Report on the outcome of the monitoring and use of the enforcement procedure as per Directive (EU) 2016/2102 and CID (EU) 2018/1524

Malta Report

20th December 2021

Table of Contents

List of Abbreviations

ADHD	Attention Deficit Hyperactivity disorder
CID	Commission Implementing Decision
CIO	Chief Information Officer
CMS	Content Management System
CRPD	Commission for the Rights of Persons with Disability
EN	European Norm
EU	European Union
FITA	Foundation for Information Technology Accessibility
HTML	Hypertext Mark-up Language
JAWS	Job Access with Speech
LAU	Local Administrative Unit
MCA	Malta Communications Authority
MoU	Memorandum of Understanding
NGO	Non-governmental organisation
NUTS	Nomenclature of territorial units for statistics
NVDA	Non visual Desktop Access
ODI	Office for Disability Issues
PDF	Portable Document Format
PR	Public Relations
ToRB	Terms of Reasonableness Board
WAD	Web Accessibility Directive
WAI-ARIA	Web Accessibility Initiative – Accessible Rich Internet Applications
WCAG	Web Content Accessibility Guidelines
W3C	World Wide Web Consortium

1. EXECUTIVE SUMMARY OF THE REPORT

This report comprises the pertinent information related to the implementation of the Directive (EU) 2016/2102 of the European Parliament and of the Council of 26 October 2016 on the accessibility of the websites and mobile applications of public sector bodies (also referred to as the "Directive" or the "WAD") in Malta.

The MCA (also referred to as the "Authority") was designated by the Government of Malta to implement the monitoring, reporting and enforcement tasks in accordance with the norms stated in the Directive. Once this designation was formalised, the MCA started working on various fronts related to the transposition of the Directive into Maltese national law, the setting up of internal policies and procedures to support this new work stream and the establishment of a network of parties with an interest in accessibility in general and digital accessibility in particular.

The MCA has in place a transparent process providing for the effective monitoring and enforcement of the WAD. Amongst others, MCA is ensuring that all relevant third parties including Ministry CIOs, heads of the various public sector entities and also the general public are aware of the benefits that may be derived from this exercise and also the responsibilities they have. This on-going communications channel with these parties has proved to be invaluable to the success of the process that is now in place.

The MCA makes use of a number of website testing tools that were trialled before they were adopted as part of the monitoring method. A common set of tools allows the Authority to simplify the process as much as possible whilst introducing an element of uniformity in the testing process. These tools are maintained updated at all times to ensure they comply with the overarching EN 301549 standard.

The sampling methodology that is being adopted is also based on an open and consultative process that primarily involves a purposely setup focus group which is routinely consulted on the sample to be assessed but also on on-going issues and challenges that are faced by the community. This collaboration was expanded to also include the national CRPD and FITA. The MCA has established a long term relationship with these two expert bodies and their feedback and input is sought on a continuous basis.

Based on Malta's population, a minimum of 85 public sector websites are assessed on a yearly basis through the simplified method whilst 14 public sector websites are assessed on a yearly basis through the in-depth method. Since June 2021, seven public sector mobile apps are also being assessed on a yearly basis through the in-depth method. Through this assessment process, a notable improvement in the accessibility posture of public sector websites has already been observed. The support from the various Government entities has also been very positive as the Authority managed to assess the websites and subsequently re-test them again to verify their compliance. A marked improvement was observed across virtually all websites which consequently resulted in better accessibility across the board.

The MCA will continue to adjust and refine the WAD's implementation processes based on the feedback of its various partners and on its own experience in the continued implementation of the Directive. The momentum that was built through the implementation of the Directive augurs well for a more accessible public sector in the coming years.

Any reference to the DIRECTIVE (EU) 2016/2102 or the Web Accessibility Directive refers to the *Directive (EU) 2016/2102 of the European Parliament and of the Council of 26 October 2016 on the*

accessibility of the websites and mobile applications of public sector bodies as published by the European Commission on the 26 October 2016 and available at Link to WAD Text .

Any reference to *Commission Implementing Decision (EU) 2018/1524* refers to the *Commission Implementing Decision (EU) 2018/1524* as published by the European Commission on the 11th October 2018 and available *at Link to Commission Implementing Decision (EU) 2018/1524* .

This report's structure is based on the aforementioned Commission Implementing Decision (EU) 2018/1524.

2. DESCRIPTION OF THE MONITORING ACTIVITIES

2.1 General Information

2.1.1 Monitoring Period

Monitoring period: 01/01/2020 to 22/12/2021 (for websites), 23/06/2021 to 22/12/2021 (for mobile applications).

2.1.2 Monitoring Body

The body in charge for the WAD Monitoring Process in Malta is the MCA. The MCA was established on the 1st January 2001 and is the statutory body responsible for the regulation of the various electronic communications sectors, which include fixed and mobile telephony, Internet and TV distribution services. Moreover, the Authority regulates two other sectors which are the postal services, as well as the eCommerce sector. Given the MCA's considerable experience in digital regulation, Government decided to include the implementation of DIRECTIVE (EU) 2016/2102 within the Authority's remit.

2.1.3 Monitoring Sample Representativeness and Distribution

I. Monitoring Sample Geographical Limitations

Malta has a population of circa 500,000 inhabitants, a total area of 246 square kilometres, and is the smallest EU member state. Due to its small geographical size and population, Malta's different regions are not classified as being major socio-economic regions (NUTS level 1) or basic regions (NUTS level 2) since they do not have enough inhabitants to qualify as such. Currently, Malta does not have any NUTS level 1 or NUTS level 2 territories and only two NUTS level 3 territories (Malta and Gozo and Comino) are recognised.

As of 2021, the largest region (town) in Malta by inhabitants which is classified as a separate LAU is San Pawl il-Bahar with a total population of 32,204 inhabitants. When taking into consideration separate LAUs, the average population is of 7,567 inhabitants. The small population and close geographical proximity as well as the very small area of the country which forms the two NUTS level 3 territories made it unfeasible for the Authority to consider websites at a regional level.

II. Representativeness of sample

A web accessibility focus group managed by the CRPD was established to discuss current issues related to web accessibility as well as provide feedback and insight on subjects related to persons with disabilities and the Directive processes. The representativeness of the chosen sample was also confirmed with the same Focus Group which was consulted at all times. The CRPD in Malta has been active since 1987 and has since operated in the social sector to eliminate any form of direct or indirect

social discrimination against persons with disability and their families, while providing them with the necessary assistance and support.

A representative from FITA is also part of the web accessibility focus group.

The other members of the focus group are staff from the MCA working on the WAD, representatives from various NGOs and other parties interested in the rights of persons with disabilities.

The web accessibility focus group meets at least once annually and other ad-hoc meetings are carried out as required.

III. Identification of Websites and Mobile Applications

An exercise that focused on the Maltese Government's ministries structure was conducted to determine the number of websites and mobile applications used by public sector bodies which would fall under the Directive's monitoring scope. In order to compile this list, each ministry in Malta was contacted by the MCA and the required information was requested accordingly. Once a complete list of public sector websites and mobile applications had been compiled, the monitoring samples selection process started. The MCA widened the sampling process to the afore mentioned focus group to ensure the sample for the monitoring year reflected in particular the interests of persons with disabilities.

This identification process is on-going to ensure new public sector websites and apps are captured as they go online and those that are decommissioned are removed from the list accordingly.

IV. Websites Monitoring Sample

Territorial Representation and Distribution

During the initial identification of websites and mobile applications when extensive discussions were held with the relevant stakeholders through the web accessibility focus group, the Government CIOs Forum and other relevant parties, it was observed that virtually all websites which fall within the scope of monitoring operate at a state level and do not fall under specific regions or economic territories.

In fact, only a very small percentage of local websites operate or offer services within a specific economic territory only and this was taken into consideration when selecting the sample of websites for this monitoring period. Based on the experience gained to date, it is envisaged that in the next monitoring period there will not be any territory specific websites to be included in the sample.

Public Sector Representation and Distribution

The different public sector bodies in Malta are represented within various Ministries which form the Government of Malta. The website monitoring sample was chosen based on the following factors to ensure a fair representation of the Maltese public sectors;

a) **Equal distribution -** Where possible, the monitoring sample included websites from all the different ministries currently set by the Government.
b) **Size distribution -** Ministries which include a larger number of websites under their remit were represented accordingly in the monitoring sample.
c) **Ministries with significant impact on persons with disabilities –** Ministries that offer specific services to persons with disabilities or operate within the social services sector were represented accordingly in the monitoring sample.

V. Mobile Applications Monitoring Sample

The mobile applications monitoring for this report's monitoring period started in June 2021 as per the Directive's requirements. Due to the short monitoring period, a smaller number of mobile applications were selected to make up the monitoring sample.

Operating System Representation and Distribution

The chosen mobile applications for this monitoring period were distributed as equally as possible between the identified operating systems during the initial identification of mobile applications. Two operating systems were identified;

- iOS
- Android

Public Sector Representation and Distribution

The approach detailed in *Subsection 2.1.3.IV* above with regards to public sector distribution was also adopted for mobile applications.

Further Considerations

The popularity and usage of mobile applications were also assessed using publicly available measurement data and the monitoring sample was adjusted for such mobile applications accordingly.

2.2 Composition of the sample

The number of websites and mobile applications monitored were based on the number of inhabitants and the number of required websites and mobile applications as mentioned in *Annex II, Section 2* of the *Commission Implementing Decision (EU) 2018/1524*. At the start of the monitoring period, the population in Malta was at just about 500,000.

The total number of websites and mobile applications included in the sample for this monitoring period was thus **204.**

2.2.1 Simplified Monitoring

Based on the workings as listed in *Subsection 2.1.2* of the *Commission Implementing Decision (EU) 2018/1524* the minimum number of websites to be monitored in Malta each year is 10 (two per 100 000 inhabitants) plus 75 websites. The number of websites monitored using the simplified monitoring method for this monitoring period was **172.**

I. In the first year (2020) of the monitoring period, **87** websites were monitored using the simplified method. 85 websites were monitored as part of the minimum required sample number and a further two websites were added to the sample based on continued feedback received from the web accessibility focus group.
II. In the second year (2021) of the monitoring period, **85** websites were monitored using the simplified method.

2.2.2 In-Depth Monitoring

The number of websites and mobile applications monitored using the in-depth monitoring method was **32.**

The distribution between mobile applications and websites was as follows;

I. Based on the workings listed in *Subsection 2.1.4* of the *Commission Implementing Decision (EU) 2018/1524* the minimum number of websites to be monitored in Malta each year is 4 (5% of simplified monitoring sample) plus 10 websites. The number of websites monitored using the in-depth monitoring method was **28.**
    a. In the first year (2020) of the monitoring period, **14** websites were monitored using the in-depth method.
    b. In the second year (2021) of the monitoring period, **14** websites were monitored using the in-depth method.

II. Based on the workings listed in *Subsection 2.1.5* of the *Commission Implementing Decision (EU) 2018/1524* the minimum number of mobile applications to be monitored in Malta each year is 1 (since Malta's population is less than 1 Million, one mobile application was included into the sample as a minimum) plus 6 mobile applications. Since the monitoring for mobile applications started in June 2021 as mentioned in *Subsection 2.1.3.V*, the number of mobile applications monitored for this monitoring period was **4.**

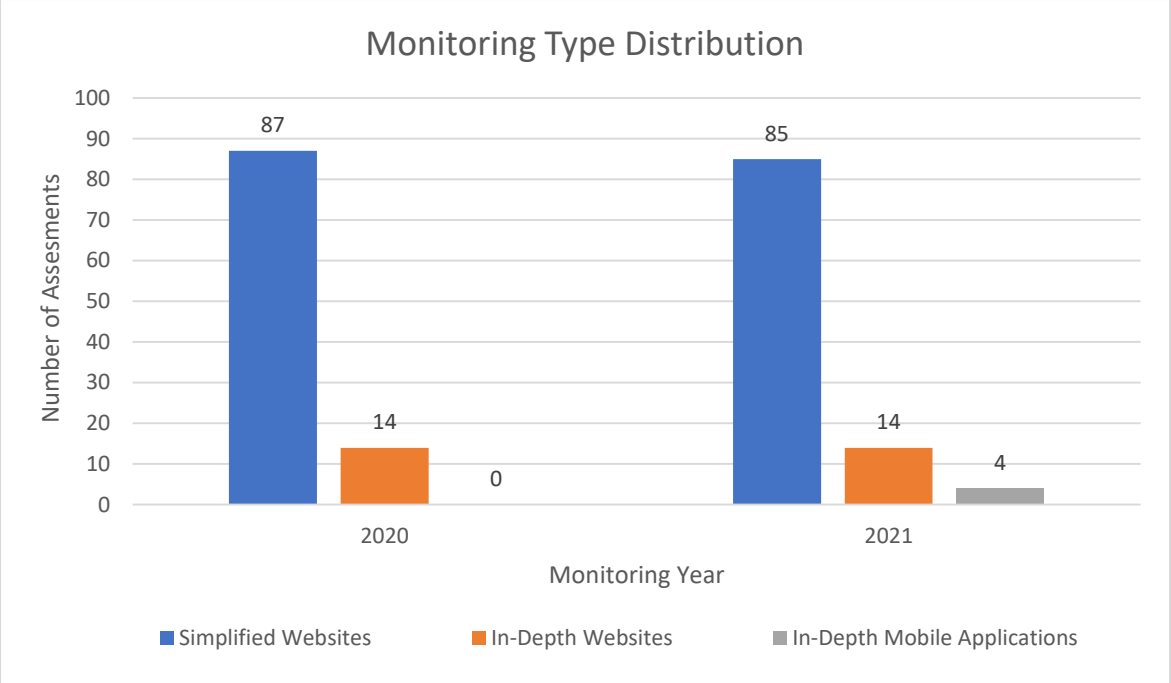


Figure 2.2.1: Distribution of websites and mobile applications over the monitoring period

2.2.3 Websites and Mobile Applications Distribution by Territory

As mentioned in *Subsection 2.1.3.III*, the vast majority of websites and mobile applications which offer services to the Maltese public do not operate within a specific local territory since Malta is itself considered to be a single territory. To this extent they are all classified as state websites and mobile applications. During this first monitoring period, the only website which was identified as operating in the MT002 Gozo and Comino territory was added to the sample. No other sector specific websites were observed.

2.2.4 Websites Distribution by Sector

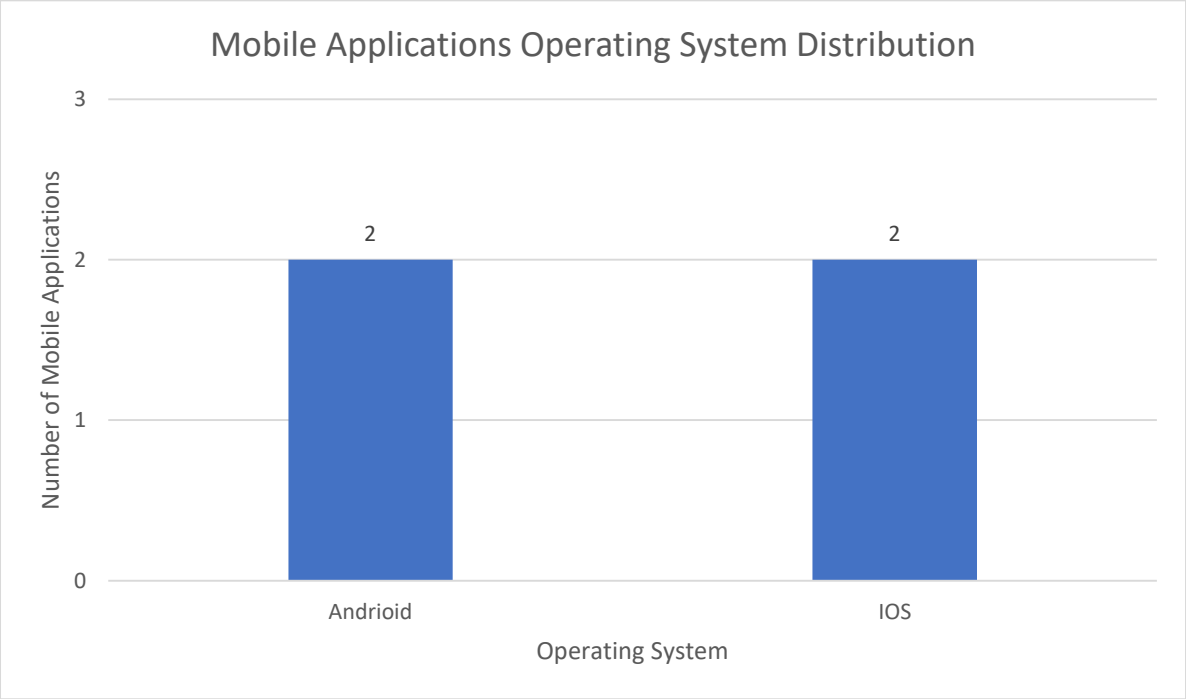
The selected websites for the monitoring sample were distributed as follows between the ministries in Malta ensuring all the different sectors were represented as equally as possible by using the different factors listed in *Subsection 2.1.3.IV*.

Distribution of Monitored Websites by Ministry as represented in the national government.

Ministry Name	**No. of Websites in Sample**
Ministry for Justice and Governance	6
Ministry for Education	20
Office of the Prime Minister	22
Ministry for the Economy and Industry	22
Ministry for Health	24
Ministry for Social Accommodation	2
Ministry for The National Heritage, The Arts and Local Government	15
Ministry for Tourism and Consumer Protection	10
Ministry for Transport, Infrastructure and Capital Projects	11
Ministry for Finance	14
Ministry for Gozo	2
Ministry for Foreign and European Affairs	3
Ministry for Home Affairs, National Security and Law Enforcement	15
Ministry for The Environment, Climate Change and Planning	9
Ministry for Social Justice and Solidarity, The Family and Children's Rights	16
Ministry for Energy, Enterprise and Sustainable Development	5
Ministry for Inclusion and Social Wellbeing	3
Ministry for Agriculture, Fisheries, Food and Animal Rights	1

2.2.5 Mobile Applications Distribution by Operating System

The two identified operating systems for mobile apps were IOS and Android. The selected sample of mobile applications was distributed evenly between the two operating systems identified.



2.2.6 Recurring Sample

Since this was the first monitoring period the recurring sample is not applicable.

2.3 Correlation with the standards, technical specifications and tools used for monitoring

2.3.1 Monitoring Methods Compliance with Accessibility Standards

I. Simplified Website Monitoring Methods

The simplified website monitoring process was mainly carried out using the automated testing tool mentioned below in *Subsection 2.3.1.I - Siteimprove Accessibility Checker Tool* with the exception of the accessibility statement checks. The accessibility statements were checked manually as described in *Subsection 2.3.2.I - Accessibility Statement Compliance Checks.*

Siteimprove Accessibility Checker Tool

In the initial stages of the Web Accessibility Directive's implementation, various applications were assessed and tested to determine if they can be used as part of the simplified monitoring process. Factors such as ease of use, test automation and reporting capabilities were all taken into consideration during this evaluation period.

Siteimprove was eventually chosen to help automate the required tests and monitor the simplified sample of websites. Siteimprove's Accessibility Checker is able to test for a number of different WCAG criteria which span across all four required accessibility principles as set in the requirements of *Article 4 of Directive (EU) 2016/2102*.

Table 2.3.1 lists which WCAG criteria Siteimprove is able to assess programmatically and how it maps to the WCAG conformance level, the EN 301 549 standard and relevant accessibility principle.

WCAG Criteria	Criteria Name	WCAG Conformance Level	EN Standard Mapping	Principle
1.1.1	Non-text Content	A	9.1.1.1	Perceivable
1.2.1	Audio-only and Video-only (Prerecorded)	A	9.1.2.1	Perceivable
1.2.2	Captions (Prerecorded)	A	9.1.2.2	Perceivable
1.2.3	Audio Description or Media Alternative (Prerecorded)	A	9.1.2.3	Perceivable
1.2.4	Captions (Live)	AA	9.1.2.4	Perceivable
1.2.5	Audio Description (Prerecorded)	AA	9.1.2.5	Perceivable
1.3.1	Info and Relationships	A	9.1.3.1	Perceivable
1.4.1	Use of Color	A	9.1.4.1	Perceivable
1.4.2	Audio Control	A	9.1.4.2	Perceivable
1.4.3	Contrast (Minimum)	AA	9.1.4.3	Perceivable
1.4.5	Images of Text	AA	9.1.4.5	Perceivable
2.2.1	Timing Adjustable	A	9.2.2.1	Operable
2.4.1	Bypass Blocks	A	9.2.4.1	Operable
2.4.2	Page Titled	A	9.2.4.2	Operable
2.4.3	Focus Order	A	9.2.4.3	Operable

WCAG Criteria	Criteria Name	WCAG Conformance Level	EN Standard Mapping	Principle
2.4.4	Link Purpose (In Context)	A	9.2.4.4	Operable
2.4.5	Multiple Ways	AA	9.2.4.5	Operable
2.4.6	Headings and Labels	AA	9.2.4.6	Operable
2.4.7	Focus Visible	AA	9.2.4.7	Operable
3.1.1	Language of Page	A	9.3.1.1	Understandable
3.1.2	Language of Parts	AA	9.3.1.2	Understandable
3.2.2	On Input	A	9.3.2.2	Understandable
3.3.1	Error Identification	A	9.3.3.1	Understandable
3.3.2	Labels or Instructions	A	9.3.3.2	Understandable
3.3.3	Error Suggestion	AA	9.3.3.3	Understandable
4.1.1	Parsing	A	9.4.1.1	Robust
4.1.2	Name, Role, Value	A	9.4.1.2	Robust

Table 2.3.1 *Siteimprove Automated Testing WCAG Criteria Mapping*

Based partly on the outcome of the first monitoring period but also on improvements in website testing technologies, the Authority will decide if it will keep making use of Siteimprove as its main tool for simplified website testing or consider other options. The Authority routinely reviews other testing platforms to keep abreast with changes in the market.

Simplified Monitoring Accessibility Needs Mapping Table

Table 2.3.2 lists how each WCAG criteria which Siteimprove is able to assess programmatically maps to the disability needs as listed in *Annex I*, *Subsection 1.3.2* of the *COMMISSION IMPLEMENTING DECISION (EU) 2018/1524*.

- **V** - Usage without Vision
- **LV** - Usage with Limited Vision
- **C** - Usage without Perception of Colour
- **H** - Usage without Hearing
- **LH** - Usage with Limited Hearing
- **VC** - Usage without Vocal Capability
- **MS** - Usage with Limited Manipulation or Strength
- **PST** - The Need to minimise Photosensitive Seizure Triggers
- **LC** - Usage with Limited Cognition

WCAG Criteria	Criteria Name	V	LV	C	H	LH	VC	MS	PST	LC
1.1.1	Non-text Content	X	X	-	X	X	-	-	-	X
1.2.1	Audio-only and Video-only (Prerecorded)	X	X	-	X	X	-	-	-	X
1.2.2	Captions (Prerecorded)	-	-	-	X	X	-	-	-	X
1.2.3	Audio Description or Media Alternative (Prerecorded)	X	X	-	-	-	-	-	-	X
1.2.4	Captions (Live)	-	-	-	X	X	-	-	-	X
1.2.5	Audio Description (Prerecorded)	X	X	-	-	-	-	-	-	X
1.3.1	Info and Relationships	X	X	-	-	-	-	-	-	X
1.4.1	Use of Color	X	X	X	-	-	-	-	-	X
1.4.2	Audio Control	X	-	-	-	X	-	-	-	X

WCAG Criteria	Criteria Name	V	LV	C	H	LH	VC	MS	PST	LC
1.4.3	Contrast (Minimum)	-	X	X	-	-	-	-	-	-
1.4.5	Images of Text	-	X	-	-	-	-	-	-	X
2.2.1	Timing Adjustable	X	X	-	-	-	-	X	-	X
2.4.1	Bypass Blocks	X	X	-	-	-	-	X	-	X
2.4.2	Page Titled	X	X	-	-	-	-	X	-	X
2.4.3	Focus Order	X	X	-	-	-	-	X	-	X
2.4.4	Link Purpose (In Context)	X	X	-	-	-	-	X	-	X
2.4.5	Multiple Ways	X	X	-	-	-	-	X	-	X
2.4.6	Headings and Labels	X	X	-	-	-	-	X	-	X
2.4.7	Focus Visible	-	X	-	-	-	-	X	-	X
3.1.1	Language of Page	X	X	-	X	X	-	-	-	X
3.1.2	Language of Parts	X	X	-	X	X	-	-	-	X
3.2.2	On Input	X	X	-	-	-	-	-	-	X
3.3.1	Error Identification	X	X	X	-	-	-	-	-	X
3.3.2	Labels or Instructions	-	X	-	-	-	-	-	-	X
3.3.3	Error Suggestion	X	X	-	-	-	-	X	-	X
4.1.1	Parsing	X	-	-	-	-	-	X	-	X
4.1.2	Name, Role, Value	X	X	-	-	-	-	X	-	X

Table 2.3.2 *Accessibility Needs Mapping*

II. In-Depth Website Monitoring Methods

The In-Depth website monitoring method is carried out by the MCA with the support of FITA. FITA has been operating in the digital accessibility sector for over 20 years. Through their day-to-day operations they assist persons with disabilities in the selection, acquisition, or use of an assistive technology that is intended to maintain or improve the individual's quality of life. FITA also provides consultancy services related to the implementation of ICT Accessibility and web accessibility tools. The MCA found their services and experience in the ICT disability sector to be vital when monitoring in depth websites and mobile applications using manual testing processes, usability tests and other specialised approaches.

A mix of automated testing tools and manual checks are used to perform the in-depth website monitoring processes. The set of WCAG criteria to be assessed, which cover all four accessibility principles as set in the requirements of *Article 4 of Directive (EU) 2016/2102* and the overarching EN 301 549 standard are used as the basis for assessment. The criteria for the in-depth website monitoring method are listed in *Table 2.3.3*.

Table 2.3.3 lists how each WCAG criteria chosen for the in-depth website monitoring method maps to the WCAG conformance level, the EN 301 549 standard and accessibility principle*.

WCAG Criteria	**Criteria Name**	**WCAG Conformance Level**	**EN Standard Mapping**	**Principle**
1.1.1	Non-text Content	A	9.1.1.1	Perceivable
1.2.1	Audio-only and Video-only (Pre-recorded)	A	9.1.2.1	Perceivable
1.2.2	Captions (Pre-recorded)	A	9.1.2.2	Perceivable
1.2.3	Audio Description or Media Alternative (Pre-recorded)	A	9.1.2.3	Perceivable
1.2.4	Captions (Live)	AA	9.1.2.4	Perceivable
1.2.5	Audio Description (Pre-recorded)	AA	9.1.2.5	Perceivable
1.3.1	Info and Relationships	A	9.1.3.1	Perceivable
1.3.3	Meaningful Sequence	A	9.1.3.2	Perceivable
1.3.3	Sensory Characteristics	A	9.1.3.3	Perceivable
1.4.1	Use of Colour	A	9.1.4.1	Perceivable
1.4.2	Audio Control	A	9.1.4.2	Perceivable
1.4.3	Contrast (Minimum)	AA	9.1.4.3	Perceivable
1.4.4	Resize text	AA	9.1.4.4	Perceivable
1.4.5	Images of Text	AA	9.1.4.5	Perceivable
2.1.1	Keyboard	A	9.2.1.1	Operable
2.1.2	No Keyboard Trap	A	9.2.1.2	Operable
2.2.1	Timing Adjustable	A	9.2.2.1	Operable
2.2.2	Pause, Stop, Hide	A	9.2.2.2	Operable
2.3.1	Three Flashes or Below Threshold	A	9.2.3.1	Operable
2.4.1	Bypass Blocks	A	9.2.4.1	Operable
2.4.2	Page Titled	A	9.2.4.2	Operable

WCAG Criteria	Criteria Name	WCAG Conformance Level	EN Standard Mapping	Principle
2.4.3	Focus Order	A	9.2.4.3	Operable
2.4.4	Link Purpose (In Context)	A	9.2.4.4	Operable
2.4.5	Multiple Ways	AA	9.2.4.5	Operable
2.4.6	Headings and Labels	AA	9.2.4.6	Operable
2.4.7	Focus Visible	AA	9.2.4.7	Operable
3.1.1	Language of Page	A	9.3.1.1	Understandable
3.1.2	Language of Parts	AA	9.3.1.2	Understandable
3.2.1	On Focus	A	9.3.2.1	Understandable
3.2.2	On Input	A	9.3.2.2	Understandable
3.2.3	Consistent Navigation	AA	9.3.2.3	Understandable
3.2.4	Consistent Identification	AA	9.3.2.4	Understandable
3.3.1	Error Identification	A	9.3.3.1	Understandable
3.3.2	Labels or Instructions	A	9.3.3.2	Understandable
3.3.3	Error Suggestion	AA	9.3.3.3	Understandable
3.3.4	Error Prevention (Legal, Financial, Data)	AA	9.3.3.4	Understandable
4.1.1	Parsing	A	9.4.1.1	Robust
4.1.2	Name, Role, Value	A	9.4.1.2	Robust

Table 2.3.3 *In-Depth Testing WCAG Criteria Mapping*

**It shall be noted that a single criterion can address multiple accessibility principles. Hence whilst this is not evident in the above mapping table, in some instances manual testing allowed for multiple principles to be tested for a single criterion. For instance, in criterion 1.1.1 Non Text Content, apart from the perceivable principle, any affected website content was also tested for operability and being understandable for all users.*

Automated Tools Used for In-Depth Website Testing

Where possible, a set of automated tools were used to assess different websites for any non-compliant criteria. Although these tests were carried out using automated tools, where applicable, manual assessment was still performed to confirm the results. *

**For more comprehensive results, where applicable, the assistive applications mentioned in the manual checks section were also used in combination with the automated tools mentioned in this section.*

a) Tota11y – The Tota11y toolbar helps visualize how a website performs with assistive technologies. The Tota11y set of plugins were used to test the criteria listed in *Table 2.3.4.*

WCAG Criteria	Criteria Name
1.1.1	Non-text content
2.4.1	Bypass blocks
1.4.3	Contrast (minimum)
2.4.4	Link purpose (in context)
2.4.6	Headings and labels

Table 2.3.4 *Criteria Tested Using the Tota11y*

b) WAVE - WAVE is a suite of evaluation tools that helps authors make their web content more accessible to individuals with disabilities. WAVE can identify many accessibility and WCAG errors, and also facilitates human evaluation of web content. WAVE was used to test the criteria listed in *Table 2.3.5.*

WCAG Criteria	Criteria Name
1.1.1	Non-text content
1.2.2	Captions (pre-recorded)
1.4.3	Contrast (minimum)
1.4.4	Resize text
2.4.1	Bypass blocks
2.4.2	Page titled
2.4.4	Link purpose (in context)
2.4.6	Headings and labels
3.1.1	Language of page
3.1.2	Language of parts
4.1.2	Name, role, value

Table 2.3.5 *Criteria Tested Using WAVE*

c) **Siteimprove Browser Extension –** The Siteimprove browser extension lets one check any multi-step form, dynamic content, or non-public page for accessibility issues. The Siteimprove browser extension was used to test the criteria listed in *Table 2.3.6.*

WCAG Criteria	Criteria Name
1.1.1	Non-text content
1.4.3	Contrast (minimum)

Table 2.3.6 *Criteria Tested Using the Siteimprove Browser Extension*

d) **WebAIM Colour Contrast Checker –** The WebAIM Colour Contrast Checker was used to determine if enough contrast is present between text colour and background colour. The Siteimprove browser extension was used to test the criteria listed in *Table 2.3.7.*

WCAG Criteria	Criteria Name
1.4.3	Contrast (minimum)

Table 2.3.7 *Criteria Tested Using the WebAIM Colour Contrast Checker*

e) **HTML Validator –** An HTML Validator was used to check the web pages' code for any web accessibility issues. The Siteimprove browser extension was used to test the criteria listed in *Table 2.3.8.*

WCAG Criteria	Criteria Name
4.1.1	Parsing

Table 2.3.8 *Criteria Tested Using an HTML Validator*

In-Depth Website Monitoring Manual Accessibility Checks

Most of the criteria listed in *Table 2.3.3* were tested using manual checks without making use of automated tools. Different assistive technology applications were used by the personnel at FITA to perform these checks. As per the Directive's recommendations, these manual checks also involved testing by persons with disabilities ensuring the testing correctly addresses their specific needs.

a) **JAWS –**JAWS is a screen reader developed for computer users whose vision loss prevents them from seeing screen content or navigating with a mouse. Using JAWS, persons with visual disabilities can navigate the Internet, write a document, read an email and create presentations.
b) **NDVA -** NVDA allows blind and vision impaired people to access and interact with the Windows operating system and many third party applications
c) **Keyboard Use –** Where applicable, the criteria were tested using the exclusive use of keyboard.

Table 2.3.9 lists the criteria which were manually assessed using one or more of the above mentioned assistive technologies without using automated tools.

WCAG Criteria	Criteria Name
9.2.2	Audio-only and video-only (pre-recorded)
9.2.4	Audio description or media alternative (pre-recorded)
9.2.5	Captions (live)
9.2.6	Audio description (pre-recorded)
9.2.7	Info and relationships
9.2.8	Meaningful sequence
9.2.9	Sensory characteristics
9.2.10	Use of colour
9.2.11	Audio control
9.2.14	Images of text
9.2.15	Keyboard
9.2.16	No keyboard trap
9.2.17	Timing adjustable
9.2.18	Pause, stop, hide
9.2.19	Three flashes or below threshold
9.2.22	Focus Order
9.2.24	Multiple ways
9.2.26	Focus visible
9.2.29	On focus
9.2.30	On input
9.2.31	Consistent navigation
9.2.32	Consistent identification
9.2.33	Error identification
9.2.34	Labels or instructions
9.2.35	Error suggestion
9.2.36	Error prevention (legal, financial, data)

Table 2.3.9 *Criteria checked manually only*

In-Depth Website Monitoring Targeted Disabilities

The assessed criteria as part of the in-depth website monitoring process aimed to target a wide range of disabilities. *Table 2.3.10* lists which disability each assessed criteria targeted. The amount of disabilities targeted for each criteria was only made possible by using a combination of automated and manual tests by persons with disabilities. As mentioned in *Subsection 2.3.2.II*, usability testing was also added on top of manual testing for a more comprehensive approach.

- V - Vision
- D - Deaf
- M - Mobility
- I - Intellectual
- H – Hidden

WCAG Criteria	**Criteria Name**	**V**	**D**	**M**	**I**	**H**
1.1.1	Non-text Content	X	-	X	-	-
1.2.1	Audio-only and Video-only (Pre-recorded)	X	X	X	-	-
1.2.2	Captions (Pre-recorded)	X	X	X	-	-
1.2.3	Audio Description or Media Alternative (Pre-recorded)	X	X	X	-	-
1.2.4	Captions (Live)	X	X	X	-	-
1.2.5	Audio Description (Pre-recorded)	X	X	X	-	-
1.3.1	Info and Relationships	X	-	X	-	-
1.3.3	Meaningful Sequence	X	-	X	-	-
1.3.3	Sensory Characteristics	X	X	X	-	-
1.4.1	Use of Colour	-	-	X	-	-
1.4.2	Audio Control	X	-	X	-	-
1.4.3	Contrast (Minimum)	X	-	X	-	-
1.4.4	Resize text	X	-	X	-	-
1.4.5	Images of Text	X	-	X	-	-
2.1.1	Keyboard	X	-	X	-	-
2.1.2	No Keyboard Trap	X	-	X	-	-
2.2.1	Timing Adjustable	X	-	X	X	-
2.2.2	Pause, Stop, Hide	X	-	X	-	-
2.3.1	Three Flashes or Below Threshold	X	-	X	-	X
2.4.1	Bypass Blocks	X	-	X	-	-
2.4.2	Page Titled	X	-	-	-	-
2.4.3	Focus Order	X	-	X	-	-
2.4.4	Link Purpose (In Context)	X	-	X	-	-
2.4.5	Multiple Ways	X	-	X	X	-
2.4.6	Headings and Labels	X	-	X	X	-
2.4.7	Focus Visible	X	-	X	X	-
3.2.1	On Focus	X	-	X	X	-
3.2.2	On Input	X	-	X	X	-
3.2.3	Consistent Navigation	X	-	X	X	-
3.2.4	Consistent Identification	X	-	X	X	-
3.3.1	Error Identification	X	-	X	X	-
3.3.2	Labels or Instructions	X	-	X	X	-
3.3.3	Error Suggestion	X	-	X	X	-

WCAG Criteria	Criteria Name	V	D	M	I	H
3.3.4	Error Prevention (Legal, Financial, Data)	X	-	X	X	-
4.1.2	Name, Role, Value	X	-	X	-	-

Table 2.3.10 *In-Depth Website Monitoring Disability Mapping*

III. In-Depth Mobile Application Monitoring Methods

The in-depth mobile application monitoring is mainly carried out using manual testing methods with the help of end-user assistive technologies. This is largely due to the fact that testing tools that can be used to assess mobile applications are not available at present and therefore, mobile applications testing is heavily based on manual testing. Whilst the monitoring method is carried out through extensive manual testing, the same criteria assessed using the in-depth website monitoring method are also assessed for the mobile applications. This approach ensures that all four accessibility principles as set in the requirements of *Article 4 of Directive (EU) 2016/2102* and the EN 301 549 standard are used as the basis for assessment. The criteria assessed in the mobile applications method are listed in *Table 2.3.3.*

Similarly to the in-depth websites monitoring method, the mobile applications monitoring method is carried out by the MCA with the support of FITA. As mentioned in *Subsection 2.3.1.II* FITA's role and experience within the accessibility sector proved to be very useful in assessing websites and mobile applications using manual methods.

Automated Tools Used for In-Depth Mobile Application Testing

The only automated tool used in this method is the Accessibility Scanner mobile application by Google. The Accessibility Scanner was used to check for contrast issues on mobile applications in an automated manner. This application is only available on Android devices, for iOS based systems, manual checks were used instead of this tool.

In-Depth Mobile Application Monitoring Manual Accessibility Checks

As per *Subsection 2.3.1.III,* the monitoring method for mobile applications is mainly carried out using manual tests with the help of assistive technologies.

a) **VoiceOver and Talkback –** The VoiceOver and TalkBack assistive tools are the native text to speech applications found on iOS and Android devices respectively. These tools are used as part of the manual testing process to ensure that the visual information and content found within the mobile application can also be communicated via text to speech applications or other assistive technologies.
b) **Bluetooth Keyboard –** An external Bluetooth keyboard is used to determine if the mobile application can function in the same way using an additional input device.
c) **Gesture functions in magnification mode –** The magnification feature found natively on mobile devices is used to test whether the mobile application is still usable in a magnified state.

The assistive technologies are applied to each assessed criteria, where applicable.

In-Depth Mobile Application Monitoring Targeted Disabilities

Since the same criteria are assessed using the in-depth website and mobile application monitoring methods, the same set of disabilities are also targeted through these criteria. Manual checks are used to replace the automated tools used in the website monitoring method and ensure the same number of disabilities were targeted for each criterion. *Table 2.3.10* lists which disability each assessed criteria targeted.

2.3.2 Testing Processes Checks and Usability Testing

I. Simplified Website Monitoring Processes

a) WCAG Criteria Testing – Using Siteimprove's accessibility checker tool as mentioned in *Subsection 2.3.1.I - Siteimprove Accessibility Checker Tool*, the MCA conducts automated tests on all of the websites in the simplified monitoring sample to check for non-conformities.

A sample of pages is taken from each public sector body website in the simplified monitoring sample for criteria testing. Each sample of pages consists as a minimum, of the below pages (where available);

- Home Page
- About Us Page
- Contact Us page
- Two or more second level pages found within the website.
- Where applicable, a PDF file found within the website.

The sample of pages for each website is assessed for WCAG non-conformities using Siteimprove's automated accessibility checker testing tools. For each page in the sample of pages, Siteimprove tests all the criteria listed in *Table 3.2.1.*

b) Accessibility Statement Compliance Checks - For each website in the simplified monitoring sample, a manual check is carried out to determine whether the public sector body being monitored has a WAD compliant accessibility statement. The manual accessibility statement check focused on the following areas of non-compliance;

- The accessibility statement is easily accessible from all the website pages.
- The accessibility statement provides suitable contact information.
- The accessibility statement is up to date.
- The accessibility statement contains the required information as mentioned in Article 7 of Directive (EU) 2016/2102.
    I. Accessibility non conformities have been clearly explained and where appropriate, the accessible alternatives provided.
    II. A description of, and a link to, a feedback mechanism enabling any person to notify the public sector body concerned of any failure of its website to comply with the accessibility requirements.
    III. A link to the enforcement procedure to which recourse may be had in the event of an unsatisfactory response to the notification or the request.
- The accessibility statement, where applicable, provides additional instructions related to any accessibility features or tools used within the website.

c) PDF File Assessment – Where applicable, the Authority also assesses PDF files for accessibility issues. Accessibility features related to document language, titles, headers, form elements, bookmarks and tags are checked through this process.

Following the simplified monitoring testing results for each website in the sample, a report highlighting the WCAG non-conformities and accessibility statement compliance is compiled by the MCA and forwarded to the respective public sector body. *Subsection 2.3.2.I - Simplified Website Monitoring Report Structure* outlines the structure of the report sent to the public sector bodies once their website is assessed.

Simplified Website Monitoring Report Structure

The simplified monitoring report sent to the public sector bodies is structured as per the following sections.

1. Executive Summary
2. Scope of Evaluation
3. Review Team
4. Accessibility Statement
5. Results and next steps
    1) Areas of compliance
    2) Areas of non-compliance
    3) Timeline for rectification of non-compliance
    4) Current level of compliance
6. Annex 1 – Output of Issues Report
7. Annex 2 – Description of WCAG criteria including suggested fixes for identified issues
8. Annex 3 – PDF File Assessment

Details on the simplified monitoring outcomes can be found in *Section 3* of this report.

II. In-Depth Website Monitoring Processes

a) WCAG Criteria Testing – As mentioned in *Subsection 2.2.3.II*, a combination of automated tests and manual checks are carried out to test the websites for WCAG criteria non-compliance using the in-depth method.

Both the automated and manual tests are based on a sample of pages from each website in the in-depth monitoring sample.

Each sample of pages consists of the following pages (where available) as specified in *Annex I, Subsection 3.2 of the COMMISSION IMPLEMENTING DECISION (EU) 2018/1524*;

- Home Page
- Login Page
- Sitemap
- Contact Us page
- Help Page
- Legal Information Page
- At least one relevant page for each type of service provided by the website
- Accessibility Statement Page
- A page having a substantially distinct appearance or presenting a different type of content
- A downloadable document related to the services being offered by the website.
- Other randomly selected pages for larger websites. *
- Other pages deemed to be relevant to the sample for this exercise.

**A larger sample of pages is taken for larger and more complex websites and based on the testers' experience, the in-depth monitoring processes is extended to other pages as required.*

b) Automated WCAG Criteria Testing – The automated testing process is carried out on each page in the sample using the tools as described in *Subsection 2.3.1.II* of this report.

c) Manual WCAG Criteria Testing – The manual testing process is carried out on each page in the sample using the methods described in *Subsection 2.3.1.II* of this report.

d) Additional Testing - The in-depth monitoring method, where possible and / or applicable, evaluates the user's journey in relation to the use of forms and other interactive dialogue objects to confirm that the expected prompts and feedback are in-line with website accessibility requirements.

e) **Usability Testing –** During the in-depth monitoring process, where applicable, in addition to the automated and manual tests, various usability considerations are made and assessed accordingly. Depending on the criteria being assessed, different accessibility aspects are included in the tests. *Table 2.3.11* lists these WCAG criteria and which usability considerations are taken for each instance.

WCAG Criteria	Criteria Name	Usability Consideration
1.1.1	Non-text Content	Text length
1.2.2	Captions (Pre-recorded)	Text legibility, quality and timing
1.3.1	Info and Relationships	Screen clutter
1.3.3	Sensory Characteristics	Timing and prominence
1.4.2	Audio Control	Ease of use
2.1.1	Keyboard	Menu length
2.2.1	Timing Adjustable	Ease of use
2.2.2	Pause, Stop, Hide	Ease of use
2.4.5	Multiple Ways	Ease of use
2.4.6	Headings and Labels	Mapping of content structure and relevance
3.2.3	Consistent Navigation	Conformity to user expectations

Table 2.3.11 *Usability Considerations*

f) **Accessibility Statement Compliance Checks -** For each website in the in-depth monitoring sample, a manual check is carried out to determine whether the public sector body being monitored has a WAD compliant accessibility statement or not. The manual accessibility statement checks for in-depth monitored websites follow the same process as defined in *Subsection 2.3.2.1*.

Following the in-depth monitoring testing results for each website in the sample, a report highlighting the non-conformities, accessibility statement compliance, usability feedback and other relevant feedback is compiled and forwarded to the respective public sector body. The below outlines the structure of the report sent to the public sector bodies once their website is assessed.

In-Depth Website Monitoring Report Structure

The in-depth website monitoring report sent to the public sector bodies is structured as follows:

1. Executive Summary
2. Scope of the assessments
3. Sample Pages/Functionality assessed
4. Summary and Rating
5. Identified issues as per EN 301 549
6. Infringements to Standard EN301549
7. Accessibility Statement
8. Timeline for rectification of non-compliance
9. Appendix A – Issues
10. Appendix B – Additional Feedback

Details on the in-depth monitoring outcomes can be found in section 3 of this report.

III. In-Depth Mobile Applications Monitoring Testing Processes

In-Depth Mobile Applications Monitoring Testing Processes

a) **WCAG Criteria Testing –** The sample of pages (screens) used for the in-depth mobile application monitoring consists of the same or similar pages as specified in Subsection 2.3.2.II. Extensive manual work is involved in this case to test the criteria as detailed in section 2.3.2.II.
b) **Usability Testing –** During the in-depth mobile applications monitoring process, where applicable, in addition to the automated and manual tests, various usability considerations are made and assessed. Depending on the criteria being assessed, different accessibility aspects are included in the tests. *Table 2.3.12* lists these WCAG criteria and which usability considerations are taken for each instance.

WCAG Criteria	Criteria Name	Usability Consideration
1.1.1	Non-text content	Text length
1.4.2	Audio control	Ease of use
2.1.1	Keyboard	Menu length
2.2.1	Timing adjustable	Ease of use
2.2.2	Pause, stop, hide	Ease of use
2.4.5	Multiple ways	Ease of use
2.4.6	Headings and labels	Mapping of content structure and relevance
1.2.2	Captions (pre-recorded)	Text legibility, quality and timing
3.2.3	Consistent navigation	Conformity to user expectations
3.2.4	Consistent identification	Icon /button labels, placement, size and function
1.3.1	Info and relationships	Screen clutter
1.3.3	Sensory characteristics	Timing and prominence

Table 2.3.12 *Usability Considerations*

Accessibility Statement Compliance Checks

For each mobile application in the in-depth monitoring sample, a manual check is carried out to determine whether the mobile application being monitored has a WAD compliant accessibility statement or not. The manual accessibility statement checks for in-depth monitored mobile applications follow the same process as defined in *Subsection 2.3.2.1*.

In-Depth Website Monitoring Report Structure

The same reporting structure as listed in *Subsection 2.3.2.II, In-Depth Website Monitoring Report Structure* is used for mobile applications.

Details on the in-depth monitoring outcomes can be found in *Section 3* of this report.

3. OUTCOME OF THE MONITORING

3.1. Detailed outcome

Each monitoring method provides distinct outcomes which also provide valuable insight into the current level of accessibility within the public sector bodies' websites and mobile applications. By referring to the WCAG Guidelines, it is easier to identify areas which were accessible and others which required further improvement when it comes to accessibility features and best practises.

When considering the simplified monitoring method, most public sector bodies did not have issues which rendered the websites totally inaccessible. In most cases the websites were found to have frequent albeit minor non-conformities.

It is to be noted that even prior to the introduction of the WAD, the Government of Malta has for some years been advocating for the procurement and use of accessible technologies. This may have contributed to the relatively good posture related to website accessibility in the public sector.

The websites assessed through the in-depth monitoring method showed some similarities to the websites assessed using the simplified monitoring method, however the criteria which benefited from manual assessments, related in particular to context, were more evident. A small number of these websites were in fact found to have a poor level of accessibility. This was mostly attributed to the underlying website platform being outdated. The details on the common non-compliant criteria for websites can be found in *Subsection 3.1.1.II* and *Subsection 3.1.2.II*.

Through the MCA's direct contact with the public service entities particularly following a website assessment, it was observed that a few, typically smaller entities, lacked the required human resources needed to maintain an accessible website. In other instances, websites which had been developed in the past and had a change in ownership, were also found to have an increased amount of non-conformities particularly related to content. These issues were observed and discussed with the affected entities.

Some criteria were rarely flagged in the monitoring outcome reports since they are related to content which was not found within the assessed website or mobile application. For example, criteria which relate to audio content and video content could not be assessed since this type of content is not normally used within the assessed websites or mobile applications.

Accessibility statement compliance was observed to be similar for websites assessed using the simplified and in-depth monitoring methods. On the other hand, none of the assessed mobile applications to date had a fully compliant accessibility statement.

3.1.1 Simplified Website Monitoring Outcomes

I. WCAG Criteria Compliance Outcomes

In order to analyse the outcomes of the websites using the simplified monitoring method, data from the assessed websites using Siteimprove was collected and compiled into a table. Through Siteimprove's web accessibility checker it was also possible to analyse the individual errors and warnings which caused the WCAG criteria to be non-compliant.

II. Frequent Non-Compliant WCAG Criteria

A number of criteria were observed which have a high percentage of non-compliance across the sample of assessed websites. The most notable criteria which included frequent non-compliance issues are listed in *Table 3.1.1*. These criteria were found to be non-compliant in 60% or more of the assessed websites.*

**Both errors and warnings were included.*

WCAG Criteria	WCAG Criteria Name	Percentage
1.4.3	Contrast (Minimum)	89%
2.4.1	Bypass Blocks	88%
1.3.1	Info and Relationships	80%
3.3.2	Labels or Instructions	77%
4.1.2	Name, Role, Value	74%
2.4.4	Link Purpose (In Context)	71%
4.1.1	Parsing	62%

Table 3.1.1 Frequent Simplified Monitoring Non Compliance Criteria.

Table 3.1.1 does not include data related to websites assessed during Q4 2021 due to time constraints in relation to the drafting and publication of this report.

a) **Contrast (Minimum) –** Colour contrast was the highest observed non-compliant WCAG criteria across the assessed websites. Contrast errors seemed to be frequent due to the lack of awareness regarding accessibility and the recurring use of colour across a website to identify certain areas in a visual manner. Contrast errors were most commonly identified in text areas, headings, titles and links. In most cases, the contrast errors were caused by colours which followed the public sector body's chosen colour scheme.
b) **Bypass Blocks –** The bypass block warning was present on a high number of websites. Most of the websites assessed did not have options to skip repeated content or any other means how to navigate content such as correctly implemented headings.
c) **Info and Relationships –** The info and relationships criteria was not achieved by a large number of public sector bodies due to a variety of errors and warnings.

   The most common errors observed were;

   - Using changes in text presentation to convey information without using the appropriate mark-up or text;
   - Incorrectly associating table headers and content via the headers and ID attributes;

- Use of role presentation on content which conveys semantic information; and
- Using structural mark-up in a way that does not represent relationships in the content.

Warnings related to ambiguous labels, and unlabelled content were also observed frequently.

d) Labels or Instructions – Similarly to the info and relationships criteria, a large number of websites failed to have appropriately labelled controls. The most common errors observed were related to input fields and select boxes. A few websites had errors related to field visibility and form elements grouping.

e) Name, Role, Value – Where controls were present, it was observed that a large number of websites failed to properly implement accessibility measures. The most common error was due to the controls not being labelled appropriately or iFrames missing titles. The majority of websites which did not achieve this criterion also had warnings related to redundant WAI-ARIA attributes.

f) Link Purpose – Links are another common element found within a website similarly to use of colour. It was observed that a large number of websites failed to have accessible links. Based on feedback received from the public sector bodies, it seems that there is a lack of awareness regarding links accessibility. The most common accessibility failures included link text being used for multiple different destinations and image links missing alternative text.

g) Parsing – A large number of websites had elements whose ID was not unique, which shortcoming was observed repeatedly. It is worth noting that in some cases, the element ID errors were related to third party plug-ins or CMS add-ons used within the website.

III. Accessibility Statement Testing Outcomes

Through the accessibility statement checks it was observed that the majority (58%) of public sector body websites assessed did not have an accessibility statement. 42% of the websites had an accessible statement although only 32% had a fully compliant accessibility statement. Common issues with accessibility statement non-compliance included incorrect or missing information, and the location of the accessibility being hard to locate or access. *Table 3.1.2* outlines the outcomes of the accessibility statement checks for simplified monitoring.

Accessibility Statement Check Outcome	Percentage of non-compliant websites
Accessibility statement not found	58%
Compliant accessibility Statement	32%
Non-compliant accessibility statement	7%
Accessibility Statement not easily accessible	3%

Table 3.1.2 Accessibility Statement Check Outcome.

Table 3.1.2 does not include data related to websites assessed during Q4 2021 due to time constraints in relation to the drafting and publication of this report.

IV. Measurement data

The websites assessed using the simplified monitoring method were each awarded an accessibility score reflecting the results of the tests and checks carried out. A maximum of 80% of the score was awarded for WCAG criteria conformity, whilst a maximum of 20% was awarded for accessibility statement compliance.

a) WCAG Criteria Conformity – The WCAG criteria conformity was scored using Siteimprove's accessibility checker's weighting system. For each criterion listed in *Table 2.3.1*, a score was awarded based on the number of WCAG errors and warnings found. Siteimprove's accessibility checker makes a distinction in score weighting between errors and warnings to distinguish between WCAG success criteria and best practices. Errors are issues which have been automatically determined to be failures that do not achieve the success criteria in WCAG, whilst warnings are issues which have been automatically determined to be failures not in line with best practices in WCAG. The total Siteimprove score for WCAG AA non conformities was adjusted to be reflected in a percentage score between 0% and 80% for each public sector body website.

b) Accessibility Statement Compliance – Based on the findings of the accessibility statement compliance checks, a score between 0% (no accessibility statement found) and 20% (fully compliant accessibility statement) was awarded. Where an accessibility statement was available within the website being monitored and it failed to meet one or more of the criteria mention in *Subsection 2.3.2.I,* a lower score was awarded accordingly.

The overall simplified website accessibility score was included in the monitoring outcomes report sent to the public sector body.

3.1.2 In-Depth Website Monitoring Outcomes

I. WCAG Criteria Compliance Outcomes

In order to analyse the outcomes of the websites using the in-depth monitoring method, data from the assessed websites using both automated tools and manual testing were collected and compiled into a table. Due to the complexity of in-depth monitoring method which included a combination of automated and manual testing processes, the websites typically scored less in criteria related to usability. Moreover since in-depth monitoring was handled mainly by persons with disability, the MCA allowed for a degree of subjectivity in this method to ensure that the needs of the said persons are captured and reflected in the method as much as possible.

In-depth manual testing also allows the MCA to cater for false positives that are typically encountered during simplified testing. Any automated testing tool is bound to produce a number of false positives which the MCA aims to mitigate in simplified monitoring and eliminate or at the very least avoid, in in-depth monitoring.

II. Frequent Non-Compliant WCAG Criteria

Several criteria were observed which have a high percentage of non-compliance across the sample of assessed websites. The most notable criteria which included frequent non-compliance issues are listed in *Table 3.1.3.*

WCAG Criteria	WCAG Criteria Name	Percentage of non-compliant websites
1.4.3	Contrast (minimum)	95%
1.1.1	Non-text content	89%
2.4.4	Link purpose (in context)	78%
2.4.6	Headings and labels	72%
2.1.1	Keyboard	44%
1.3.1	Info and Relationships	25%

Table 3.1.3 Frequent In-Depth Non Compliance Criteria.

a) **Contrast minimum -** Colour contrast was the highest observed non-compliant WCAG criteria across the assessed websites. Contrast errors seemed to be frequent due to the lack of awareness regarding accessibility and the recurring use of colour across a website to identify certain areas visually. Contrast errors were most commonly identified in text areas, headings, titles and links. In most cases the contrast errors were caused by colours which follow the public sector body's chosen colour scheme.
b) **Non-text content –** Accessibility issues related to non-text content were present across the majority of websites assessed. The most common accessibility failure were images not having alternative text or having incorrect alternative text. Based on feedback received from the public sector bodies, it seems that there is a lack of awareness regarding images and other non-text content accessibility.
c) **Link purpose -** Links are another common element found within a website similarly to use of colour, it was observed that a large number of websites failed to implement accessible links. Based on the feedback received from the public sector bodies, it seems that there is a general lack of awareness regarding links accessibility. The most common accessibility failures

included link text being used for multiple different destinations and image links missing alternative text.

d) **Headings and labels –** Throughout the in-depth assessment method, it was observed that a significant number of websites do not make use of descriptive headings. For in-depth assessments, this criterion is considered mostly for checking for the presence of HTML headings. See point f below re. criteria 1.3.1 which is also related.

e) **Keyboard –** Almost half the assessed websites were not accessible when making use of a keyboard. Common accessibility limitations included:
   - Menu items not being navigable using keyboard;
   - Keyboard Navigation not being highlighted; and
   - Website features requiring use of pointing devices.

f) **Info and Relationships –** This criterion is used to check for structure based on how the data is being presented. During in-depth assessment, it was observed that heading text is rarely meaningless, whereas other aspects within the context being presented still helped users to infer the website's structure. Hence whilst this criterion was not successful in simplified or automated testing, it did not normally affect manual testing and testers typically still managed to comprehend the content that was being presented.

III. Accessibility Statement Testing Outcomes

Through the accessibility statement checks, it was observed that almost half (46%) of public sector body websites assessed did not have an accessibility statement. 42% of the websites had an accessible statement, although only 21% had a fully compliant accessibility statement. 32% of the assessed website had an accessibility statement which was hard to locate or access. *Table 3.1.4* Accessibility Statement Check Outcome outlines the outcomes of the accessibility statement checks for in-depth monitoring.

Accessibility Statement Check Outcome	**Percentage of non-compliant websites**
Accessibility statement not found	46%
Compliant accessibility Statement	21%
Non-compliant accessibility statement	0%
Accessibility Statement not easily accessible	32%

Table 3.1.4 Accessibility Statement Check Outcome.

IV. Measurement data

The websites assessed using the in-depth monitoring method were each awarded an accessibility score reflecting the results of the tests and checks carried out. A maximum of 80% of the score was awarded for WCAG criteria conformity, whilst a maximum of 20% was awarded for accessibility statement compliance.

a) **WCAG Criteria Conformity and Usability Testing Score –** The WCAG criteria conformity was scored using a combination of automated tools, manual testing and usability checks. The scoring methodology outlined in this section was used to quantify the severity of the issue and multiple occurrences across a public sector body website into a single value. For each criterion listed in *Table 2.3.2,* a WCAG non-conformity count was assigned as part of the scoring method. Each WCAG non-conformity count was calculated manually based on the WCAG errors, WCAG warnings and usability issues found when assessing the website. WCAG non-

conformities which were found to cause substantial accessibility issues and site wide usability issues, were given increased weighting in this scoring method. The total WCAG non-conformity count and usability rating was adjusted to be reflected in a percentage score between 0% and 80% for each public sector body website.

b) Accessibility Statement Compliance – Based on the findings of the accessibility statement compliance checks, a score between 0% (no accessibility statement found) and 20% (fully compliant accessibility statement) was awarded. In the event where an accessibility was available within the website being monitored however it failed to meet one or more of the criteria mention in Subsection *2.3.2.II,* a lower score was awarded accordingly.

In the event where accessibility limitations or usability issues were observed which were not directly reflected in the WCAG criteria conformity and usability testing score, manual adjustments were made to the final score. As indicated above, the in-depth monitoring method allowed for a greater level of subjectivity when compared to the simplified method. This was carried over to the scoring methodology whereby the MCA wanted to ensure that the score is based, amongst others, on the experience of the tester and not just on absolute numbers which may not translate as effectively in real world website use. The overall in-depth website accessibility score was included in the monitoring report sent to the public sector body.

3.1.3 In-Depth Mobile Applications Website Monitoring Outcomes

I. General Outcomes

Most assessed mobile applications were found to be fairly usable with the help of various assistive technologies, however a number of shortcomings were also present. The main issue observed throughout the assessment of mobile applications was lack of consistency whereby in most cases, accessibility features such as accessible headings and labels were present on some of the pages but not on others. Similar issues related to form buttons were also observed. The inconsistency of accessible features made it difficult to navigate and make effective use of the mobile applications particularly by persons with disabilities. Other issues which were observed across the mobile applications assessed, although less common, were inaccessible links and minor contrast issues.

A small number of issues were observed which related to specific feature/s of the mobile application being assessed. These included:

a) List items not properly named or numbered;
b) Loading screens without the proper descriptions; and
c) Misleading icons and buttons – this issue was observed both as a labelling issue and as a functional issue.

II. WCAG Criteria Compliance Outcomes

Due to the low number of mobile applications assessed during this initial monitoring period, meaningful additional data could not be extracted with regards to common WCAG compliance issues.

III. Accessibility Statement Testing Outcomes

None of the mobile applications assessed to date featured an accessibility statement. This may be linked to the small number of assessments carried out to date. Conversely, it is also possible that some entities are not yet aware that mobile applications also require the same level of accessibility as websites. This is expected to improve over time similarly to website based accessibility statements.

IV. Measurement data

The mobile applications assessed as part of the in-depth monitoring method are each awarded an accessibility score using the in-depth scoring method detailed in *Subsection 3.1.2.IV.* Whilst the same assessment method is used for the in-depth websites and mobile applications, the actual assessment process on mobile applications was different and more based on manual testing. This is mostly due to the lack of assessment technologies that are available at present which meant that the mobile apps have to be assessed in a quasi-fully manual manner. To support this manual process, assistive technologies, accessibility checking tools used and manual usability checks which are specific to mobile applications, are used as mentioned in *Subsection 2.3.1.III* when and as applicable.

3.1.4 Scoring Outcomes

Based on the scoring methods mentioned above, an accessibility score for each assessed website and mobile application is calculated. The average accessibility score for the simplified website monitoring method for this monitoring period is **73%,** whilst the average accessibility score for the in-depth website monitoring method is of **70%**. The average accessibility score for in-depth mobile applications is **60%.**

The MCA also performs a subsequent re-score of the assessed websites and mobile apps will also be re-scored in short order. Further information on this re-scoring process and outcome is detailed in Section 3.3.

This accessibility score is used as an easy-to-refer-to mechanism that allows the MCA and the public sector bodies concerned to monitor their progress in rectifying the issues as identified in the assessment report in a timely manner.

3.2. Additional content

3.2.1 Observations in different technologies used

I. Website Monitoring

Throughout the website monitoring processes for both the simplified and in-depth monitoring methods, various elements related to be website's structure and backend design were observed. Websites using up to date versions of CMS were frequently found to have accessible templates, although it was common for websites to have accessibility issues due to any customizations that were performed. Third party website plug-ins added on top of the CMS template were also often found to have accessibility issues. In some occurrences it was not technically possible to make third party plug-ins accessible due to the underlying code not being owned by the public sector body.

A small number of websites chose to include accessibility overlays such as magnification tools and colour modification options being the most popular. In general, the Authority discouraged the use of such tools since whilst such tools could aid users with specific disabilities, it was often found that these tools were not accessible towards other disabilities and lacked proper documentation or usage instructions in the accessibility statement. The public sector bodies were given guidance on how to make such tools more accessible when they are going to be used.

In some instances, a large number of accessibility issues were present due to outdated technologies being used by the websites. For instance, a number of public sector websites were developed on an outdated Microsoft SharePoint 2013 platform with minimal considerations towards accessibility. Nonetheless through the website monitoring process, various accessibility issues were identified and successfully addressed accordingly.

Results from websites which were heavily reliant on custom code by third party developers were varied. In some instances, accessibility was considered from the first stages of the website development life cycle which resulted in highly accessible websites, however in some other cases accessibility features were minimal. The majority of public sector bodies welcomed the monitoring results and performed the required accessibility changes with the help of their third party developers.

II. Mobile Apps Monitoring

Due to the low number of mobile applications assessed during this monitoring period to date, no observations were made pertaining to a particular technology.

3.2.2 Lessons learnt from the feedback sent by the monitoring body

I. Accessibility Knowledge and Feedback

The Authority personnel working on the Directive significantly improved their web accessibility knowledge through the monitoring methods and specific processes applied during first monitoring period. Although various challenges were present at the start of the monitoring period, the Authority strived to create a monitoring approach which was both fair and comprehensive. Through frequent use of the accessibility tools used and manual checks, recurring accessibility issues have become easier to identify by the Authority. The monitoring outcome report which outlines the compliance of each public sector body provided valuable insight into the individual accessibility criteria and their requirements in an easy-to-read manner. Over time Authority personnel also became conversant with various underlying technologies used by the public sector bodies to develop websites.

When communicating with the public sector bodies as part of the notification processes and to address any queries or gaps in the monitoring outcomes reports, the Authority was able to gain a better understanding of web accessibility from the public sector bodies' perspective. Limitations such as budget considerations, pre-existing templates, changes in website ownership and lack of human resources were frequently discussed. Feedback received from the public sector bodies with regards to the monitoring processes and outcome reports was welcomed by the Authority and where possible, amendments were made to facilitate or improve relevant areas of the monitoring methods.

It is worth noting that the Authority established and maintained a healthy and open relationship with the public sector bodies in terms of website accessibility as all Ministries and the public bodies falling thereunder embraced the initiative and provided the required support.

3.2.3 Monitoring Re-Scoring Process

As outlined in Section *3.1.4*, each public sector body is awarded an accessibility score during the monitoring process and this score is included in the monitoring outcomes report. The public sector bodies are expected to improve their website accessibility posture in a timely manner that does not normally exceed six months.

During the allocated period of time, the MCA replies to any queries in relation to the gaps identified in the outcomes report. When responding to clarifications from public sector bodies following their review of the outcomes report, other software testing tools are also used as and if required. These tools include the WebAim WAVE tool, WebAim contrast Checker and AChecker.

To monitor the progress of the public sector bodies in rectifying the issues, the MCA re-checks all the assessed websites after six months from the publication of the monitoring outcomes report, and the score is revised accordingly. Following the re-scoring process for this monitoring period, the public sector bodies which were assessed using the simplified website method increased their accessibility score from an average of 73% to an average of **81%,** whereas those assessed using the in-depth website method achieved an average of **87%** from an average of 70%. The mobile applications have not been re-scored yet since six months have not yet elapsed from the report date.

3.2.4 Disproportionate Burden

To date no public sector body has availed itself of the Disproportionate Burden Clause as per Article 5 of the Directive. Nevertheless, the MCA has planned for this eventuality by leveraging the existing ToRB that is already established within the CRPD. This allows the MCA to tap into the existing expertise that is present within the CRPD ensuring a fair approach if this clause is availed of by a public sector body.

This structure is also governed within an MoU that the MCA has signed with the CRPD.

4. USE OF THE ENFORCEMENT PROCEDURE AND END-USER FEEDBACK

4.1 Feedback Mechanisms

The MCA makes use of the following feedback mechanisms to receive complaints related to public sector website and mobile application accessibility non- conformities.

4.1.1 Email and Telephone Complaints

The MCA accepts complaints through email and telephone channels.

a) Email Complaints – A dedicated shared mailbox was set up and used to receive email complaints related to website and mobile apps accessibility. This mailbox is monitored by the Authority's web accessibility team; and

b) Telephone Complaints – The Authority's web accessibility team accepts telephone complaints through the publicly available MCA telephone number.

Through the monitoring procedures, assessed public sector bodies are directed to include both the shared mailbox address and MCA telephone number in their accessibility statement as mechanisms to report any website accessibility non-conformities.

4.1.2 Public Sector Website Accessibility Complaint Form

In order to facilitate further the end-user feedback process, the MCA created an online complaint form through which end users can notify the Authority of any public sector website or mobile application which fails to meet the required accessibility standards as required by the Directive.

The public sector website accessibility complaint form is made publicly available on the MCA website at Link to MCA Accessibility Complaint Form.

Through the monitoring procedures, the assessed public sector bodies are directed to include a description of this feedback mechanism and a link to the public sector website accessibility complaint form in their accessibility statement as per the requirements in Article 7(1)(b) of the Directive. The form submissions are monitored by the internal web accessibility team at the MCA.

4.1.3 Complaints received through other channels

I. Complaints received by the CRPD

As part of an MoU established between the CRPD and the MCA, any complaints related to web accessibility received by the CRPD are duly forwarded to the MCA. In the event where the CRPD receives a complaint in the form of a telephone call or email, it is forwarded to the MCA for further investigation.

4.2 Enforcement Procedure

The MCA attempts to resolve any complaints that it receives through the various channels first by notifying the concerned public sector body of the relevant website accessibility complaint and proposing a rectification process. The public sector body is required to rectify the accessibility issue within a reasonable timeframe set by the Authority. The timeline is set based on the severity and impact of the accessibility issue.

In the case of continued non-compliance, the Authority adopts the enforcement procedure as per the applicable national legislation as provided for in the 'Accessibility of the Websites and Mobile Applications of Public Sector Bodies Regulations' as per SL 418.03 of the Laws of Malta (hereafter 'SL418.03').

More specifically reference is being made to the following regulations as per SL 418.03 which detail the procedure followed:

*'**11.** (1) Subject to the provisions of regulation 9(6), where a public sector body does not comply with any of its obligations pursuant to these regulations, then the Authority may in the first instance publish the name of the public sector body and the decision of the Authority taken pursuant to regulation 9(5) in any such manner as it considers appropriate in the circumstances.*

(2) If notwithstanding the compliance measure taken by the Authority under sub-regulation (1), the public sector body still fails to comply with the decision of the Authority, then the Authority may, if such a decision has not been appealed by the public sector body, impose an administrative fine not exceeding twenty thousand euro(€20,000):

Provided that before proceeding to impose any such fine the Authority shall write to the non-compliant public sector body warning it of the fine that may be imposed, the reasons there for, giving that public sector body a period of seven (7) days in which to make its written submissions. The Authority shall then proceed to decide whether to impose a fine and if it decides to impose a fine the amount thereof. In doing so the Authority shall state its reasons there for.

(3) For the purposes of these regulations the Authority may when undertaking a compliance measure which includes the publication of a decision, at its discretion publish only a summary consisting of the salient points of its decision such as it may consider appropriate in the circumstances.

***12.**(1) The public sector body concerned or the complainant as the case may be, may lodge an appeal before the Tribunal from a decision of the Authority issued pursuant to these regulations.*

(2) The effects of a decision by the Authority which is appealed from shall not, except where the Tribunal or the Court of Appeal, as the case may be, so orders, be suspended by virtue of the appeal:

Provided that any administrative fine imposed by the Authority shall not apply until the public sector body on whom the administrative fine is imposed has exhausted the right of appeal that it may exercise in accordance with these regulations, or if the public sector body to whom the

decision is addressed has permitted the applicable time-limits to contest such a fine expire without availing itself of the said right of appeal.

13.*(1) Where the Authority exercises its powers pursuant to these regulations, the decision of the Authority shall forthwith be served on the public sector body to whom the decision is addressed and on the complainant, as the case may be, either by registered post to the official address of the public sector body and to the last known business or private address of the complainant, or by electronic means that provide a reliable record of when service took place.*

(2) In the case of service by electronic means, the decision shall be deemed to have been served upon the public sector body to whom the decision is addressed, and on the complainant as the case may be, when the Authority has received:

(a) an electronic receipt automatically generated by the e-mail server when the communication is read; or

(b) a written confirmation by return electronic mail from an employee of the public sector body to whom the decision is addressed, and from the complainant as the case may be.

(3) If service is not effected within a week of issuing the decision for any reason attributable to the public sector body to whom the decision is addressed, or to the complainant as the case may be, the Authority shall publish a notice in the Gazette and in one or more daily newspapers, stating that a decision has been taken in respect of the public sector body to whom the decision is addressed, or the complainant as the case may be, and inviting it or him to collect the decision from the Authority. In any such case, service shall be deemed to have been effected on the third day after the date of publication of the last notice.'

5. CONTENT RELATED TO ADDITIONAL MEASURES

5.1 Mechanisms for consulting with Web Accessibility stakeholders

5.1.1 Web Accessibility Focus Group

The MCA's main mechanism for consulting with web accessibility stakeholders revolves around the Authority's interaction with the Web Accessibility Focus Group. This Focus Group is managed by the CRPD and to govern this relationship, the MCA established an MoU with the CRPD early on during the transposition of the Web Accessibility Directive into national law.

Amongst others, this MoU defines the Focus Group's composition which is made up from persons from various NGOs that work in the disability sector including the ODI, ADHD Support Malta and the Deaf People Association amongst others. This group is consulted on pertinent issues related to web accessibility as well as to provide feedback and insight on subjects related to persons with disabilities and the Web Accessibility Directive processes. A representative from FITA is also part of the web accessibility focus group. FITA's experience in digital accessibility has proven to be very important to the MCA in the implementation of the Directive, thus an on-going communication channel has been established.

5.1.2 Public Awareness Initiatives

The MCA makes use of its social media pages and website to inform the general public of any changes or developments in web accessibility for the public sector. Any changes or updates to the standards and processes being adopted by the Authority as part of the web accessibility directive are published through the mentioned channels above. Changes to the procedures related to the implementation of the web accessibility directive including monitoring, reporting and enforcement are also made public through these channels.

To ensure conformity between the different channels, the Authority publishes news items on the MCA website which are then shared on the various social media pages belonging to the Authority. Other Web Accessibility stakeholders such as the CRPD and FITA also share these news items to widen the audience as much as possible.

5.2 Training and Awareness Raising Activities

5.2.1 Training Activities

To assist website owners, designers and developers to better understand what is normally required to meet the W3C WCAG criteria, a number of "Essential Guides" were compiled that aim to simplify further the WCAG criteria requirements and as much as possible, ensure that even non-technical personnel may comprehend what is needed to create an accessible website. Using these guides, website administrators and content administrators are also able to better understand WCAG criteria and communicate more effectively with technical third parties when making their websites more accessible. The Web Accessibility Essential guides also make clear the shared responsibility between all website stakeholders towards Digital Accessibility.

The Web Accessibility Essentials guides all follow a common, easy to read format as follows:

- The accessibility issue they are addressing.
- Background information on the issue at hand.
- Implementation information to rectify the issue coupled with examples when applicable.
- References to the related WCAG criteria.
- Links to best practices and further information.

The topics of the Web Accessibility Essentials guides were determined based on the most common WCAG non-conformities observed during the monitoring processes. As of December 2021, the Web Accessibility Essentials topics which are publicly available include;

I. Accessible Headings
II. Accessible Images
III. Correct Use of Colour
IV. Correct Use of Links

As part of its on-going monitoring procedures, should the MCA observe that public sector bodies are repeatedly failing the same WCAG criteria, guides relating to these criteria will be included in future Web Accessibility Essentials. The MCA also welcomes any feedback and encourages interested parties to propose further Web Accessibility topics that should be included.

The Web Accessibility Essentials guides are advertised though the MCA's Facebook page and are hosted on the Authority's website at Link to MCA Accessibility Essentials .

5.2.2 Awareness Raising Activities

The MCA organises several awareness raising activities in parallel with its monitoring and enforcement procedures. These awareness raising activities are primarily targeted at the general public to provide information related to the Web Accessibility Directive's implementation and Digital Accessibility in general.

I. Accessibility Social Media Public Relations Campaign

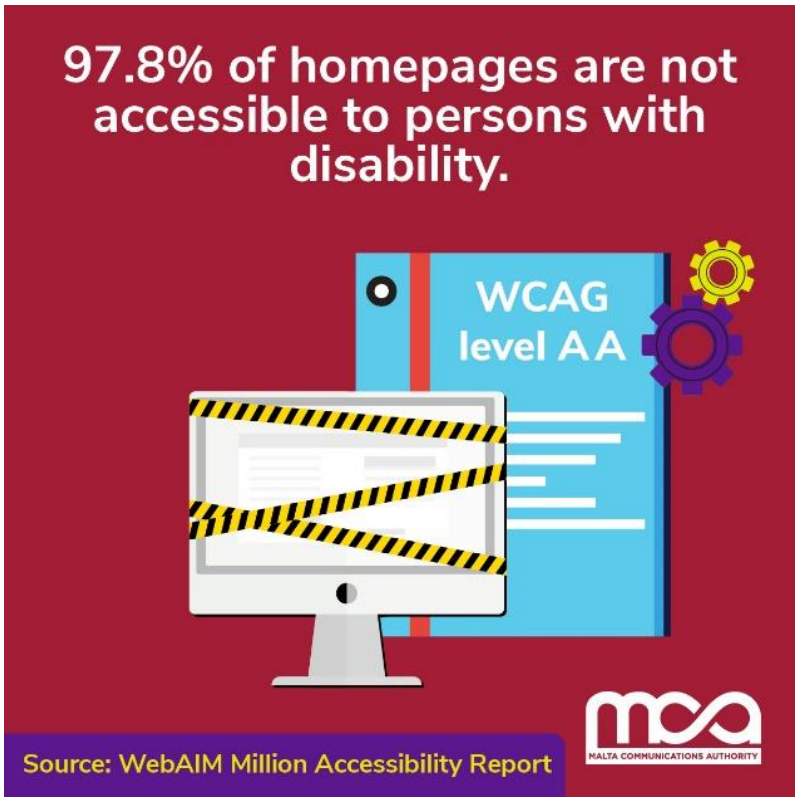
In 2020, a PR campaign was initiated by the MCA to reach the general public in an efficient manner. Facebook was identified as the main social media platform on which the PR campaign would be based on. At the start of the PR campaign, the MCA Facebook page had over 11,000 likes. Other social media channels belonging to the Authority were also used to share the Facebook posts.

The first part of the PR campaign focused first on Digital Accessibility topics such as the need for Digital Accessibility, different types of disabilities and how Digital Accessibility can be beneficial towards each disability, the Importance of an Accessibility Statement and statistics related to Digital Accessibility were all highlighted in these posts. The second part of the PR campaign shifted the focus towards the Authority's implementation of the Web Accessibility Directive which included topics such as: the Directive's impact on local websites, highlights on the Authority's work including a high level overview of the number of planned assessments and links to relevant documents on the MCA website.

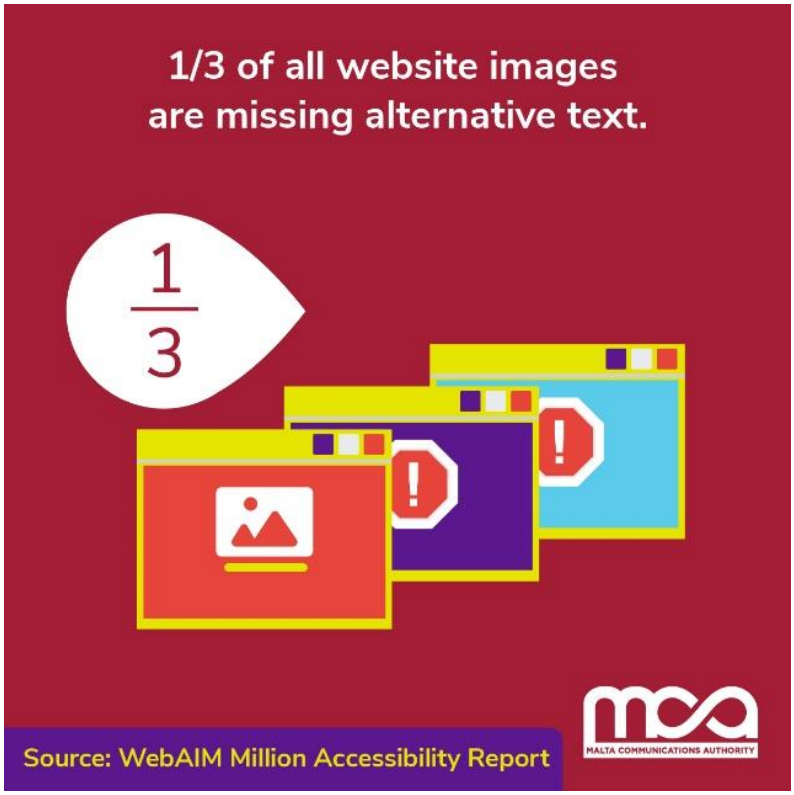
In order to communicate more effectively the content of each post, a set of infographics were commissioned to accompany each post. Below is a sample of the information presented and infographics used.

The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect. – Tim Berners Lee

97.8% of homepages are not accessible to persons with disability. Source: WebAIM Million Accessibility Report.



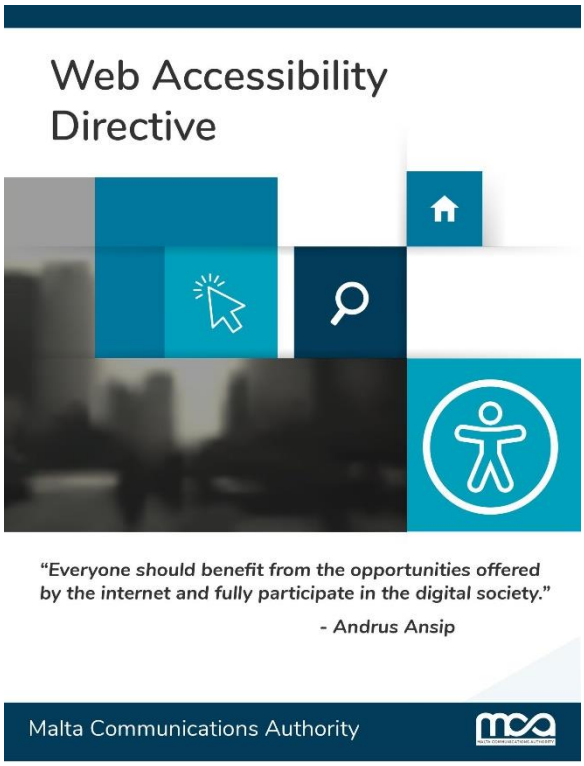
1/3 of all website images are missing alternative text.

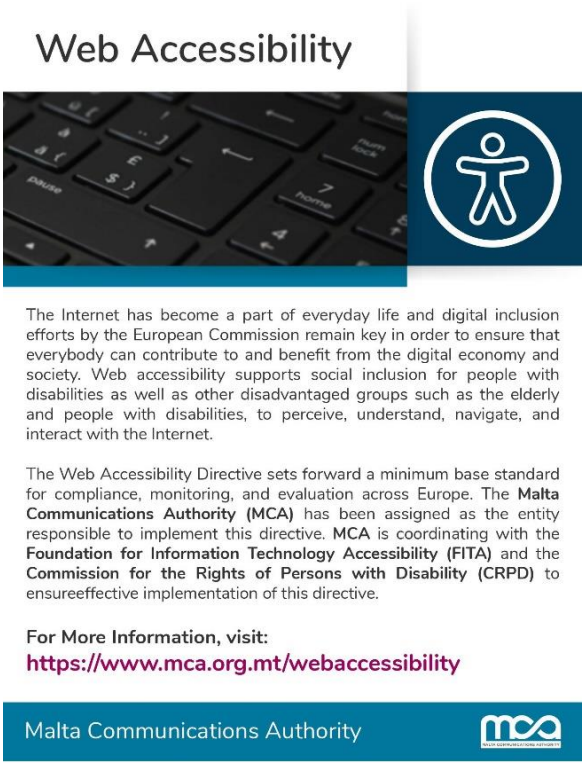


An accessibility statement shows the organisation's commitment to inclusivity.

II. Accessibility Flyers

In 2020, the MCA created a set of physically printed flyers highlighting how the Web Accessibility Directive will improve Digital Accessibility in Malta. These flyers were distributed to public sector bodies which operate within the disability sector and Local Councils.





III. Malta Communications Authority's (MCA) 20th Anniversary Conference

In November 2021, the MCA held its 20th Anniversary Conference over one full day, with the theme "Unlocking Digital Value for Society". The event was delivered in a hybrid format, including both physical and virtual participation and featured a line-up of high-profile international and local speakers. For the event, the MCA organised two sessions specifically focused on Digital Accessibility;

- A keynote presentation titled "Best Practises for Website Accessibility"
- A panel discussion focusing on the need for Digital Accessibility in today's world

The event ensured physical accessibility was provided at the venue where it was held whilst the whole day's event was supported by live speech to sign language interpretation.

A full recording of the MCA 20th Anniversary Conference may be found at Youtube link to MCA 20th Anniversary Event.