

**INFORMATION & COMMUNICATION**

**TECHNOLOGY**

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**A VISION STATEMENT**  
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## Vision

*“Malta, as an intelligent island that facilitates a knowledge-based economy by having a networked information society for the well being of the citizen”*

## Rationale

Information and Communication Technology (ICT) is one of the fast growing dynamic industries that is creating knowledge-driven jobs, improving the quality life of the citizens and contributing to the economic growth of most countries. It is becoming more evident that in the short to medium term, Malta will have great difficulties to be able to compete with paying low salaries for countries conventional work and the only option would be to gain competitive advantage with knowledge, creativity and high value jobs. Malta has to brand itself as an ‘Intelligent Island’ with the ideal innovative environment for knowledge-intensive services and evolve into a nerve centre for other countries.

It is essential to recognise that communication technologies and information systems are rapidly changing, with the result that what is state-of-the-art today may be obsolete tomorrow. Therefore, it is important that investment in the ICT is maintained at an appropriate level and on a continuous basis to ensure that it remains at an advanced technological level.

Investment has to be planned properly as Malta cannot afford to continue spending millions in ICT and in strategic alliances without having the means of quantifying and exploiting this investment. Investment and alliances have to go beyond the statement that they will result in the strengthening of the ICT position of Malta, but it is extremely important that it also outlines what the tangible strategic advantages are, and how it plans to achieve them.

National ICT strategies and policies have rarely been a political issue in Malta, and there has been a common and mutual understating that advances in ICT are mandatory to achieve competitive advantage and to improve the citizens` quality of life. However, one has to look beyond the local boundaries and make every effort to improve Malta’s position within the European ICT long term indicators as published by the European Statistical Office (Eurostat). It is encouraging to see Malta progressing from the 16th up to the 2nd place with respect to ‘e-government on-line availability of basic Public Services’, but now Malta has to take remedial actions to address the other indicators which are revealing that:

- Malta is currently placing in the last positions amongst the EU countries in ‘Expenditure on R&D as a percentage of GDP’ and in ‘Preparing Tertiary Graduates in Science and Technology’.
- Malta is ranking below average amongst the EU countries on ‘Employment in Knowledge-Intensive Service Sectors’ and in ‘Percentage of households who have Internet access’

- Malta is within the average position amongst EU countries in 'Broadband Penetration Rate' within the Maltese households.

Expenditure on research and development (R&D) should be the key indicator of the effort by government and the private sector to obtain competitive advantages in the ICT industry. Government has to ensure that R&D expenditure will be seen as an investment in knowledge and hence new policies have to be introduced to boost and upgrade Malta from its current position within the European Information Technology performance indicators.

Financial practices have to start considering investment in knowledge acquisition, as increasing the asset value of the organisation; and taxation policies also need to change so as to provide incentives encouraging business people to invest in intellectual acquisition which will in turn contribute to a knowledge economy. The recognition of the value of knowledge assets, will lead to higher valuations for those organisations that invest in continuous training of their staff.

## ICT Governance

### The Ministry of Information and Communication Technology

One should consider whether the roles and responsibilities of the Ministry of IT should be revisited and streamlined in a separate ICT portfolio which should include the communications sector, as IT and communications have internationally become an integral part of Information and Communication Technology. This will bring more effective implementation of policies with respect to related communications authorities and will also be in congruence with the exponential growth of the contribution by the communications sector to the ICT industry.

The Ministry of ICT has to be the governmental entity responsible for articulating policy in both areas of information technology and communications. It should be responsible for the overall governance of ICT for the public service and the public sector within an operational framework for political direction, strategy setting and policy making. It will be the driving force behind all ICT strategic initiatives making sure that initiatives are cost effective, business driven and most of all that initiatives are in the interest of the whole government at large.

The Ministry's mandate should include the development, incubation, support of ICT initiatives at a national level, stimulating local and foreign technology investments as well as promotion to awareness and adoption of ICT by all segments of the population, in an all-inclusive approach.

In transforming the information society into a knowledge economy, the Ministry of ICT has to address the challenge of effectively managing technological change across government. This is not primarily a technology issue, nor an issue of interest only to technical people, but it is a challenge to diffuse business innovation within the current culture.

### Boards, Committees and Councils

The role and responsibility of the Government's current 'Core ICT Advisory Committee' (CITAC) will be revised and streamlined to drive the transformation from that of an information society into an effective knowledge economy by reaping the full business and financial benefits of ICT within Government. It will incorporate the active participation of Government's decision makers and key personnel well versed with technology trends that will strive to give the appropriate direction in the interest of the whole Government by investing in its people and the local ICT industry.

The 'National Information Society Advisory Council' (NISCO) should be retained, but its scope and structure will be developed further into a consultative body where its stakeholders will be empowered to collectively contribute to a national ICT strategy and in turn to the knowledge economy across the public and the private sector.

The terms of reference for the 'Malta Council for Science and Technology' (MCST) will be revised to let it play a leading role within the Ministry of ICT with the right financial framework and the right conditions of work. It will be the driver to actively strive to tap in EU funding programmes and assistance from other countries with special focus to Research and Development. It will also serve as the liaison body between ICT related academic centres and Small Medium Enterprises (SMEs) for innovative initiatives.

## Malta Information Technology and Training Services (MITTS)

MITTS will be Government's ICT arm and will retain the executive responsibility for the management, control and upgrading of the corporate government's ICT initiatives. It will be the catalyst to shift from stand-alone IT project management to business program management and to shift from distinct IT projects to disciplined portfolio management.

MITTS will be the primary ICT provider for Government's systems on strategic business areas that in their nature are politically sensitive, high revenue generating and of the highest security level to Government. These strategic business areas include Taxation systems, Social Services system and other high revenue generating applications which requires continuous upgrades according to government policies.

In collaboration with the Ministry of ICT, MITTS will also embark on a nation wide programme to outsource the complete replacement of non-strategic legacy applications to the private local industry. This will enable the ICT industry to participate in upgrading government's applications with state-of-the-art technology as opposed to the current policy of divesting the maintenance and support of legacy applications.

Government will also retain, revisit and enhance the core ICT services agreement with MITTS (such as internet provision, security services, data management, collaborative frameworks, application hosting, etc) so that Government entities will benefit from economies of scales, promote a balanced consolidated environment, facilitate information sharing and integrate systems across all Government.

A labour government will ensure that MITTS will be more customer friendly and competitive in the provision of services not only at an institutional and client level but also regarding local councils.

## Ministerial ICT Leaders

Good governance is characterised by efficiency, transparency and accountability across the public service and the public sector through the co-ordination of ICT leaders within each respective ministry. Government will revitalize and empower the Information Management Unit within each ministry by up-skilling government employees, and which will be headed by a Chief Information Officer.

The main responsibilities of these decentralised units will be to provide the co-ordination, planning and monitoring of the ICT initiatives within the respective ministry according to Government's corporate ICT Vision.

## Strategic Principles

This vision document aims to set a direction for Government departments, agencies and public entities by establishing a number of ICT strategic principles that recognise the strong capabilities of the Maltese citizens. Although technology plays a very important role, this vision is business driven to achieve excellence in the public service and public sector and to stimulate the right environment for the private industry.

The vision is based on eight major strategic principles and several macro initiatives which in due time will be further defined in detail within a subsequent ICT strategic Road Map following a consultative programme with all stakeholders. The strategic principles aim to:

1. Transform the Information Society into a Knowledge Economy
2. Empower the ICT Intellectual Capital
3. Promote e-Quality, e-Inclusion and e-Democracy
4. Enhance the Citizens' Quality of Life
5. Foster Entrepreneurship for High Value Jobs
6. Promote Seamless Government through "Join Up" Public Services
7. Promote a Global Hub Concept on a Resilient ICT Infrastructure
8. Secure and Protect the National Cyberspace

## Strategic Principle 1

### Transform the Information Society into a Knowledge Economy

The quest for economic wealth will be closely linked to the ability of the information society to generate knowledge that contributes to the Maltese economy in terms of better quality decision making, increased competitiveness, enhanced quality of life and the creation of high value jobs.

The realisation of the ICT vision is dependent upon having a strategy that defines Malta's ICT long term direction and scope by matching Malta's resources to its changing environment, in particular its markets, its citizens and society in general, so as to meet the objectives of all its stakeholders. Government has to invest wisely and work in partnership with the ICT industry to deliver innovative business solutions and better services to the local and global communities.

### Initiatives

**Brand Malta into an Intelligent Island:** Government will transform Malta into an intelligent island, where ICT will continue to penetrate every aspect of society. Malta must be developed into a brand that will differentiate it from its competitors by ensuring global awareness of the ICT potential capabilities of its citizens. The branding will include the entrenched culture of efficiency and high quality, backed by a down-to-earth administration process.

**Establish National ICT Assets:** Government will continue with the current direction of repositioning specialised entities (such as Malta Information Technology and Training Services - MITTS) as being National ICT assets with the objective of providing consultancy and assistance to Government on issues relating to ICT strategy and research & development to leverage the private industry on international projects.

**Leverage Technological Initiatives:** Government will continue to provide the necessary leverage to help the eventual set-up of the smartcity@malta concept. It will proactively nourish the skills of its human resources with diligence and with the appropriate academic backing to increase the current momentum of this project. Government will actively pursue international entrepreneurs to invest and play an important role within this project in terms of development, operations and access to international ICT markets.

**Extend the Collaborative Frameworks:** Malta needs a proper collaborative ICT frameworks within Government structures that are adaptable, comprehensive, transparent and inclusive for the creation of value work based on e-skills. Government will revisit the current collaborative environments within the public service, and enhance them to provide a seamless environment for the day-to-day communications and messaging between the public services, the public sector, and where necessary it will extend to suppliers and providers as part of the value supply chain.

**Exploit Information Resource Management:** Government will recognise information resource management as a corporate asset that must be proactively managed and extensively utilised in the tactical and strategic decision making process. It will conduct an appraisal of the information available and assess how this may be utilised by the various management sectors within the parameters of the Data Protection Act. A comprehensive training programme will be defined and implemented to educate various levels of management in the analytical appraisal of information through decision and executive support systems

**Create Innovative and Attractive Environments:** Malta has to be innovative and creative enough to attract Maltese expatriates who have expressed a desire to return back to the country, but are unable to do so due to a perceived lack of opportunities in the local ICT industry locally.

**Promote 'ICT Born-Global' Business:** Business will be encouraged by Government to focus on developing more 'ICT Born-Global' products and find methods of getting these products to the global market. This will enable the ICT business industry to attract local and foreign investments which in turn will stimulate domestic demand, generate employment, improve business processes and widen access to the global markets.

## Strategic Principle 2

### Empower the ICT Intellectual Capital

Learning, creativity and innovation are qualities of an intelligent society, in which the development of ICT skills is the most critical pillar for the current and future growth of the ICT industry. Therefore, the enhancement of intellectual capital especially in the youths, must be viewed as a key driving influence in the expansion of the knowledge economy

Having a highly trained and educated workforce within the public and private sectors will empower the information society to transform itself into a sustainable and successful economic thrust. Government will invest adequate resources to facilitate the transformation of tertiary institutions, into real ICT Centres of Excellence. These will be mission driven and be responsive to the changing skill needs and demand levels of the ICT industry. A basic premise is that citizens will be required to be re-tooled with new skills many times over during their working lives.

### Initiatives

**Leverage Intellectual Capital:** Government will invite the private sector to actively participate in Government training projects so that ICT would reach out to every constituency in the country. Private and independent training providers in Malta will have a bigger role and foreign students will also be invited to come to Malta and learn ICT similar to learning English as a foreign Language.

**Impetus to ICT Centre of Excellence:** Government will increase the current impetus to transform the University of Malta, MCAST and other ICT entities into real and effective ICT Centres of Excellence providing a commercially connected environment in which post-tertiary students could undertake further studies in Research and Development. ICT Education at MCAST and other vocational institutions will be strengthened and their work should be appraised more by the University. Furthermore, the issue whether to have a Faculty of ICT at the University will be addressed immediately following a broad consultation with all stakeholders involved.

**Develop an ICT Employment Strategy:** In collaboration with the Employment and Training Corporation (ETC), Government will proactively conduct continuous research on skills requirements by the ICT industry and following a gap analysis, it will develop an ICT employment and training strategy that will identify trends in labour markets, skilling requirements and preferred working ICT methodologies. It will streamline the youth ICT curriculum across all levels of education to ensure that in the coming future Malta will have sufficient human resources with the proper ICT competencies to support an expanding ICT industry. It will also coordinate the appropriate training facilities to meet the skill demands particularly in business development, consultancy, technical specialisations, software engineering and project management.

**Promote Female Participation:** Government will strive to increase the participation rate of women with home duties, in the ICT industry by making ICT more accessible remotely and affordable from home. These initiatives will aim to reduce the skills shortages problem and will also help to address the economic situations of working families.

**Harness the Potential of Senior Citizens:** Government will embark on initiatives to enhance ICT knowledge within the senior citizen category, with the intention to positively exploit their potential and experience after retirement age and invite them to contribute to the knowledge economy.

**Access to Attachment and Training Programmes:** Government will provide the necessary resources to tap in a number of Commonwealth programmes that will provide a wide spectrum of learning facilities to Maltese citizens in international specialised education centres to foster innovation and creation. It will also take a proactive approach to provide more opportunities for the Maltese to experience international cultures and technology trends through attachment programmes within the EU, US and the Asian countries like Singapore in view of the common characteristics of the island.

### Strategic Principle 3

#### Promote e-Quality, e-Inclusion and e-Democracy

An e-democratic society will not only target to include citizens with socio-economic differences, but will also ensure to adopt an inclusive digital information society that will provide an opportunity to every citizen to contribute to the generation of a knowledge economy.

All Maltese citizens should have the opportunity to develop the skills necessary to participate in transformation of the information society into a knowledge economy and take advantage of the range of technologies and services available. Government will ensure that amongst a number of initiatives, it will continue the commitment to invest in ICT to provide the opportunity to include every citizen and to deliver better services to every segment of the society.

#### Initiatives

**Provide 'Go Digital' Outreach Campaigns:** To sustain the momentum of the ICT awareness within the Maltese islands, Government will create and leverage outreach initiatives through the private sector and the local councils to disseminate technical education across the widest segment possible to eliminate the info-poverty across certain segments of the society. Throughout these outreach initiatives, Government will take the necessary measures to reduce internet charges and make computer equipment more affordable.

**e-Quality for e-Inclusion:** Government will implement suitable policies that will provide an opportunity for every citizen, particularly women with home duties, the elderly, disadvantaged children, single parents, the unemployed, and persons with special needs, to contribute to a knowledge driven economy and share the generated ICT benefits.

**e-Democracy for e-Governance:** Government will implement suitable ICT policies to keep its citizens and business community informed, and give them the opportunity to directly contribute in defining Government policies. Through the use of ICT the citizen will have invaluable sources of information and the potential to provide input to the policy decision making process of Government.

**Accessibility to every Citizen:** In consultation with the Foundation of Information Technology Accessibility (FITA) and other appropriate organisations, Government will continue to strive to address the accessibility issues at every ICT implementation to facilitate the ease of use for persons with special needs so that no citizen is left behind.

**Maltese Language on the World Wide Web:** Government will continue to contribute and promote the diffusion of the Maltese language within applications, operating systems and office automation software where it is seen as a value added opportunity. Further more, in consultation with the 'National Commission for the Maltese Language' and other related organisations, Government will also embark and fund an on-line internet based version hence not tied to proprietary software, for a comprehensive Maltese Dictionary and a Maltese Thesaurus.

**Up-skilling Government Workers:** Government will ensure that all knowledge government workers are given adequate information processing tools, are properly trained and consequently made fully aware of the information management resources at their disposal. This process will have the objective of ensuring that government policies are defined and based on sound and high quality decisions by increasing the professional level of the Public Service management team.

**Explore Multi Channel Delivery:** Government will explore the possibility of offering ICT services through the utilisation of alternative service delivery channels apart from the conventional computer. With the collaboration of the local TV stations and network providers, Government will aim to provide alternative channels such as interactive TV to reach the widest possible segment of society in the provision of e-Services.

## Strategic Principle 4

### Enhance the Citizens` Quality of Life

The cumulative effect of enhancing, re-engineering and automating of current services through the use of ICT, is that citizens will have more time and energy to engage in leisure activities that refresh their mental faculties or renew their social ties.

Job creation is a fundamental objective of a knowledge based economy. However, this has to be supported by providing better quality jobs; improving the conditions of existing jobs; generating more income; and allowing greater flexibility in the workplace. A Labour Government will make every effort to facilitate the creation of better quality ICT jobs where individuals will have the opportunity to utilise higher skills, increase their responsibility, work more productively, which will in turn result in a better work-private life balance.

### Initiatives

**Create Better Quality Jobs:** Within the knowledge economy, Government will not only create more jobs, but will also produce better jobs for the citizens. It will create better conditions for change in existing jobs, generate new working methods, new ways of organizing work and allows greater flexibility in the workplace. Through quality jobs people will use higher skills, increase their responsibility, work more productively, better manage information flow and better combine their work and their private life.

**Impetus to Cultural Heritage:** The importance of cultural heritage in education, museums, libraries, archives and similar cultural aspects will be emphasized and made more available by ICT facilities. Government will provide new opportunities for Malta's cultural heritage both in terms of improving access and of supporting preservation of content.

**Generate Value Time:** The vast majority of government services from departments are being made available through computer and communication networks. Tax submissions, permit and license applications, bill payments and similar services, will be revisited and if possible improved to be processed electronically in a 'life-episode' approach. By using technology to reduce or simplify time-consuming routine and every day work, citizens will have more discretionary and value time.

**Promote a Teleworking Culture:** Government will promote the creation of a community telecomputing network to support government itself, the private sector and the social community. The availability of these networks is to prod citizens directly from their computer at home, to participate more actively in collective activities that increase the social cohesiveness of the community. This will be achieved by providing specific incentives to encourage a teleworking culture, particularly increasing the share of e-workers amongst women with home duties; and the elderly who may be required to be in close contact with their families, but who can give a valid contribution to the economy.

**Nourish eWork in the business community:** In a knowledge based economy, Government has to provide the opportunity for normal business activity to be carried out from a location remote from the traditional office by using modern computing and communication technology.

**Cultivate e-Tourism Services:** The global connectivity will enable the tourism industry of the future to take advantage of the ICT opportunities, where e-Tourism is expected to revolutionise the value chain of the tourism economy. Tourists will be able to use multilingual and multimedia systems to preview cultural events before choosing their destinations.

**Create a Gozo ICT Unit:** Through the use of a proper technological infrastructure between Malta and Gozo, Government will provide the facility for citizens living in Gozo to be able to work from a remote ICT Unit in Gozo as a remote branch of MITTS. The set-up of an ICT Unit will not only support the ICT needs of the island, but will also supplement the ICT demand of Malta and provide more opportunities for Gozitans to work on high value jobs without the need to spend time and money on traveling between the two islands.

## Strategic Principle 5

### Foster Entrepreneurship for High Value Jobs

A successful ICT industry requires strong strategic relationships with major entrepreneurs through direct investment or, if feasible, through partnerships. However, strategic alliances must be transparent, accountable, cost effective, and provide sustainable long term economic benefits through High Value Jobs.

Government will facilitate the formation of strategic alliances within the EU legal framework based upon the concept of steering rather than rowing. This will be achieved through suitable incentives schemes and the establishment of proper mechanisms to assist genuine entrepreneurs and also to utilise EU funding initiatives related to research and development.

### Initiatives

**Support Small and Medium Enterprises:** A strategy will be introduced to increase the volume of ICT start-ups and ensure an acceptable survival rate of ventures undertaken. Applying the EU “think small first” approach, special attention will be given to the potential of Small and Medium Enterprises (SMEs) due to their diverse nature, dynamic structures, flexible processes and their capacity to innovate.

**Implement Research and Development Initiatives:** Expenditure on research and development (R&D) should be the key indicator of government and the private sector effort to obtain competitive advantages in the ICT industry. Government will ensure that R&D expenditure will be seen as an investment in knowledge and hence new policies will be introduced to boost and upgrade Malta from placing amongst countries with the lowest R&D expenditure. Government will take active interest in the development and innovation of the ICT industry and will promote its potential benefit through corporate tax exemptions, soft loans in partnership with the local banks, reasonable cash grants and reduction in administrative barriers.

**Exploit Vertical Strategic Alliances:** In order for Government to be an active driver in the ICT industry, it needs to enter into vertical strategic alliances with major international entrepreneurs. These alliances cannot fall under a blanket statement that they will result in the strengthening of the ICT industry, but it is extremely important that Government outlines what the tangible strategic advantages are (such as intellectual or capital contribution to the country) and how it plans to achieve them.

**Revamp ICT Incubation Centres:** The ‘Kordin Incubation Centre’ will be revisited and streamlined to focus more on bringing the private companies, education institutions, public bodies and investors in joint R&D projects in different fields. The Centre should also actively dedicate more appropriate resources on research breakthroughs and patents for commercialisation through the participation in Technology Transfer missions between EU and other countries.

**Foster Innovations:** The ‘Malta Council for Science and Technology’ will be streamlined within the new ICT policy of Government and will be financed appropriately to play a leading role to drive innovations and act as a centre of expertise workgroup. It will aim to bring together all the stakeholders to actively identify research breakthroughs for commercialisation and participate in the work of the EU “Innovation Relay Centre Network for Technology Transfer’.

**Promote the Local Software Industry:** Government will revisit the current divestment policy of government information systems and will embark on a long and ambitious upgrading programme to replace all non-strategic government information systems by the local software industry. This programme will aim to replace rather than to divest old legacy systems, by introducing latest technology platforms within an established set of government standards.

## Strategic Principle 6

### Promote Seamless Government through “Join Up” Public Services

Information systems should cut across Ministerial organisational boundaries to provide “joined up” services that are capable of sharing the national information infrastructure at all levels to improve government’s operational effectiveness.

Seamless government is based upon the concept where the public would not need to know which branch of government to approach in order to obtain a required service. This is achieved through electronic services that are streamlined with complete packages of services according to the individual needs rather than in parts from each of the individual functional departments.

#### Initiatives

**Consolidate Public Information:** Ensure that public sector information systems are capable of sharing at communication network levels, computer hardware, software and more importantly at the data and official records levels. A more intensive drive has to be launched to integrate these services and more important to ensure that these have the desired effect on the efficiency of the Civil Service by working on ‘e-File’ or ‘Virtual File’ concept as opposed to the traditional paper documents.

**Strive for a Seamless and Joined-up Service:** Electronic services will continue to be streamlined in “life episodes” such as setting up a business by offsetting payments and dues between tax departments or social services. This seamless type of concept requires linking services across government departments for a “joined up” service which will be connected to public sector entities, private sector and the financial institutions.

**Extend the Accessibility of e-Service:** Government will strive for a better e-Government service, first and foremost from home for the convenience of the family rather than from council offices or community centers at the end of a queue. Services have to be available at times and in ways which suit the general public – not constrained by normal office hours.

**Provide Accountable e-Service:** Government will provide more information on e-services, provide plans to the public, be more transparent on contracting, more open-minded, performance-oriented and encourage consultation. It will be more accountable and will only embark on projects following appropriate investment appraisals according to economical and social benefits. It will also promote electronic services especially where this reduce transactional costs and administrative work by creating beneficial incentives related to e-services.

**Implement i2010 e-Europe Action Plan:** Government will work on the e-Europe action plan in line with the ‘i2010 initiative for jobs and growth’ as established by the Lisbon Agenda in the information society, to contribute to community policies within e-Government, e-Health, e-Learning, e-Business and e-Inclusion.

**Enhance Healthcare e-Services:** Government will continue to improve patient care, make health systems more efficient and responsive, spend more funds on healthcare and less on administering it. It will aim to put health services on line to provide more information on healthy living, illness prevention and, teleconsultation.

**Streamline Financial e-Services:** Through the collaboration of the financial institutions, Government will revise and re-engineer the electronic payment gateway and the e-procurement framework so that these will be operated by banks as one of their core services.

**Explore e-Voting within Local Councils:** Government, in full co-operation with the electoral commission and the parties concerned, will explore the possibility of gradually implementing electronic voting facilities for the Local Councils Elections. This suggestion is to form the basis of further discussion and the aim would be to reduce operational administrative tasks by automating various routine processes within the electoral process.

## Strategic Principle 7

### Promote a Global Hub Concept on a Resilient ICT Infrastructure

Malta's competitive ICT assets have to be based on an efficient and versatile information network that relies on the availability of a high communication bandwidth and a resilient communication infrastructure.

A Labour Government will make the appropriate investment to ensure that the communication infrastructure is protected from obsolescence. Furthermore, policies will be reviewed to address appropriate consolidation and economies of scale issues taking into consideration the need to segregate highly confidential and sensitive national data and the resilience of critical entities in emergency situations.

### Initiatives

**A Technology Catalyst for Change:** Since technology is rapidly changing, with the result that what is state-of-the-art today may be obsolete tomorrow, Government will invest in ICT so that it remains at the appropriate level within the latest advances of technology. While the infrastructure serving government appears to be in a good condition, the issues of the service quality, service level agreements, security and cost effectiveness of the services delivered have to be addressed.

**Streamline the Infrastructure Consolidation Policy:** Government will continue to work on the consolidation policy that will not depend entirely on full centralisation. It will further align itself to policies based on economies of scale that will take into account the segregation of highly confidential material of the nation and the resilience of critical entities in cases of emergencies. Moreover, an extensive appraisal will be conducted related to disaster recovery and business continuity plans for strategic systems in such sectors as taxation, social security, police, health and applications of a corporate nature.

**Promote a Global Hub Concept within the Mediterranean:** Government will make every effort to promote Malta as a nucleus for staging regional and international business operations, developing the Island into a "Global Hub". This will enable Malta to continually have state-of-the-art global connectivity with the appropriate bandwidth that will allow diverse industries ranging from educational to consultative services to be established and supported from the island. Malta's competitive assets will be based on an efficient and versatile information infrastructure together with the right skilled work force to operate, manage, and get the most out of the infrastructure.

**Connect Malta to the rest of the world:** Government will ensure that Malta is connected to the rest of the world with the appropriate bandwidth that will allow a wide range of educational and consultation services to be projected and supported from the island without the need for extensive traveling. Working people, homemakers, senior citizens, and others will be able to participate in interactive distance education programmes that can bring lectures and classes delivered from the best schools in the world at their own pace and the time and place to learn.

**Implement the Building Blocks of ICT:** Government has to keep in mind the very important and delicate deadlines in the short and medium terms on the roll-out of the 3G Mobile Communication, the Broadband Wireless Access, the Digital Terrestrial TV and other related technological trends. In consultation with the stakeholders concerned, it will draw a national road map on required building blocks necessary for a real and effective networked information society.

**Support Open Standards:** In the interest of the Maltese community, the Government of Malta will support the EU initiative to promote open standards specifications in its e-Government framework and through the publication of Open Sources Policies and Standards. The intention will be to explicitly declare its support for a level playing field between Open Sources software and Propriety Software for the best value for money solutions possible.

## Strategic Principle 8

### Secure and Protect the National Cyberspace

A secure ICT environment requires controls and measures to mitigate the possibility of information loss and data corruption; unauthorised disclosure of information; and lack of information availability. Controls and measures have the objective of safe guarding the three pillars of security: confidentiality; integrity; and availability.

Government, in partnership with international organisations will sponsor a national ICT security plan for the protection of critical infrastructures and other critical utilities. This will require a high level of coordination between the relevant entities to cater for rapid response demands.

Furthermore, a national initiative will be launched for the development of a network security baseline to promote a national risk management methodology for the detection of potential electronic violations. An information security accreditation strategy will be defined to establish an appropriate mechanism for the auditing and accreditation of critical information systems.

### Initiatives

**Embark on Information Security Initiatives:** Government will embark on a national programme to ensure that all processes and state records are properly protected and secured according to the relevant business classification schemes, providing the required levels of trust and confidentiality.

**Protect Critical Infrastructure:** Government will develop nation wide ICT security structures and plans for the protection of critical infrastructures such as Telecoms, Power and other critical utilities in collaboration with similar EU structures. It will promote high tech collaboration between Police, Civil Protection, Computer Incident Response Teams and other related entities for any rapid response needs.

**Plan for Business Continuity and Disaster Recovery:** Government will ensure the continued availability of adequate resources during and after a disaster through fully tried and tested emergency services that can guarantee vital records are accessible when needed. It will create an operational environment where the business of strategic systems such as the Inland Revenue, Vat, Customs, Police, Social Services and the Health Information Systems are fully redundant to guarantee business continuity.

**Revise ICT Policies and Standards:** The existing ICT related laws and regulations will be revised and will be improved according to the development of IT Trends. Government will continue to develop and enhance the government information security policies currently in place and will further promote the use of Information Security standards such as international standard ISO 27000.

**Develop Electronic Security Base Lines:** Government will embark on a national initiative to develop a network security baseline that can be used as a reference to detect potential country electronic attacks. It will develop and promote a national Risk Management Methodology to serve as a reference for national organisations.

**Introduce Compliance and Accreditation:** A National Information Security Accreditation Strategy will be introduced where systems and organisations will be accredited with respect to information security guidelines based on EU and other international standards such as the new ISO 27000 suite. Sensitive and critical information systems within government departments and public sector entities will be audited and accredited accordingly.

## The Way Forward

A Labour Government will transform Malta into an intelligent island with a knowledge driven economy by developing and exploiting ICT skills to create new opportunities and apply creative solutions. It will recognise the importance of 'human capital' or 'intellectual assets' and will find ways and means of measuring and quantifying this very important resource.

Government will act as a catalyst through its influencing and regulating role. Within its influencing role, a Labour Government will promote technology through various forms of funding, incentives and subsidies, informational or consultation assistance and partnership projects. In the regulation role, government will exercise its legal or statutory powers to diffuse ICT by issuing directives, setting technical standards, formalizing common procedures and protecting the citizen's ICT rights. Meanwhile the private sector will be given every opportunity to play a pivotal role in the implementation of this policy document by being offered all the space and motivation to carry out its initiatives in the most pro-active manner possible, particularly in the sector of e-business development.