



# ACCESSIBILITY EVALUATION REPORT

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# GLOSSARY

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**GUIDELINE SET:** set composed of one or more guidelines.

**GUIDELINE:** it expresses general concepts about the accessibility of Web pages and it is composed of one or more criteria (for example, "Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language").

**CRITERION:** it specializes concepts from a guideline, focusing on a particular aspect of the Web pages and it is composed of one or more checkpoints, (for example, "All non-text content that is presented to the user has a text alternative that serves the equivalent purpose").

**CHECKPOINT:** consists of one or more checks and expresses concretely the requirements that must be met by one or more components of a Web page (tags, attributes, CSS properties etc.), such as "Accessibility issue, due to omitting the alt attribute on img elements, area elements, and input elements of type image".



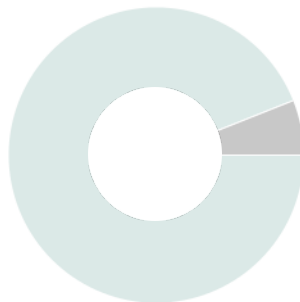
# EVALUATION OVERVIEW

|                               |   |
|-------------------------------|---|
| BASE URL                      | <a href="https://dati.regione.umbria.it/dataset">https://dati.regione.umbria.it/dataset</a> |
| CRAWLING PARAMETERS           |   |
| Number of pages               | 1   |
| Depth                         | 1   |
| NUMBER OF EVALUATED WEB PAGES | 1   |
| EVALUATION DATE               | 18 ott 2022   |
| EVALUATION TIME               | 12:13:  |

## MAUVE++ ACCESSIBILITY PERCENTAGE

The MAUVE++ accessibility percentage is a measure which indicates how much the website is accessible in terms of the number of checkpoints successfully evaluated over the total number of evaluated checkpoints for which the tool has been able to make a validation. Such a measure is computed over the total of the evaluated web pages.

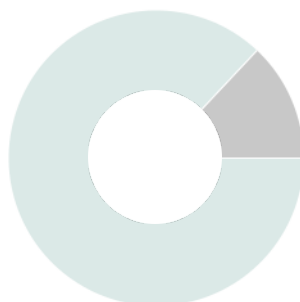
94%



## MAUVE++ EVALUATION COMPLETENESS

The MAUVE++ evaluation completeness is a measure which indicates the percentage of evaluated checkpoints for which the tool has been able to make a validation. Such a measure is computed over the total of the evaluated web pages.

87%





# EVALUATION OVERVIEW

## TOTAL ERRORS

We compute the number of erroneous checkpoints for all the evaluated web pages, the total number of occurrences, and the average number of errors' occurrences per page.

11

TOTAL CHECKPOINT TYPES WITH RESULT "ERROR"

315

TOTAL ERROR OCCURENCIES FOUND

315

AVERAGE ERROR OCCURENCIES PER PAGE

## TOTAL WARNINGS

We compute the number of warning checkpoints for all the evaluated web pages, the total number of occurrences, and the average number of warnings' occurrences per page.

9

TOTAL CHECKPOINT TYPES WITH RESULT "WARNING"

572

TOTAL WARNINGS OCCURENCIES FOUND

572

AVERAGE WARNING OCCURENCIES PER PAGE



# EVALUATION OVERVIEW

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## MOST ERRONEUS PAGES

We compute a rank of the most erroneous pages of the website, according to the occurrences of errors found in each evaluated page.

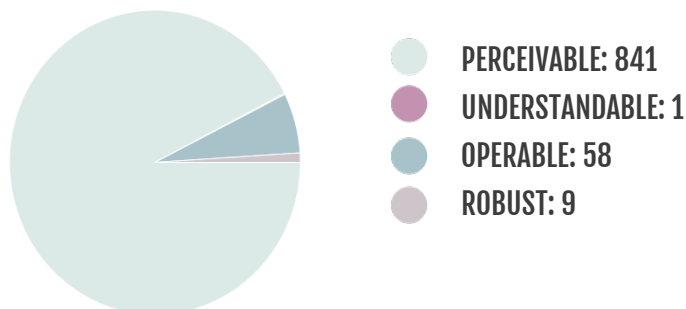
1. <https://dati.regione.umbria.it/dataset>



# PAGES EVALUATION

PAGE URL: <https://dati.regione.umbria.it/dataset>

## ERRORS GROUPED BY PRINCIPLES



| E/W         | Errors   | No. of occurrences |
|-------------|--|--------------------|
| PERCEIVABLE |  |                    |
| E           | SC 1.4.4 - 1.4.10 - Tech SCR34 Calculating size and position in a way that scales with text size   | 65                 |
| E           | SC 1.4.13 - Tech 1.4.13-ST2 CSS: Using hover and focus pseudo classes  | 2                  |
| E           | SC 1.4.11 - Tech F78 Failure due to styling element outlines and borders in a way that removes or renders non-visible the visual focus indicator | 2                  |
| E           | SC 1.3.5 - Tech H98 Identify the purpose of inputs using the autocomplete value  | 1                  |
| E           | SC 1.3.1 - 1.4.5 - Tech G140 Separating information and structure from presentation to enable different presentations                            | 12                 |
| E           | SC 1.3.1 - Tech H42 Using h1-h6 to identify headings   | 8                  |
| E           | SC 1.1.1 - 1.3.1 - Tech H44 Using label elements to associate text labels with form controls.  | 1                  |
| E           | SC 1.4.10 - Tech C38 Using CSS width, max-width and flexbox to fit labels and inputs   | 1                  |
| E           | SC 1.4.4 - 1.4.5 - Tech C12-13-14 Using percent, em units or named font sizes  | 217                |



# PAGES EVALUATION

| E/W                   | Errors  | No. of occurrences |
|-----------------------|---|--------------------|
| E                     | SC 1.3.1 - Tech ARIA16 Using aria-labelledby to provide a name for user interface controls  | 1                  |
| E                     | SC 1.4.3 - 1.4.11 - Tech G18 Ensuring that a contrast ratio of at least 4.5:1 exists between text (and images of text) and background behind the text                     | 5                  |
| W                     | SC 1.4.1 - Tech F73 Failure of Success Criterion 1.4.1 due to creating links that are not visually evident without color vision   | 85                 |
| W                     | SC 1.4.12 - Tech C21 Specifying line spacing in CSS   | 406                |
| W                     | SC 1.4.4 - 1.4.12 - Tech C28 Specifying the size of text containers using em units  | 18                 |
| W                     | SC 1.3.1 - Tech ARIA11 Using ARIA landmarks to identify regions of a page   | 17                 |
| <b>UNDERSTANDABLE</b> |   |                    |
| E                     | SC 3.3.2 - Tech H44 Using label elements to associate text labels with form controls.   | 1                  |
| <b>OPERABLE</b>       |   |                    |
| E                     | SC 2.4.7 - Tech F78 Failure due to styling element outlines and borders in a way that removes or renders non-visible the visual focus indicator                           | 2                  |
| W                     | SC 2.4.2 - Tech G88 Providing descriptive titles for Web pages  | 1                  |
| W                     | SC 2.4.1 - Tech ARIA11 Using ARIA landmarks to identify regions of a page   | 17                 |
| W                     | SC 2.4.4 - Tech H33 Supplementing link text with the title attribute  | 38                 |
| <b>ROBUST</b>         |   |                    |
| E                     | SC 4.1.2 - Tech H44 Using label elements to associate text labels with form controls.   | 1                  |
| E                     | SC 4.1.2 - Tech ARIA16 Using aria-labelledby to provide a name for user interface controls  | 1                  |
| W                     | SC 4.1.3 - Tech ARIA19 Use role=alert or aria-live=assertive attribute in order to inject the error message inside these containers and notify the Assistive Technologies | 2                  |
| W                     | SC 4.1.2 - Tech ARIA5 Using WAI-ARIA state and property attributes to expose the state of a user interface component  | 1                  |



# PAGES EVALUATION

| E/W | Errors  | No. of occurrences |
|-----|---|--------------------|
| W   | SC 4.1.3 - Tech G199 Use role=status attribute in order to notify the Assistive Technologies that the submission was successful | 4                  |

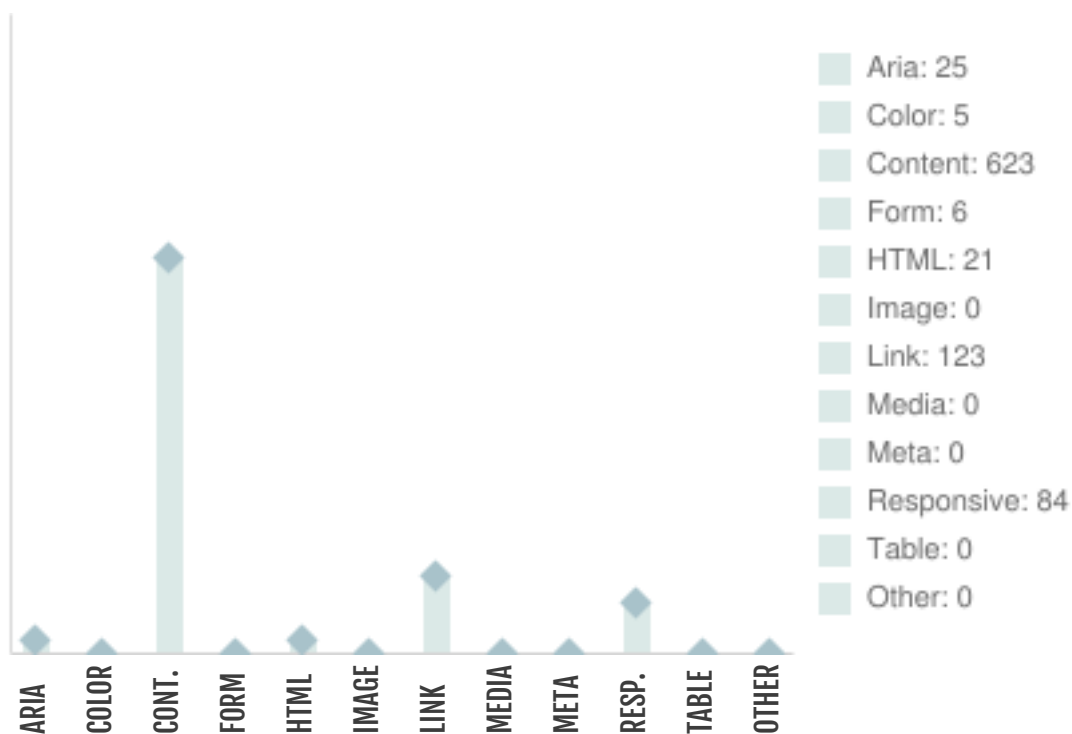




# PAGES EVALUATION

PAGE URL: <https://dati.regione.umbria.it/dataset>

## ERRORS GROUPED BY CATEGORIES



| E/W  | Errors  | No. of occurrences |
|------|---|--------------------|
| ARIA |   |                    |
| E    | SC 1.3.1 - 4.1.2 - Tech ARIA16 Using aria-labelledby to provide a name for user interface controls  | 1                  |
| W    | SC 4.1.3 - Tech ARIA19 Use role=alert or aria-live=assertive attribute in order to inject the error message inside these containers and notify the Assistive Technologies | 2                  |
| W    | SC 4.1.2 - Tech ARIA5 Using WAI-ARIA state and property attributes to expose the state of a user interface component  | 1                  |



# PAGES EVALUATION

| E/W            | Errors   | No. of occurrences |
|----------------|--|--------------------|
| W              | SC 1.3.1 - 2.4.1 - Tech ARIA11 Using ARIA landmarks to identify regions of a page  | 17                 |
| W              | SC 4.1.3 - Tech G199 Use role=status attribute in order to notify the Assistive Technologies that the submission was successful                          | 4                  |
| <b>COLOR</b>   |  |                    |
| E              | SC 1.4.3 - 1.4.11 - Tech G18 Ensuring that a contrast ratio of at least 4.5:1 exists between text (and images of text) and background behind the text    | 5                  |
| <b>CONTENT</b> |  |                    |
| E              | SC 1.4.4 - 1.4.5 - Tech C12-13-14 Using percent, em units or named font sizes  | 217                |
| W              | SC 1.4.12 - Tech C21 Specifying line spacing in CSS  | 406                |
| <b>FORM</b>    |  |                    |
| E              | SC 1.4.13 - Tech 1.4.13-ST2 CSS: Using hover and focus pseudo classes  | 2                  |
| E              | SC 1.4.11 - 2.4.7 - Tech F78 Failure due to styling element outlines and borders in a way that removes or renders non-visible the visual focus indicator | 2                  |
| E              | SC 1.3.5 - Tech H98 Identify the purpose of inputs using the autocomplete value  | 1                  |
| E              | SC 1.1.1 - 1.3.1 - 3.3.2 - 4.1.2 - Tech H44 Using label elements to associate text labels with form controls.  | 1                  |
| <b>HTML</b>    |  |                    |
| E              | SC 1.3.1 - 1.4.5 - Tech G140 Separating information and structure from presentation to enable different presentations                                    | 12                 |
| E              | SC 1.3.1 - Tech H42 Using h1-h6 to identify headings   | 8                  |
| W              | SC 2.4.2 - Tech G88 Providing descriptive titles for Web pages   | 1                  |
| <b>LINK</b>    |  |                    |
| W              | SC 1.4.1 - Tech F73 Failure of Success Criterion 1.4.1 due to creating links that are not visually evident without color vision                          | 85                 |
| W              | SC 2.4.4 - Tech H33 Supplementing link text with the title attribute   | 38                 |



# PAGES EVALUATION

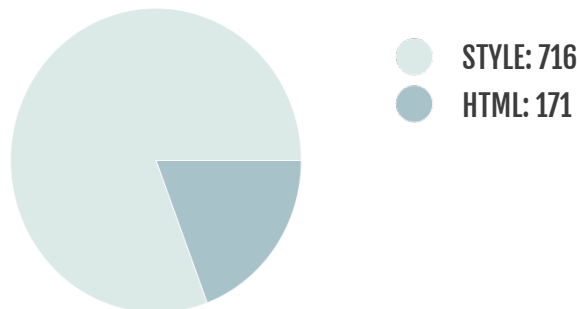
| E/W        | Errors   | No. of occurrences |
|------------|--|--------------------|
| RESPONSIVE |  |                    |
| E          | SC 1.4.4 - 1.4.10 - Tech SCR34 Calculating size and position in a way that scales with text size | 65                 |
| E          | SC 1.4.10 - Tech C38 Using CSS width, max-width and flexbox to fit labels and inputs             | 1                  |
| W          | SC 1.4.4 - 1.4.12 - Tech C28 Specifying the size of text containers using em units               | 18                 |



# PAGES EVALUATION

PAGE URL: <https://dati.regione.umbria.it/dataset>

## ERRORS GROUPED BY HTML VS STYLE



| E/W   | Errors   | No. of occurrences |
|-------|--|--------------------|
| STYLE |  |                    |
| E     | SC 1.4.4 - 1.4.10 - Tech SCR34 Calculating size and position in a way that scales with text size   | 65                 |
| E     | SC 1.4.13 - Tech 1.4.13-ST2 CSS: Using hover and focus pseudo classes  | 2                  |
| E     | SC 1.4.11 - 2.4.7 - Tech F78 Failure due to styling element outlines and borders in a way that removes or renders non-visible the visual focus indicator | 2                  |
| E     | SC 1.4.10 - Tech C38 Using CSS width, max-width and flexbox to fit labels and inputs   | 1                  |
| E     | SC 1.4.4 - 1.4.5 - Tech C12-13-14 Using percent, em units or named font sizes  | 217                |
| E     | SC 1.4.3 - 1.4.11 - Tech G18 Ensuring that a contrast ratio of at least 4.5:1 exists between text (and images of text) and background behind the text    | 5                  |
| W     | SC 1.4.12 - Tech C21 Specifying line spacing in CSS  | 406                |
| W     | SC 1.4.4 - 1.4.12 - Tech C28 Specifying the size of text containers using em units   | 18                 |
| HTML  |  |                    |



# PAGES EVALUATION

| E/W | Errors  | No. of occurrences |
|-----|---|--------------------|
| E   | SC 1.3.5 - Tech H98 Identify the purpose of inputs using the autocomplete value   | 1                  |
| E   | SC 1.3.1 - 1.4.5 - Tech G140 Separating information and structure from presentation to enable different presentations   | 12                 |
| E   | SC 1.3.1 - Tech H42 Using h1-h6 to identify headings  | 8                  |
| E   | SC 1.1.1 - 1.3.1 - 3.3.2 - 4.1.2 - Tech H44 Using label elements to associate text labels with form controls.   | 1                  |
| E   | SC 1.3.1 - 4.1.2 - Tech ARIA16 Using aria-labelledby to provide a name for user interface controls  | 1                  |
| W   | SC 4.1.3 - Tech ARIA19 Use role=alert or aria-live=assertive attribute in order to inject the error message inside these containers and notify the Assistive Technologies | 2                  |
| W   | SC 1.4.1 - Tech F73 Failure of Success Criterion 1.4.1 due to creating links that are not visually evident without color vision   | 85                 |
| W   | SC 2.4.2 - Tech G88 Providing descriptive titles for Web pages  | 1                  |
| W   | SC 4.1.2 - Tech ARIA5 Using WAI-ARIA state and property attributes to expose the state of a user interface component  | 1                  |
| W   | SC 1.3.1 - 2.4.1 - Tech ARIA11 Using ARIA landmarks to identify regions of a page   | 17                 |
| W   | SC 2.4.4 - Tech H33 Supplementing link text with the title attribute  | 38                 |
| W   | SC 4.1.3 - Tech G199 Use role=status attribute in order to notify the Assistive Technologies that the submission was successful   | 4                  |

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# HIIS LAB @ ISTI-CNR

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Pisa • Italy

Interest in design and development of interactive software applications has increased considerably over the last few years. The underlying reason for this interest is the need to provide the greatest number of people with access to applications for the largest number of purposes and in the widest number of contexts. Our research activity is in methods and tools to support user interface designers, software developers, and end users in obtaining systems that can be accessed from different contexts of use (devices, users, physical and social environments) in such a way to improve usability, accessibility, and user experience.

The main goal is to propose new solutions in basic and applied research in the field of human-computer interaction, specifically in user interface software and technologies, mainly under the aegis of national and international programmes and private sector R&D contracts. One of the first groups in Italy in the HCI area, we have become well-known at an International level, as demonstrated by participation in numerous European projects and the board of the most important HCI conferences, and publications in the major HCI and software engineering journals and conferences.

The main research areas concern Methods and Tools for the Analysis, Design and Development of Interactive Applications, Intelligent Interfaces, Interfaces for Ubiquitous Applications, MultiModal Interfaces, Accessibility, Usability Engineering and Models for HCI. Such work has led to the development of a numbers of tools and applications, many of which are publicly available for download.

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