

Guidelines for the realization of accessible presentations

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1. INTRODUCTION

As part of the radical change in the way we live, work and study that technological progress is bringing with it, it is essential that tools *accessible to all* are also used in the world of communication and information, including, for example, Power Point presentations, a privileged vehicle for business-related communication because it is direct and high impact.

Accessibility means the ability of IT systems to provide services and provide actionable information, without discrimination, even by those who need assistive technologies or special configurations due to disabilities.

In fact, accessibility is linked to a design methodology of modern conception and wide spectrum called **Universal Design**, which has as its fundamental purpose the design and construction of buildings, products and environments that are in themselves accessible to every category of people, beyond the possible presence of a condition of disability, and so that they are pleasant and usable as much as possible by anyone, regardless of age, ability and/or social condition.

In this context, you want to give the main indications on how to create products "**designed for everyone**" using the Office **Power Point** application, tips that guarantee accessibility even when such documents are **saved in PDF**.

It specifies that the following and the images were processed using Microsoft® Version 2011 Power Point® for Microsoft 365 MSO. If you use different versions, function names or views may appear differently.

2. DIGITAL ACCESSIBILITY STANDARDS AND REFERENCE LEGISLATION

Below is a brief overview of the main reference legislation and guidelines for the design of accessible services, on the basis of which the standards to be adopted in the development of The Enel Group's solutions have been identified.

2.1. WEB CONTENT ACCESSIBILITY GUIDELINES (WCAG)

The World Wide Web Consortium (**W3C**), an international non-governmental organization with a mission to lead the World Wide Web to its full potential, has developed protocols and guidelines that ensure the long-term growth of the Web known as [WCAG](#) (Web Content Accessibility Guidelines).

WCAG includes a number of **recommendations** and defines **specifications** for designers and developers so that they can make Web and technological content, or more generally **human-machine interfaces, accessible and usable by people with disabilities**.

They are recognized as the **de facto global standard for designing accessible websites**, and define three levels of compliance: **Level A, AA Level, and AAA Level**.

2.2. ISO STANDARDS, EN

Accessibility is also a feature of all **three ISO/IEC 25000 quality models: software, data, and IT services**.

In addition, to help companies adopt a unique approach on the issue of accessibility, **European Standard EN 17161:2019** has been issued entitled *"Design for all - Accessibility requirements for products, goods and services designed according to the "Design for all" approach - Expansion of the range of users"*.

2.3. EUROPEAN UNION LEGISLATION

For years, Parliament and the European Council have also been working to raise the objectives of improving the accessibility of the IT world and the services used in everyday life.

To this end, the following have been issued:

- **The EU Directive 2016/2102** on the accessibility of websites and mobile applications of public bodies;
- **the European Accessibility Act, approved by the European Parliament on 13 March 2019**, as part of the EU Disability Strategy: concerns the accessibility of other products and services (e.g., computers and operating systems, smartphones, ATMs, alarm systems, digital television services).

2.4. MOBILE APP ACCESSIBILITY GUIDELINES

Major mobile platform manufacturers such as Apple, Microsoft, and Google provide **specific developer guidelines** while also providing **accessible frameworks for building Mobile Apps**. For further information, please refer to:

<https://confluence.springlab.enel.com/display/ACCESSIBILITY/>

2.5. DIGITAL ACCESSIBILITY STANDARDS ADOPTED BY ENEL

Enel has chosen to ensure compliance at AA Level of the Web Content Accessibility Guidelines (WCAG 2.1) dictated globally by the World Wide Web Consortium (**W3C**), without prejudice to the obligation to comply with national regulations in force in individual countries, where these provide for the obligation of compliance at a higher level (as in the case of Great Britain and Oceania).

For all digital accessibility compliance guidelines, **please refer to the Confluence [Digital Accessibility](#) page.**

3. HOW TO CREATE AN ACCESSIBLE PRESENTATION

3.1. ACCESSIBLE POWER POINT FRAMEWORK

When writing a document, it is good practice to always start from a **new worksheet** and not use old materials. This ensures not only the presence of elements targeted and functional to the topics to be addressed, but also greater accessibility of content in a linear way.

For the creation of a presentation it is advisable **to use the Enel Master Power Point**, developed by the Brand Strategy Communications function in order to generate uniformity in the documents produced by the Enel population in compliance with the Brand Identity and the guidelines.

3.2. FORMATTING (CHARACTERS, PARAGRAPHS)

It is suggested to use the **font Arial** among the characters "**sans serif**" (that they do not have the terminal strokes called "serif"), more easily readable on a computer screen.

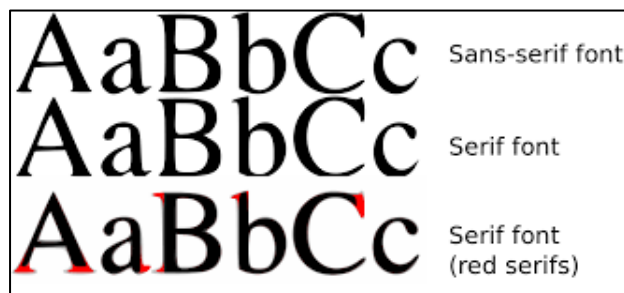


Figure 1

It is recommended to use a **minimum size of 12 PT** and a **line spacing between 1.2 and 1.5**.

You should also **avoid justified text** as it can alter the screen reader's reading speed.

3.3. HEADER LEVELS

The header levels correspond to the **titles**: title of the entire document, sections, chapters, paragraphs, and so on.

In Power Point, you can currently define and use only 2 header levels: header level 1 for the title of the entire presentation and header level 2 for the title of all other slides.

To ensure that header levels are correctly attributed in Power Point, you should always start with a **new presentation**, choosing the **right layout in the template**, specifically by using the title slide only for the cover page.

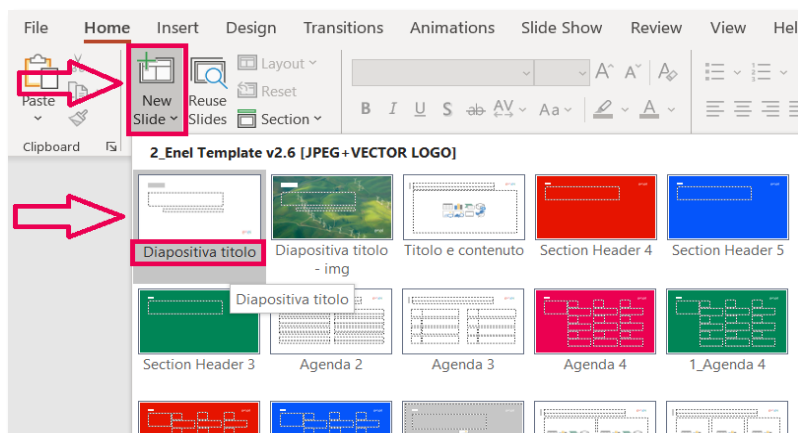


Figure 2

It is also important **to check the spelling** of the entire document to avoid repetition in multiple header levels.

3.4. CONTRAST RATIOS

You need to provide **enough contrast between text or graphics and the background**, so that they can be correctly perceived by people with moderate vision problems.

WCAG 2.1, in this regard, contains precise standards to be met (see the Success Criteria or C.d.S. 1.4.3 and 1.4.11).

Useful tools to verify compliance with the contrast ratio can be easily found online such as the contrast checker of the websiteaim: <https://webaim.org/resources/contrastchecker/>.

In any case, it is necessary **to use only the colors of the Enel palettes present in the template**, which have hexadecimal codes whose contrast ratio already conforms to level AA.

3.5. ORDER IN WHICH OBJECTS ARE READ

One of the most delicate aspects to be protected in a presentation is **to ensure the interception of each technical object present** in each slide, by the screen reader, **in a meaningful order or sequence** such as to preserve the meaning of its content (C.d.S. 1.3.2).

The current Enel template has already been formatted to read correctly all the objects of the slides: if you respect the template, you will have to pay attention only to the creation of new elements, as described below.

Viewing objects

In a Power Point document, **any object present** (title, subtitle, images, text boxes, charts, etc.) is **listed within the "Selection Pane"**.

You access this feature from the "Home" tab, "Draw" group, "Arrange" menu. The box will open on the right with the list of all the objects in the slide:

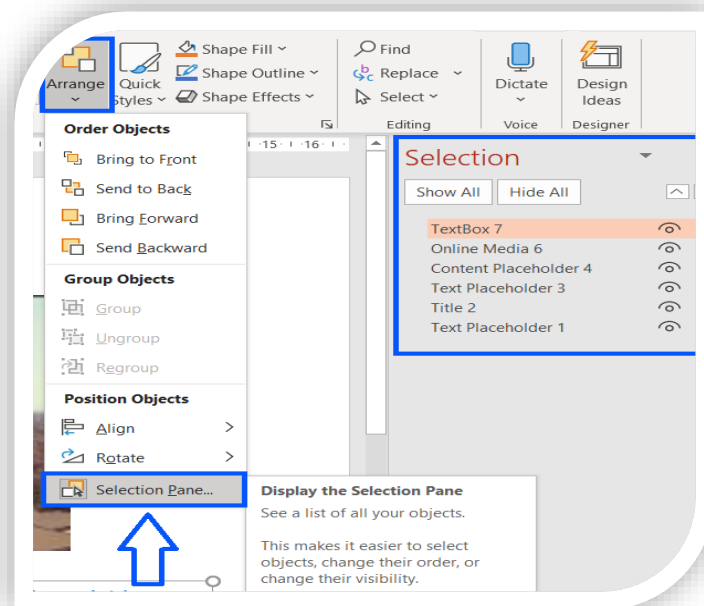


Figure 3

How to sort objects

In order to correctly sort the objects in the slide according to the significant sequence, it must start from the fact that they are automatically displayed in reverse order with respect to how they are intercepted by the screen reader or **the reader intercepts them from the bottom up**.

For example, in figure 3, the reader will first intercept the object corresponding to "Text Placeholder 1", then "Title 2", "Text Placeholder 3", and so on to the top.

If you wanted the reader to read one object from another **first, you would have to manually move it down**:

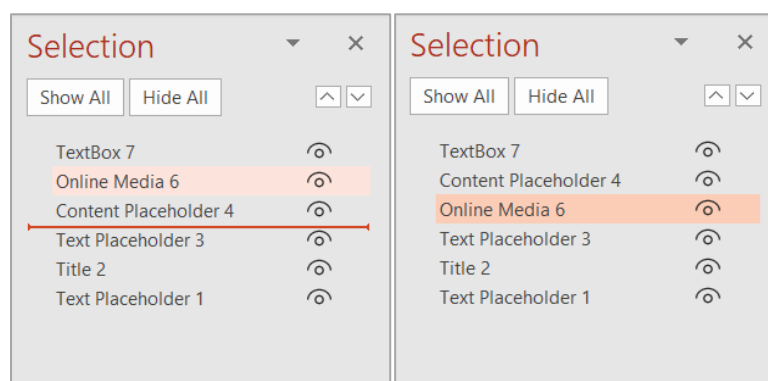


Figure 4

Creating a new object

When inserting a new object into a presentation, you should be careful that the system automatically arranges it at the top of the list, meaning **that the new object will be read last by the screen reader**. It is therefore advisable to check that the correct meaningful sequence is preserved, possibly moving the objects as just shown.

3.6. ALT TEXT (PICTURES, CHARTS, VIDEOS)

In the presence of content that affects the view such as images, graphics and videos, it is advisable that they are perceived through at least one other sensory channel, usually hearing (first "Perceptible" principle of WCAG 2.1).

To this end, it is necessary **to write texts alternative to visual elements** that transmit the same content and purpose in a concise and unequivocal way, so that they can be read by assistive technologies and also affect the hearing channel.

Where it fits

To insert a text alternative, you select the object of interest and right-click; in the drop-down menu, choose the item "Edit alternate text". This opens the **"Alt Text" box** on the right with a text box in which to insert the description.

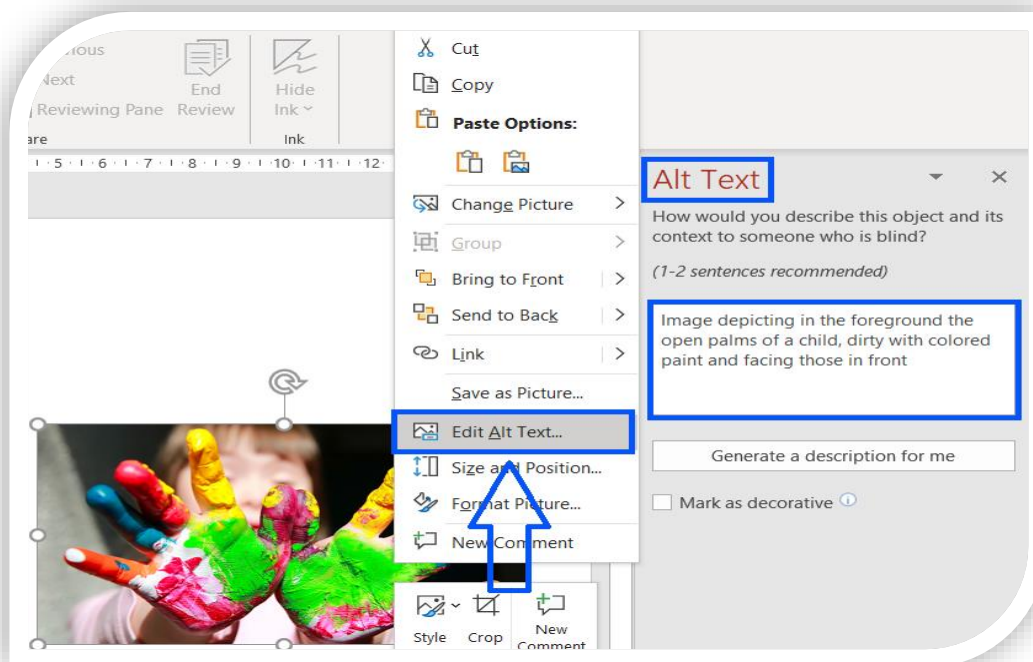


Figure 5

Examples

Below are some examples of alternative texts inserted for the main content in use in the presentations.

1. Images

Figure 6

"Top view image with four people rowing".



2. Graphics

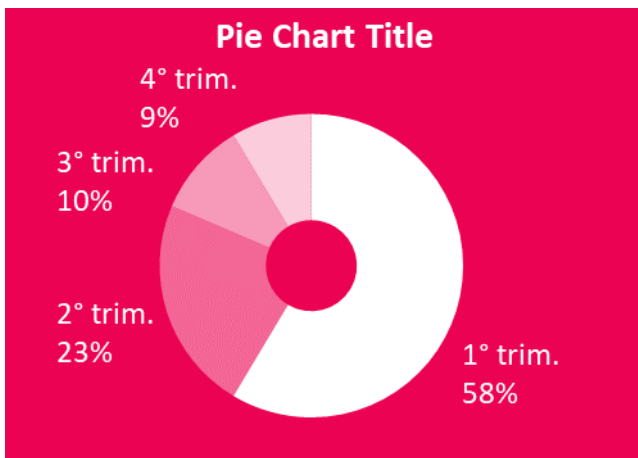
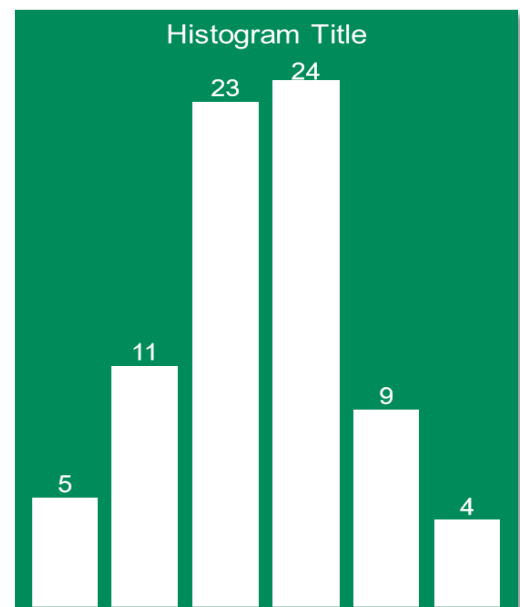


Figure 7 – Pie chart

"Pie chart on **graphic theme**". In the first quarter, the value of **xxx** was 58%, in the second quarter 23%, in the third quarter at 10% and in the fourth quarter at 9%."

Figure 8 – Histogram chart

"Column chart on **chart theme with details on x-axis variable and ordered axis variable**". For x1, the value is 5, for x2 the value is 11, for x3 23, for x4 24, for x5 the value is 9, and for x6 the value is 4".



3. Video



Figure 9 – Video

"Video about the Enel Strategic Plan 2020 - 2022".

3.7. MARK VISUALS AS DECORATIVE

Decorative objects (such as stylistic edges, connectors, arrows, but also images that do not add meaning), improve visual rendering but are not informative; As they are usually read as "graphs" by screen readers, they may disorient users.

You should **always mark these stationery so that you are not intercepted** by the reader; to do so, you select the "Mark as decorated sheet" check box when the Alt Text pane is open. The text entry field becomes inactive.

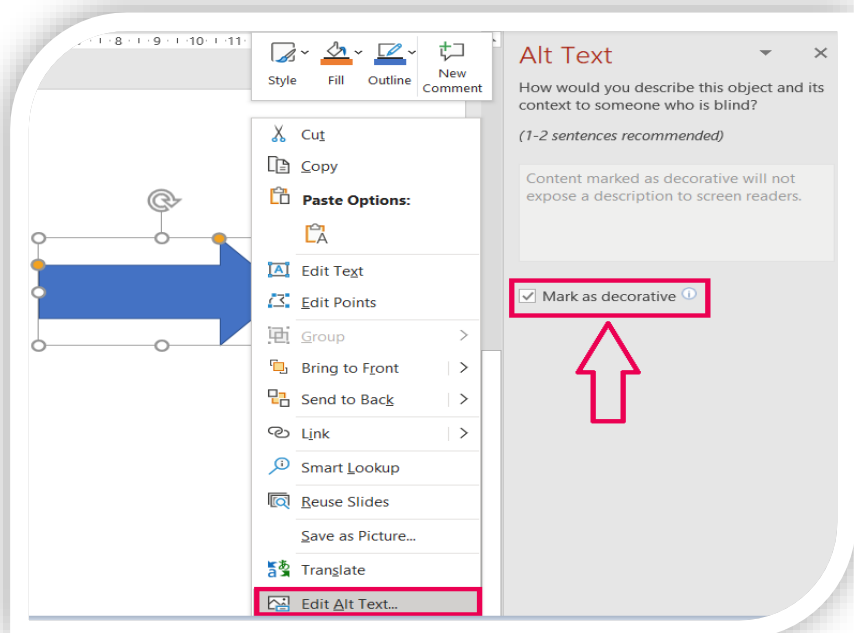


Figure 10

3.8. VIDEOS AND HYPERLINKS

Within a presentation, you can add a video to play directly in your document; to ensure that the user experience is "designed for everyone" it is advisable to follow some indications.

Alt text

As already mentioned, first you need **to add alternative text to the media content** that generally presents its topic and purpose, with the "Alt Text" feature described in par. 3.6.

Subtitles for audio content

In order to satisfy the first principle of WCAG 2.1, as already stated for images, it is advisable to insert **subtitles to the sound content**, in order to reproduce the audio (which affects the hearing) in written form (i.e. affecting the sensory channel of the view).

Descriptions for meaningful silent scenes

In the presence of significant scenes without audio that provide additional elements of understanding to what you are transmitting (view channel), it is good practice to also involve hearing **by accompanying the video with an audio description or reported in text form** so that it can be played by the screen player.

Buttons / keyboard operation

In addition, following Guideline 2.1, it is important to ensure that **all features are made available** not only by the mouse but **also by keyboard**, as if there are buttons.

Blinks

It is also essential that **there is no content that flashes more than 3 times per second**, as it could cause seizures or physical reactions (Guideline 2.3).

Hyperlinks

If hyperlinks to videos that open in external pages are inserted into a Power Point presentation, it is first necessary to ascertain the **correct opening of the link also from the keyboard**.

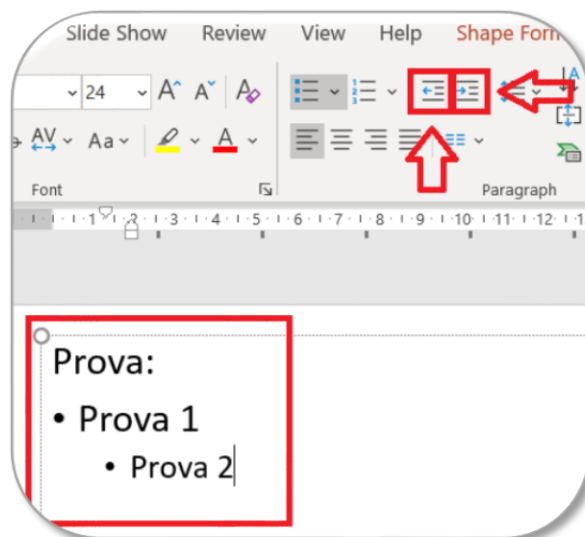
The video to which you refer must also comply with all the above suggestions.

3.9. BULLETED AND NUMBERED LISTS

Sometimes it can be useful to insert a bulleted or numbered list into the body of the text. Creating lists and sublists is important **make the most of the two features "Reduce List Level" and "Increase List Level"** (see fig.11).

When you insert the first "parent" list, the indentation on the left is moved to the maximum; when you want to create a first sublist, you must increase the indentation by one layer, for an additional sublist, increase the indentation by two levels, and so on. This allows the screen reader to communicate the correct structure of the drawn up lists, intercepting the "parent" only as a "list", and the subsequent as "list of X elements – internal level 1, 2, 3" etc.

Figure 11



3.10. XLS TABLES

When you want to insert an Excel table into your presentation, **the simple steps** you should take so as not to disorient the screen reader are:

1. Always insert column headers;
2. Do not use nested cells;
3. Do not use nested tables.

3.11. CHECKING SPELLING AND SAVING TO PDF

Once you have finished writing all the parts of the presentation, accessibility side it is good practice **to perform a spelling check** using a special "Spelling" feature on the Review tab. The screen reader, in fact, is disoriented by the wavy red dashes placed under the wrong words, giving rise to annoying errors such as the aforementioned repetitions of header levels.

At this point, you can **check the compliance of the presentation at AA level by reading the document in its PDF version** also with the help of the screen reader.

To create its PDF from the built Power Point, simply save the document using the File / Save As path and choose the PDF entry in the cascading menu below the document title.

Please note that **the PDF created will already be in a fully accessible version.**

3.12. SHORTCUT

“Shortcuts” are keyboard fast navigation keys, allowing you to quickly navigate within a PDF or wherever the Virtual PC Cursor is active. Specifically, for each type of element, they allow you to “jump” from object to object (e.g., clicking on the H button moves from one header level to the next).

It is important to specify that by adding SHIFT to any shortcut, the reader will intercept the previous technical element.

Verifying that a shortcut object has been effectively intercepted is one way **to ensure that the document has been created in accessible format.**

Below is a small list, not exhaustive, of the main key combinations that can be used on PDFs created from a Power Point presentation.

For common keyboard shortcuts that can be used with Adobe and Windows, see the following links: https://helpx.adobe.com/it/acrobat/using/keyboard-shortcuts.html#keys_for_accessibility and <http://support.microsoft.com/it-it/help/126449>, respectively.

ShortCut	Description
<i>B</i>	<i>Intercept the next button</i>
<i>G</i>	<i>Intercepts a picture, chart, next table</i>
<i>H</i>	<i>Intercept the next header</i>
<i>L</i>	<i>Intercept the next bulleted/numbered list</i>
<i>T</i>	<i>Intercept the next table</i>
<i>U</i>	<i>Intercept subsequent uns visited hyperlinks</i>
<i>V</i>	<i>Intercepts subsequent visited hyperlinks</i>
<i>ARROW DOWN</i>	<i>Scroll down</i>
<i>UP ARROW</i>	<i>Scroll up</i>
<i>Ctrl+A</i>	<i>Select all items in a document or window</i>
<i>Ctrl+Page Down</i>	<i>Quickly navigate to the next page</i>
<i>Ctrl+Page Up</i>	<i>Quickly navigate to the previous page</i>
<i>Ctrl+Shift+Page Giu</i>	<i>Quickly navigate to the last page</i>
<i>Ctrl+Shift+Page Up</i>	<i>Allows you to quickly go to the first page</i>
<i>Ctrl+Alt+Right Arrows/Left</i>	<i>Navigates through columns in an Excel table</i>
<i>Ctrl+Alt+Arrows Up/Down'</i>	<i>Navigates between rows in an Excel table</i>