currently underway with the appropriate working groups being formed and their terms of reference being set. The importance of this work is amplified by the Government's ongoing objective to continue increasing the involvement of private sector entities within Government ICT.

The Architecture Unit has been given the remit to ensure a Government ICT infrastructure is developed which allows an effective implementation of Government's key objectives. This unit houses skill sets from the major architectural domains (technology, application, database and data etc) as well as a Policies and Standards function. This section is undertaking a programme of works to ensure architecture is implemented with long term consistency in mind, while being augmented by the implementation of the appropriate policy and standards framework.

The Quality Assurance function ensures process is being followed correctly, while compliance is tasked with policy enforcement. Currently procedures are being implemented which, defined as the Quality Assurance Framework, highlight checkpoints throughout deployment or development projects \ initiatives. These checkpoints will be used to ensure that appropriate architectural standards and development techniques are being used.

The Compliance section works closely with the Policy and Standards unit. As deployment of policy within Government is still an ongoing concern, resources are currently split between a process of deployment and compliance activities.

It is envisaged that these areas will continue to strengthen and in the longer term will provide Government with the appropriate ICT infrastructure and working mechanisms to ensure objectives such as e-strategy and implementation will have the appropriate foundations and working practices to succeed.

## **4 Operational Issues**

### ***Government Consolidation Exercise***

The most urgent objective for ICT in Government operations was determined to be the completion of the consolidation programme not only across Ministries but also in all public sector entities. This is considered critical on several counts: technological, operational and not least financial. MITTS Ltd has been designated as the entity responsible for the consolidation project and has been empowered to enforce its provisions accordingly.

MITTS Ltd was initially setup to utilise the relatively new mini server technology, as the older mainframe technology was seen as more expensive to run and not appropriate for the local environment. The outcome of this was a gradual decentralised environment that eventually expanded into large number of servers hosting applications for specific client needs.

In the last few years a new technological cycle has begun, with the availability of large storage space technologies (such as SAN and NAS) being the technological driver. These can be efficiently split between users and are flexible enough to meet the varying business needs which a more demanding and ICT literate client requests.

The approach being proposed is based on a consolidation and centralisation of the host's servers and Data Centres used to provide ICT systems and solutions. The benefits are numerous and diverse but the reduction of risk, reduced costs and more efficient use of ICT resources are the major business drivers.

The deployment of such strategies have become possible discussion points since the initiation of the MAGNET II project (reference last year's report for details of this project), which will supply a centralised solution with the required bandwidth for it to function. The model proposed can be summarised as:

- Rationalised – Literature establishes three levels of consolidation: Rationalised, Physical and Logical. This strategy proposes that a rationalised approach should be adopted which involves the reduction in the number of servers used as well as a move to a centralised management system.
- Phased – A project of this size and nature cannot be carried out in a single phase. The varied nature of the clients needs (both technical and business) leads to a phased, but multi prong approach as being the optimal method of implementation.
- Aggressive – Cost increase and efficiency can be effected as the number of Data Centres migrated into a consolidated environment increases. Therefore an aggressive approach to consolidation is suggested which focuses on a model utilising two Data Centres. This approach should maximise the possible benefits from a consolidated environment.
- Backwards – Consolidation can either take place taking into account only new implementations of IT solutions (forwards) or can include current and legacy applications (backwards). The large number of applications currently in use within the scope of this project leads one to conclude that sufficient benefits will only be realised via a backwards approach to consolidation.
- Active-Active Link – The aggressive approach (use of two Data Centres only) allows the creation of a high bandwidth link between the two centres and thereby the provision of a real time disaster recovery method. This should lead to very high availability percentages and highly reduced risk of downtime and denial of service as well as of data loss.

The strategy identified focuses on the core reasons for consolidating an environment and suggests a highly compact ICT environment maximising the benefits, which can be realised across Government. The proposals submitted used to adopt this approach needs to be considered carefully, in order to ensure that current resources are, where appropriate, integrated within the proposed model in the most efficient manner.

### ***Continued Evolvement of ICT Environment***

As described in detail in last year's report a number of large scale (for Malta) projects are either in the process of deployment or initiation. This means this years report does not have the same volume of information to report and can be more accurately described as a status report on the various ongoing operational concerns. The consolidation project detailed above is an example of the type of projects which the Government of Malta is now being able to undertaken since the deployment of the new network. Another example of how such investment is now allowing infrastructural improvement is the number of significant improvements to service delivery methods which have been carried out.

From first line support (Service Call Centre and Desktop Support) through to preventative diagnostics, improvements have been registered in the statistics begin gathered (increase in Call Centre resolution of calls) as well as reductions in the resource requirements of the various operational units. While the underlying bed rock of these improvements is the newly constructed network infrastructure, the deployment of various management tools such as SMS for desktops and Microsoft Operations Manager \ Network Node Manager for operational management have also begun to return benefits. These tools have been enablers for cultural and operational changes to the methods being used. The introduction of centralised backups, secondary redundant links as well as centralised antivirus consoles, has allowed MITTS Ltd to reduce overheads while improving service provision with regard to both timeliness and quality of service delivery.

The management and maintenance of a large PC desktop population (circa 12,000) has been causing an increasing number of issues. This is especially the case when trying to implement improvements, such as implementation of SMS and other centralised initiatives, on a PC base which has evolved over a number of years and is therefore extremely diverse in nature. In order to aid this process of improvement implementation new models of procurement and release are being examined including the possibility of introducing a leasing model to help ensure the requisite quality and specifications are deployed as well as to improve return on investment.

## **Enhancement of the eGovernment Platform**

As identified within the eGovernment Strategy section of this report, a programme of works is underway in order to continue to develop eGovernment services. This programme of works is targeted at doubling the number of services available over the coming calendar year. Malta has benefited greatly from the development and deployment of a centralised hosting platform which caters for specified technology stacks in order to aid the deployment of the varied services within the same platform. This approach has allowed the development of 40 electronic services which are coexisting and functioning well however the investment and expansion will be necessary in order to maintain the current level of service being provided.

Initial planning has shown the need for capacity increases and changes to the architecture in use and technology stacks adopted. The drive to consolidate Government ICT has also added additional impetus to this requirement, with the centralisation of Government Quango's websites a priority. This introduces an element of difficulty as the websites have not been developed with centralisation in mind and will not have adhered to a standardised policy framework. The definition of a centralised environment is underway which will be able to retain an element of flexibility but still be able to retain a high overall promise of availability. As well as this infrastructure based work, definition of an appropriate Software Architecture Standard is underway which will ensure that future projects are worked within the infrastructure's capacity to host. It is anticipated that this expanded infrastructure will provide the Government of Malta with the hosting infrastructure to further develop the services being provided to the populace without degradation of the current levels of service being provided.

## **Investments in Malta**

The last year has seen the development of a number of ICT investment based initiatives on the island. A recent agreement with Tecom Investments has laid the foundations for the establishment of a Smart City within Malta. Quoting from a MIIT communication;

*"The new 'SmartCity@Malta' will include a new full-fledged ICT and Media Smart City on the models developed by the same organisation in Dubai. This project will also be accompanied by new state-of-the-art use of the environment of the site with the development of a hotel and other activities to help attract knowledge-based operations to the site. This is expected to create a cluster environment to service tenants in the site in a cost-effective and efficient manner."*

The model discussed creates the environment and tenant space for companies to create a base for some or all of their ICT operations. It is envisaged that the initiative will create around 5,600 jobs, the majority of which will be in Malta's knowledge industry.

In addition Malta has become one of the top 6 countries for the registration and hosting of iGaming companies. Over 70 companies have applied for registration (including a number of the top companies in this field) with the technical infrastructure and availability of highly skilled resources being a couple of the reasons for the increasing interest.

A more recent development has been the development of large call centres within Malta. The major development in this area has been the confirmation that HSBC Bank will be creating a Call Centre in Malta for their UK banking network.

## **5 Topics of prime importance to Malta's IT strategy at this time**

### **Adoption of Open Standards**

The discussion revolving round the introduction of Open Standards usually seems to be triggered when an issue presents itself relating to vendor lock in, usually concerning contractual negotiations and renewals. The adoption of Open Standards is seen as a possible solution to such issues making sure that transfer from one vendor to the next is reduced in complexity. As part of the European Union, Malta is bound to ensure that options to use open source products are part of any relevant

process of procurement and, as such, is introducing appropriate weightings into the adjudication process. However this is an ongoing issue which seems to require constant 'reselling' with advocates for both sides constantly debating the pros and cons of such an approach.

The Government of Malta has an Information Technology Strategic Plan in place which specifies the roadmap for various ICT domains with one of these being the adoption of Open Standards. This, at least, indicates that, at a strategic level, the direction has been adopted. However, it is at an operational and implementation level that further development is necessary with the various parties still 'negotiating' the details of the approach. From an architectural perspective the direction is clear. The adoption of open standards is a method of allowing a heterogeneous environment to develop in a manner which will allow for longer term stability. It will reduce issues when inevitable ICT changes are necessary and will help to keep service disruption to a minimum.

From a project perspective there are issues with the use of propriety functions and methods which, while can provide end users with the additional features, is a feature of vendor lock in. However as personnel and companies are continually pushed to do much more, quicker and cheaper than the last time it can seem a contradictory statement to restrict the use of specific features which can add significant benefits to the end users with, sometimes, minimal effort. It is of course the remit of the vendor to supply such features in order to make their product more attractive and to distance themselves from competition and, in this manner, lock the client in to using that specific product.

These issues are currently being tackled with agreements being put in place to ensure requests for tender and procurement processes take into account the adoption of open standards.

### ***Balancing Long Term Stability with Product Delivery***

In a Political environment delivery is of primary importance and, while quality is given due process, the constant striving to deliver more can put a strain on even the best drilled process. This can be an area where critical decisions are made, especially if delivery (even short term) is given priority above a process of longer term stability. A consolidated environment is an unforgiving setup which does not react well to deployment without maintaining a consistency to delivery methods and applicability to policy. When systems are deployed together the complexity of such environments increases impacting the ability of even the best trained individuals to diagnose and resolve issues.

However, it is understood that ICT environments are but the tool sets of a business delivery and service programme, so exceptions are occasionally necessary. A planning process is underway to examine possible methods of mitigating such issues. An initial step in this process was the recent release of an Exemption and Waivers Policy. The release of the said policy was as much to register acceptance that exceptions are possible and need to be handled formally rather than leaving them dependant on the case in hand. Each exemption would also have a resolution date attached to it in order to aid the process of future compliance.

However a centralised environment will still be impacted by the release of exemptions. In order to aid ensure service levels are maintained for those clients who are in compliance with the policy framework, the definition of a Quarantine environment is being undertaken which will retain reduced service levels (including a lack of redundancy) and therefore an inferior service. It is proposed that services which do not comply with a policy are housed in this environment until the necessary amendments are carried out as per issued exemption. It is anticipated that this method will help mitigate immediate needs and allow longer term goals to be achieved.

## **Appendix A – Changes to Organisational ICT Government in June 2005.**

Note: replicated from ICA Report 2005

### ***Changes in ICT governance announced in June 2005***

On 22 June 2005, the Government of Malta announced major changes in ICT policy following an internal review of its ICT operations.

The Ministry for IT (MITI) was designated as the official Government entity responsible for the setting of strategy, direction, management and monitoring of all ICT in Government policy operations, whether in the Public Service or the wider public sector.

The remit and operations of MITI and MITTS Ltd. will be solely and exclusively Government which means the Public Service, Authorities, Corporations, Agencies and commercial public sector entities in which the Government has a majority shareholding and which are not listed on the stock exchange.

MITI, together with the Ministry of Finance and the Office of the Prime Minister, will be responsible for the final determination of the ICT budgets to be allocated to line Ministries and to approve or otherwise investments in ICTs by public sector entities with a value greater than Lm 20,000 (circa EUR 46,600).

A Core ICT Advisory Committee, chaired by MITI, will be set up to ensure that the key stakeholders in the ICT in Government process are continuously involved in the decision-making process. The Committee will include, amongst others, senior representatives of the Office of the Prime Minister, the Ministry of Finance and MITTS Ltd.

MITI will assist, directly or through MITTS Ltd, line Ministries and entities in the determination of their core systems requirements and through inter-Ministerial coordination, ensure that the investment made by each entity is maximised and utilised to the largest extent possible by other entities.

The role of the Central Information Management Unit will be integrated within MITTS Ltd and line Ministry functions.

MITI will retain its current role of e-Government leader from a strategic, championing and programme leadership aspects, with MITTS Ltd fully providing the support operations involved in the development and implementation of e-Government services.

MITTS Ltd will provide the following services to all Government and public sector entities:

- All core services including, *inter alia*, infrastructure, architecture, consolidated environments, storage, email, Internet, implementation and management of enterprise software and platforms, implementation and management of Relational Database Management Systems, disaster recovery, e-Government framework, portal services, authentication services, electronic payment gateway (EPG) and m-Government gateway;
- Integration of off-the-shelf solutions and technologies and provision of adequate resources such that MITTS Ltd could act as a trouble-shooter for the off-the-shelf solutions, hence reducing critical dependence and cost of support;
- Negotiation, contracting and management of all enterprise-wide agreements (including licensing);
- RFP development, adjudication and contract management for major systems;
- Information security, risk and crisis management and rapid disaster response capacity;
- Standard-setting, issuing of policies and directives, monitoring and compliance;
- Quality control of systems developed by third parties;
- Project management services;
- Management of the central service call centre;
- In conjunction with the Management Efficiency Unit, the provision of ICT-related BPR/change-management consultancy services to Government entities undergoing change processes; and
- Maintenance of existing legacy/bespoke applications/systems.

The most urgent objective for ICT in Government operations was determined to be the completion of the consolidation programme not only across Ministries but also in all public sector entities. This is considered critical on several counts: technological, operational and not least financial. MITTS Ltd has been designated as the entity responsible for the consolidation project and has been empowered to enforce its provisions accordingly.

The top priority deliverable in this regard was designated as the roll-out of VoIP, since this will result in significant tangible savings across all Government.

The current decentralised ICT funding system shall be revisited with the objectives of reducing total cost of ownership and ensure the maximum return of investment made by Government through its ICT expenditure. In this context, it is being proposed to replace the current model with:

- A core services allocation which will cover the provision of all the core services to Government (including public sector entities).
- A contained (and largely reduced) budget to line Ministries to cover their Ministry specific ICT requirements, minor purchases, desktop support, maintenance, etc.
- An ICT in Government capital investments budget to MIIT which will be utilised to finance e-Government and any major investments to be made along the lines of the revised investment methodology. Capital investment budgets for the public sector entities will be planned at entity-level jointly with MIIT.

The ownership of the ICT projects will remain with the line Ministries/entities.

The Office of the Principal Permanent Secretary will be issuing a revised Ministry information management framework which will determine the model with which Ministries will be running their internal ICT operations within this new strategic context.

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