

**UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY
FOR DEVELOPMENT (CSTD)**

**Contribution to the CSTD ten-year review of the implementation of WSIS
outcomes**

Submitted by

MALTA

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10 year Review of Progress Made in the Implementation of WSIS outcomes.

The following are Malta's experiences, views and priorities on the progress made in some of the areas on the implementation of WSIS outcomes at regional and international levels. Our contributions are hereunder provided in relation to specific Articles the Declaration of Principles: Building the Information Society: a global challenge in the new Millennium. In particular, the Malta replies are in light of the questions which were included in the questionnaire:

- How far do you consider the implementation of such articles to have been achieved
- What are the challenges to the implementation of such articles
- How are these challenges being addressed and what approaches have proved to be effective in your experience

Section 2 of the Declaration: Information and Communication infrastructure: as an essential foundation for an inclusive information Society

Paragraph 21

Mainly due to its size and geography, Malta does not have any problems with either end-user connectivity to telecoms infrastructure or universal services. Three private undertakings dominate the market with their ubiquitous infrastructures. All three provide 3G mobile telephony and data services with one currently deploying a 4G network. The traditional fixed line incumbent operator also owns fixed copper-wire/fibre-optic and Digital Terrestrial TV infrastructures providing fixed telephony, broadband services and television content. The cable operator is capable of transmitting both television content and broadband services. Given that these networks cover the whole of the Maltese Islands, the said undertakings are capable of delivering broadband services reaching up to 100Mbps. Other broadband services of up to 250Mbps services are also offered in certain localities.

Connectivity to energy services and reach of postal services are also not a problem.

Paragraph 22

This is the case in Malta. Technological advancement has indeed resulted in such progress.

Paragraph 23

As a Member of the EU, Malta is obliged to implement its laws. European telecoms legislation is one of the most advanced in the world with regards to competition and universal services. Malta does not have issues in either.

Section 3 Access to information and knowledge

Paragraph 26

- *How far do you consider the implementation of such articles to have been achieved?*

Public cultural institutions in Malta that hold significant collections and depositories of cultural material are active in the digitisation and the provision of free public access to such digitalised material, with a view to increasing public access to cultural material. To this effect, Malta has implemented a number of initiatives related to the digitisation of cultural heritage over the past years. Coordination between different initiatives is loose and flexible, based on the priorities, funding and other resources available at the implementation end. The key stakeholders in this effort are the Superintendence for Cultural Heritage, Heritage Malta, the National Archives of Malta and Malta Libraries. All public domain items are made available for free to the general public.

- *What are the challenges to the implementation of such articles?*

The main challenges in the field of online and digital access to cultural material is financial resources as well as technical expertise in the creation, management and operations of online databases and catalogues of cultural material. Thus additional investment in the field of digitisation capacity is required. A critical area that needs to be addressed is the audiovisual (sound and moving images) archives and collections, as this category of cultural material has received only partial attention to date.

- *How are these challenges being addressed and what approaches have proved to be effective in your experience?*

Coordination between key stakeholders is fundamental, including collaborations between public entities, the involvement of NGOs and individuals working in the sector and the creation of interactive tools to maximise participation and contribution towards the public domain by as wide a range of participants as possible.

Section 5: Building confidence and security in the use of ICTs

Paragraph 35

Information and network security are fundamental trust attributes and in this respect Malta through its national CSIRT (Computer Security Incident Response Team) branded as CSIRTMalta is providing the Maltese general society with information on how to protect critical information assets from cyber threats and vulnerabilities. CSIRTMalta is one activity of Malta CIP (Critical Infrastructure Protection) unit within the Cabinet Office, Office of the Prime Minister.

Since security incidents and breaches will endure and most often take precedence over other news in media, the general society tends to lose confidence in ICT. The main challenge remains

the lack of adequate technical, financial and human resources to promote a culture of cyber security via adequate and regular awareness programs, hands-on trainings and seminars

In order to address such challenges, the Malta CIP unit organises security trainings on regular basis, the last event happened last June and was organised in collaboration with ENISA (EU Network Information Security Agency). The workshop was about Cyber Incident Handling. The aim of Malta CIP is to develop a culture of cyber security within critical infrastructures and on a national level

Section 6 of the Declaration: Enabling Environment

Paragraph 39

Malta is obliged to implement European legislation which is one of the most advanced in the world with regards to competition. Such legislation gives the Malta Communications Authority the power to intervene ex-ante to pre-empt any market failures. The same applies to ex-post competition law administered by the Malta Competition and Consumer Affairs Authority.

The same telecoms laws together with more targeted national legislation and Government policies have the aim to attract further investments to the Maltese Islands.

Paragraph 44

MITA, the central driver of Information and Communication Technologies (ICT) in Malta, disseminates the culture of Open Standards within Government and the local ICT industry. MITA is responsible for the upkeep of the Government of Malta ICT Policies, Directives, Procedures and Standards, collectively referred to as the GMICT Policy Framework <http://mita.gov.mt/en/GMICT/Pages/GMICT-Policies.aspx>). The following are some of the policy related initiatives taken to promote ICT standards within Government:

- In May 2011, MITA has updated the Open Standards policy and directive to harmonise Government's direction with the guidance given by the European Interoperability Framework version 2.0 document published by the Commission on December 2010. This includes the definition and approach towards formalised specifications and "openness" characteristics.
- In August 2011, MITA published a Formalised Specification Adoption procedure, a set of guidelines and a request form template to provide the public sector, business community and the general public the opportunity to request the consideration for the application of formalised specifications within Government.
- In 2012, the Open Standards policy and directive have been consolidated with other interoperability related policy statements in the Interoperability and Open Specifications Policy. Together with the National ICT Interoperability Framework (NIF, <http://mita.gov.mt/en/Technology/Initiatives/Interoperability/Pages/NIF.aspx>) objective is to guide the Public Sector in maximising the benefits from all technology investments by

introducing ICT resources that are flexible, reusable and interoperable. The NIF takes into account the European context by, among other things, specifically adopting the definitions and introducing the principles and recommendations issued by the European Interoperability Framework (EIF) as directed by the European Interoperability Strategy (<http://ec.europa.eu/isa/>).

- In 2013 an overarching ICT Solutions Policy, among other things, highlighted that “the ability to share and process data beyond its source of origin is considered fundamental and expected. Any shareable data shall be exposed through appropriate machine readable mechanisms in an industry standard fashion, using open standards and interoperable engineering principle/practices. Specifically in the context of domain data, ownership of the data is considered to rest within the respective legally empowered authority/authorities, unless explicitly otherwise indicated. As a matter of preference, any machine to machine (solution to solution) interaction between data consumers and providers shall happen directly between the consumer and the specific information system storing and processing such domain data”

Development

- MITA promotes the concept of re-use of corporate shared and/or common data and infrastructure services across Government by formalising “data registries” and identifying “core” enterprise architecture components. A notable example are the eGovernment shared services and developer’s toolkits (<http://mita.gov.mt/en/eGov/Pages/eGovernment.aspx>) which provide Government entities and departments with a centralised suite of components to be used within their public facing processes and services. The package standardises a variety of common functionality including secure authentication mechanisms, form management and processing, notifications and secure online payments. eGovernment Services may interact with, customise and integrate such functionality according to their business requirements, without having to recreate their own functionality and at the same time promoting a consistent user experience throughout.

- MITA has also launched the Spatial Data Infrastructure (SDI) portal for INSPIRE related geospatial datasets (<http://sdi.data.gov.mt/>). The INSPIRE Directive itself has been transposed into Maltese Legislation under the provisions of the Development Planning Act and brought into force by LN 339/09 Infrastructure for Spatial Information Regulations, of 22 December 2009. Government has approved terms of reference for MITA to implement an NSDI programme, inter-alia implementing the INSPIRE directive. The mandate includes a governance structure for geographic information relevant to a National Spatial Information Infrastructure, as well as centralised provisioning of a broad range of users, and the public, leveraging the Malta Government Network and Internet deployment. The current active stakeholders contributing to the implementation of the infrastructure for spatial information are currently limited to MITA and the Malta Environment and Planning Authority (MEPA). MITA is also providing the necessary guidance and infrastructure for the legally mandated bodies responsible for the principal data themes

Strategy

In 2014 MITA in collaboration with the Malta Communication Authority performed a consultative process with different stakeholders and published the national Information Communication Technology strategy for 2014 – 2020, referred to as Digital Malta (<http://digitalmalta.gov.mt/en/Pages/Home.aspx>). The vision for “a digitally-enabled country empowering its people, communities and entrepreneurs through the intelligent and universal use of ICT” includes various guiding principles, actions and initiatives across a number of strategic themes. Evidence of the importance given to standardisation can be observed across the strategy. The following are quotes from the strategy:

· Underlying principles (page 23)
“Adopting an open and experimental mind-set, capitalising on lessons learned from success stories and respecting best practices and international standards.”

· Actions - Accessibility and Assistive Technology (page 28)
“Internet accessibility standards will be promoted to enable everyone, irrespective of disability, to navigate and access content to access and use of assistive technologies will be promoted and facilitated to help independent living of the elderly and vulnerable groups. This will also stimulate market demand for diverse, affordable technologies.”

· Digital Government - Guiding principles (page 39)
“Government will adopt open standards, encouraging the exchange of information and innovation, while seeking healthy competition and lower costs. Equal consideration will be given to open source and closed source software.”

· Interoperability and Standards (page 49)
“The fast pace of ICT development requires continuous review of industry standards. Government has a leadership role to play. It must ensure standards and policies produce optimal returns on investment in systems architecture and data that is open and interoperable.

Standards and Good Practice - Government will collaborate with stakeholders to support and promote:

- National and EU cross-border interoperability.
- ICT standards based on industry best practices.
- Green ICT.”

· Infrastructure – Guiding principles (page 51)
“The design and implementation of government network infrastructure and applications will to be based on open standards to ensure interoperability and collaboration at national and international level.”
“Government will lead by example, adopting high quality standards and embracing important technology principles such as abstraction, loose coupling, cohesiveness and generality.”

- *What are the challenges to the implementation of such articles?*

From a local perspective, traditional information systems are frequently given birth to and evolved as specific “islands” maintained within the context of the original business purposes they were created for. Outside of the system’s typical graphical user interface, data exchange (when available) is usually implemented by proprietary or custom built interfaces, with a varied mix of interchange formats and integration solutions. The complexity of this approach/challenge becomes exponentially amplified when data or functionality needs to be made available to an increasing amount of external systems or even the general public, which in most cases have no prior knowledge on the original business environment.

This (challenge) is further compounded when one considers international interoperability as highlighted by Digital Malta (page 18):

“The drive of the European Commission to accelerate interoperability, making systems and organisations work together, poses additional challenges and opportunities. It nurtures the concept of connected government through the alignment of departmental processes, standardisation, discovery and reuse of ICT assets and continuous rigour in improving the level of trust in the services provided by the public sector. Implementation of information systems within the public sector needs to incorporate the principles and recommendations of initiatives such as the European Interoperability Framework, European Interoperability Strategy and the semantic initiatives promoted through the European Commission’s Joinup platform.”

Generically speaking, standards are considered an enabler for interoperability. Governments would benefit not only from referring to local and international standards body for standards that can be used within public procurement, but they could share their experience with each other and the industry to ensure that ICT products and services are developed according to the most applicable standards. In the wake of cloud services and infrastructures, the ability to seamlessly migrate solutions from different vendors while retaining the core service portfolio gives more impetus to standards. This also implies that the process of defining standards, attributing them with the relevant importance in key processes such as tendering and implementing them in the market needs to be accelerated.

- *How are these challenges being addressed and what approaches have proved to be effective in your experience*

One of the many approaches that Digital Malta highlights is that (page 19):

“Government needs to consider innovative means to procure ICT services, explore the feasibility of private funding and public-private partnerships, and consider the prospect of re-using and sharing with other countries.” As mentioned in the precious sections, the Digital Malta strategy recognises the importance of standards, and endeavours to provide the strategic direction to consider them at design and eventually in the procurement phases of ICT projects.

As the consultative approach taken by Digital Malta demonstrated, it is important to meet different stakeholders from relevant perspectives, especially when it comes to matters which are usually the domain of a select few such as the case with standards. Non-experts have the tendency to see beyond the limitations that exist within an existing process with the desired possibility to positively disrupt and innovate on how standards can be made more effective.

Paragraph 45

This is done in full observance of both international treaties and specific European legislation.

Paragraph 50

This group has been set up.

(8) Cultural diversity and identity, linguistic diversity and local content

Paragraph 52

- *How far do you consider the implementation of such articles to have been achieved?*

Malta was among the first group of European Union Member States to have acceded to the Convention on the Protection and Promotion of the Diversity of Cultural Expressions in 2006. This has had a direct impact on the inclusion of cultural diversity and its principles in the drafting of the National Cultural Policy for Malta (2011) and in the considerations effecting the Creative Economy Strategy for Malta (2012).

- *What are the challenges to the implementation of such articles?*

Translating policy and strategic documents to concrete actions effecting societal behaviour and attitudes is the main challenge in this area. The best examples arise from grass-roots initiatives led by civil society. In the past few years, Malta has devised a number of initiatives and funding schemes that enable individuals and organisations active in a range of social and cultural backgrounds to develop and affirm cultural difference and promote it with the rest of society. For such an effort to have a long-lasting effect, sustained support and wider awareness is required, including through the support of the traditional and new media.

- *How are these challenges being addressed and what approaches have proved to be effective in your experience?*

In Malta's preparation for the European Capital of Culture, a title to be held by Valletta in 2018, a number of projects are being developed with diverse communities. It is hoped that the synergies being developed with the different levels of national and local government, the participation and active contribution of NGOs, and the open participatory approach for the general public enables these initiatives to have an impact on other local and national cultural initiatives in the medium to long term.

