INCLUSIVE COMMUNICATION:

GUIDELINES
FOR THE DRAFTING
OF ACCESSIBLE
DOCUMENTS

FOREWORD

Imagine yourself reading an important document where the words are small and difficult to distinguish. Now, consider someone who has a visual impairment or relies on a screen reader. For them accessibility is crucial!

Simply put, an accessible document is like a friendly person who explains everything to you clearly, without mincing words. It is designed to be understandable, regardless of the reader's abilities or the technology you use.

When we write, we should imagine that we are speaking to a diverse audience: from those with reading superpowers to grandparents with thick glasses.

Remember: accessibility is not just a matter of conforming to rules, but of creating a well made world which every person can join in the feast of words.

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1. INTRODUCTION: COMMITMENT TO AN INCLUSIVE AND RESPECTFUL CULTURE

At UNI we are committed to making our technologies and content inclusive, thus accessible. This commitment stems from our governance model, which is based on social responsibility in accordance with UNI EN ISO 26000 and it underpins the core values of technical standardisation.

In the world of accessibility, we have long been aware of architectural barriers, for example physical elements that limit and challenge people with limited mobility.

More recently, digital barriers have similarly come to represent a denied right.

Everyone must be able to access information and use the services offered by a platform, a website or view the contents of a document.

With this in mind, we have been striving for several years now to make more and more brochures and documents available in accessible PDF versions. In the same direction, we have been working on revising the website.

But we want to go further, laying the foundations for a future in which all of our documents — both technical and non-technical — are published in an accessible format.

These guidelines offer advice on how to draft texts that result in accessible documents.

Today, various computer technologies — hardware, software and devices — aid in reading documents, making them usable without discrimination. Common examples include screen readers, keyboards for the blind, mouse pointers, et cetera.

These assistive technologies enable content navigation, voice reading, high-contrast visualisation, and Braille display reading.

> *Digital accessibility refers to the ability of computer systems to deliver services and provide information that can be used, without discrimination, even by those who require assistive technologies or special configurations due to disabilities.*
>
> **https://www.agid.gov.it/it/design-servizi/accessibilita**

An accessible document can be consulted by individuals who are blind, visually impaired, colour-blind or have cognitive, hearing and motor impairments, et cetera.

A document that is visually complex and immediately comprehensible and graphically pleasing to the human eye may be interpreted differently by assistive technologies. **These technologies filter out non-essential elements, creating a streamlined reading path.**

To create an accessible document, a few basic rules should be followed:

- write texts according to good writing practices to facilitate comprehension;
- set up the content structure by identifying and organising headings, paragraphs, lists and tables in a coherent and orderly manner;
- identify functional images and provide a description (alternative text);
- choose graphics that ensure adequate text/background contrast to allow good readability for visually impaired or colour-blind people;
- save the document with a concise and meaningful name in order to enable the user to recognise and easily identify its content.

The font size, text styles (bold, italic, underlined...), colours, headers and footers, are elements that catch the attention of normally sighted individuals and assist them in reading. **For accessibility purposes, it is only the organisation of the content that makes a document clear and readable!**

WHAT IS NEEDED TO FOSTER INCLUSIVENESS...

BLIND PEOPLE use alternative text descriptions for meaningful images and rely on the keyboard, not the mouse, to interact with interactive elements

DEAF OR HARD OF HEARING PEOPLE read subtitles for video presentations and use visual indicators instead of audio signals

PEOPLE WITH MOTOR DISABILITIES may use alternative keyboards, optical control or other adaptive hardware to assist with typing and navigate on their devices

PEOPLE WITH DIFFERENT LEARNING DIFFICULTIES are facilitated by an uncluttered screen, consistent navigation, and the use of simple language

ABOUT COLOUR...

- Visually impaired users often have limited colour vision.
- Older users may have difficulty distinguish colours.
- Colour-blind users particularly benefit when information is not conveyed and differentiated by colour alone.
- Users of screen readers may not benefit from information differentiated only by colour.

2. HOW TO ORGANISE THE CONTENTS OF A DOCUMENT

The first step is to organise all the elements within a document: each title or subtitle "anticipates" the content that follows. A well-organised text from the start will be easily understood by assistive technologies.

To ensure that speech assistants and text-to-speech programmes can access the text, **the document must be properly structured**. In a PDF file, "tags" inserted into the structure define the reading order and allow headings, paragraphs, sections, tables and other elements on the page to be identified. This task is carried out by those responsible for page layout.

The elements that need to be organised to create an accessible document include:

- titles (of different levels), paragraphs, texts;
- lists;
- text box;
- tables;
- images, photographs, graphics;
- hyperlinks.

Titles serve to succintly indicate the content of the paragraphs that follow, **creating a clear rading path**. The presence of headings allows users of assistive technologies to “browse” through the content of the entire document and jump directly to the points of interest, significantly speeding up and facilitating interaction.

At the same time, titles enable the automatic creation of the table of contents and bookmarks.

Since headers and footers of a document will not be read by assistive technologies, avoid placing information there that is not available elsewhere. Instead, include only additional or repetitive information (for example, the document title, which is already on the cover, or the page number).

2.1 STRUCTURING HEADINGS AND PARAGRAPHS

Let's organise the contents of a document by thinking of it as a book with a title, chapters and subsequent paragraphs.

Titles guide us in reading, establish a hierarchical relationship (indicated by the tags H1, H2, H3, H4 and so on). They must therefore follow an order and have continuity to facilitate reading.

The H1 tag represents the title of the document (there can only be one H1). Subsequent tags should be inserted according to the order of importance and organisation of the text (for example, an H3 title cannot exist without a preceding H2 title).

The image shows an example of the correct organisation of a document.

H1 **SUSTAINABILITY REPORT**

H2 **CHAPTER 1: GOVERNANCE: A WELL MADE WORLD IS OUR MISSION**

H3 **WHO WE ARE**

Text (P) UNI, Ente Italiano di Normazione, founded in 1921, is the Italian national standards body pursuant to Legislative Decree No 223/2017, implementing European Union Regulation No 1023/2012 ...

H4 **STANDARDISATION THAT MAKES HISTORY**

Text (P) Did you know that, already in ancient Rome, there was a unification (standardisation) of brick sizes? Even then, it was necessary to establish common standards for weights and measures to ensure mutual understanding in the exchange of goods.

H3 **OUR IDENTITY**

H4 **VISION**

H5 **Helping to build a well made world**

Text (P) To be the normative reference point, to identify, disseminate and support...

H3 **THE NEW STAKEHOLDERS MAP**

H2 **CHAPTER 2:**

2.2 THE PERFECT TEXT

USE THE LEFT-HAND ALIGNMENT OF THE TEXT (FLAG): the spaces automatically created in justified text and centred text can create reading problems with assistive technologies.

AVOID ABBREVIATIONS!
It is better to use the extended version of acronyms (at least the first time we encounter them in the text) because not everyone may be aware of their meaning and because reading programmes have difficulty interpreting abbreviations and truncated words.

LIMIT THE USE OF SPECIAL CHARACTERS TO ONLY WHEN THEY ARE INDISPENSABLE, such as the section sign (§), the euro symbol (€), more than or equal to (≥), less than or equal to (≤)...
When possible, write them out in full.

AVOID WRITING ENTIRE PORTIONS OF TEXT IN CAPITAL LETTERS ("shouted" text). Capitalization can be used for acronyms or phrases that need to attract the user's attention, as long as they are kept brief.

Instead of...	...better use
Dear Mr.	Dear Sir
CO2	carbon dioxide
h	hours
1 000	1,000 (or 1.000)
see Point 5.3	go to Point 5.3
≤	less than or equal to

REMEMBER:

An accessible text must be thought out **before** the graphic layout!

Since assistive technologies cannot identify character styles, there is no need to use italics, small caps, or underlining to highlight important words or sections. **The text will be read in the same way regardless!**

Use **boldface** but **do not overuse it.** Boldface is used to focus the reader's attention on words or sections considered to be of particular importance.

Excessive use of bold type diminishes its effectiveness.

PAY ATTENTION TO COLOUR USAGE: ensure that colour references are not used in the text to convey content.

USE AN EXCLAMATION MARK AT THE END OF THE SENTENCE IF THE CONTENT IS IMPORTANT!

Common mistakes

- Using a coloured part of the text to emphasise the importance of the sentence. Since people using assistive technology will not see that the text is "red", they will neglect it.
- Making references to coloured parts. Instead of saying, "In the blue box are the data concerning ..., while in the green box are the data concerning ...," **prefer** "In the following/previous box," "In the box at Point 5," or similar descriptions.
- Creating alignments using the space bar.
- Thinking that justified text makes reading easy: on the contrary, this can impair reading with assistive technologies.

2.3 HOW TO USE LISTS

LISTS SHOULD BE ORGANISED IN AN ORDERLY AND COHERENT MANNER TO FACILITATE NAVIGATION.

If items follow a specific sequence, use a numbered list (letters or numbers). For simple bulleted lists, prefer the hyphen over other symbols or graphics.

A WELL-STRUCTURED LIST IMMEDIATELY CONVEYS THE NUMBER OF ELEMENTS IT CONTAINS.

Avoid using punctuation marks or other characters to “simulate” a list: use the paragraph style for creating bulleted list.

IF POSSIBLE, LIMIT THE NUMBER OF LIST LEVELS TO A MAXIMUM OF THREE.

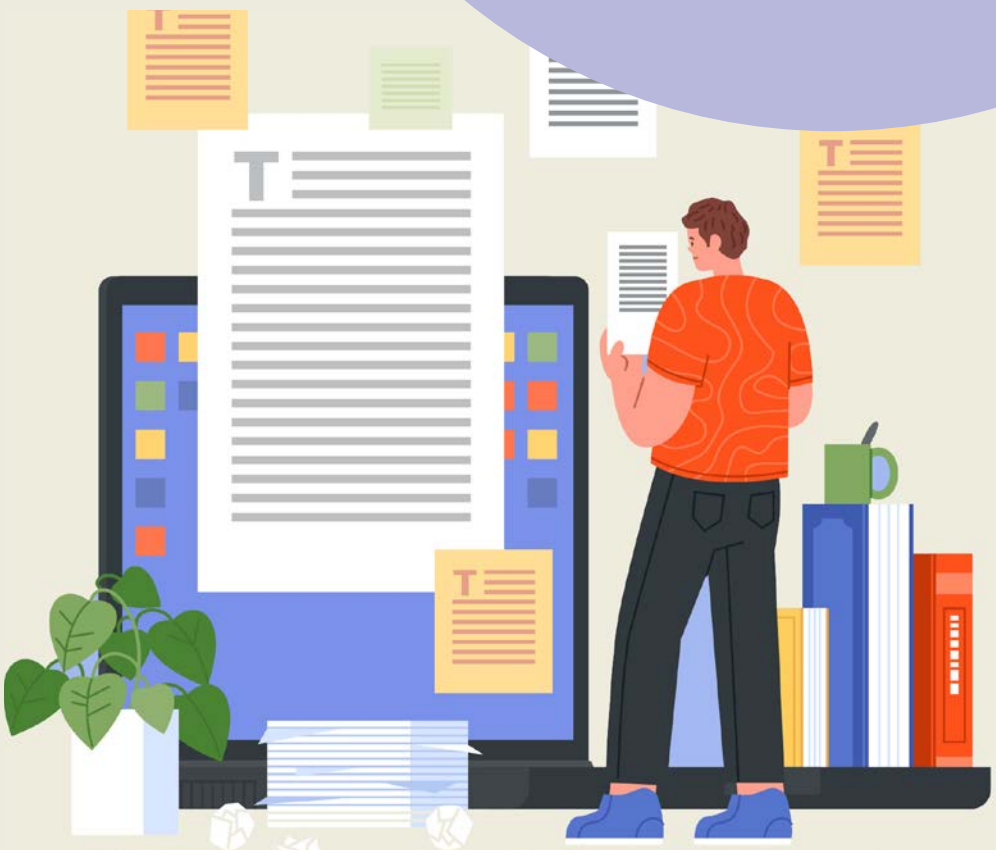
Avoid sub-lists (for example in a list labeled a., b., c., do not add a2., a3., et cetera) and do not interrupt a list with other elements.

2.4 TEXT BOXES

TEXT BOXES SHALL ALWAYS HAVE A TITLE THAT ANTICIPATES THEIR CONTENT.

When inserted within the main text, they can create reading difficulties by interrupting the flow with different content. Text boxes should ideally be placed at the end of the text, chapter, or subchapter, with a reference in the main text if necessary.

Using a simple coloured background to differentiate the text box from the main content, **will not be "detected" by assistive technologies**, leading to unclear and unintuitive reading continuity.



2.5 TABLES: ARE WE USING THEM CORRECTLY?

In cells, numbers indicating thousands should be separated by a dot or comma without gaps!

CREATE SIMPLE TABLES!

The use of tables is widespread in text drafting: they appear in documents across all sectors, in magazines and newspapers, in technical manuals, and in computer science.

Tables must be created using dedicated table tools.

For accessible reading, a table should always include:

- **a title,** placed before the table;
- **a simple header for each column (in the first row),** which helps to clarify the topic;
- **content organised in rows and columns** (organised into cells).

DO NOT LEAVE ANY EMPTY CELLS.

Empty cells can mislead assistive technology into thinking there is no additional information. Even a simple "x" placed inside a cell can be unclear: requiring the user of assistive technology to interpret its meaning. If a cell is to remain without content, it is preferable to use a hyphen.

A table must be readable in an orderly manner both horizontally and vertically; therefore, **merging or splitting cells is not allowed.** Merging cells creates navigation problems within the table, so it is better to repeat the content as needed.

DO NOT INSERT TABLES WITHIN TABLES.

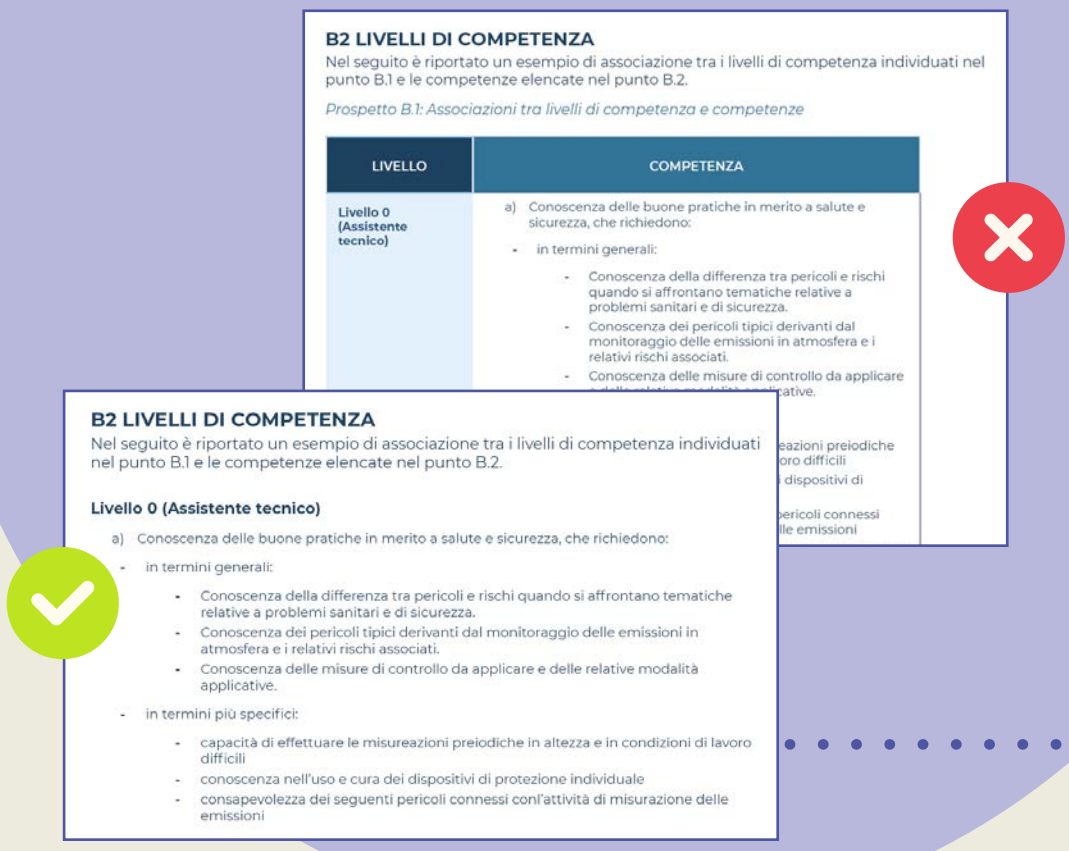
Nested tables are difficult to navigate, especially for users of screen readers.

AVOID PLACING UNITS OF MEASUREMENT IN THE FIRST HEADER LINE.

Units should be repeated in each cell next to the indicated value (for example millimetres, centimetres, kilometres, euros, et cetera), and written out in full. If units of measurement are abbreviated, assistive technology will read them exactly as they are (for example "mm" will be read as "emem" rather than "millimetres").

In cells, numbers indicating thousands should be separated by a dot or comma without gaps (preferably 1.200 or 1,200 instead of 1 200).

DO NOT USE THE TABLE FORMAT FOR SIMPLE TEXT LISTS.



B2 LIVELLI DI COMPETENZA

Nel seguito è riportato un esempio di associazione tra i livelli di competenza individuati nel punto B.1 e le competenze elencate nel punto B.2.

Prospetto B.1: Associazioni tra livelli di competenza e competenze

LIVELLO	COMPETENZA
Livello 0 (Assistente tecnico)	a) Conoscenza delle buone pratiche in merito a salute e sicurezza, che richiedono: - in termini generali: - Conoscenza della differenza tra pericoli e rischi quando si affrontano tematiche relative a problemi sanitari e di sicurezza. - Conoscenza dei pericoli tipici derivanti dal monitoraggio delle emissioni in atmosfera e i relativi rischi associati. - Conoscenza delle misure di controllo da applicare

B2 LIVELLI DI COMPETENZA

Nel seguito è riportato un esempio di associazione tra i livelli di competenza individuati nel punto B.1 e le competenze elencate nel punto B.2.

Livello 0 (Assistente tecnico)

a) Conoscenza delle buone pratiche in merito a salute e sicurezza, che richiedono:

- in termini generali:
  - Conoscenza della differenza tra pericoli e rischi quando si affrontano tematiche relative a problemi sanitari e di sicurezza.
  - Conoscenza dei pericoli tipici derivanti dal monitoraggio delle emissioni in atmosfera e i relativi rischi associati.
  - Conoscenza delle misure di controllo da applicare e delle relative modalità applicative.
- in termini più specifici:
  - capacità di effettuare le misureazioni preiodiche in altezza e in condizioni di lavoro difficili
  - conoscenza nell'uso e cura dei dispositivi di protezione individuale
  - consapevolezza dei seguenti pericoli connessi con l'attività di misurazione delle emissioni

It is incorrect to enclose graphics or images within a table and text tabs should also be avoided.

If necessary, text can be rotated within a cell, such as in the initial header row when there are many columns.

WHAT IF I NEED TO ADD A NOTE TO THE TABLE?

Insert it in each relevant cell, preceded by the word NOTE.

2.6 HOW ARE IMAGES (PHOTOS, GRAPHICS) READ?

Images must always be accompanied by descriptive alternative text that will be read by assistive technology.

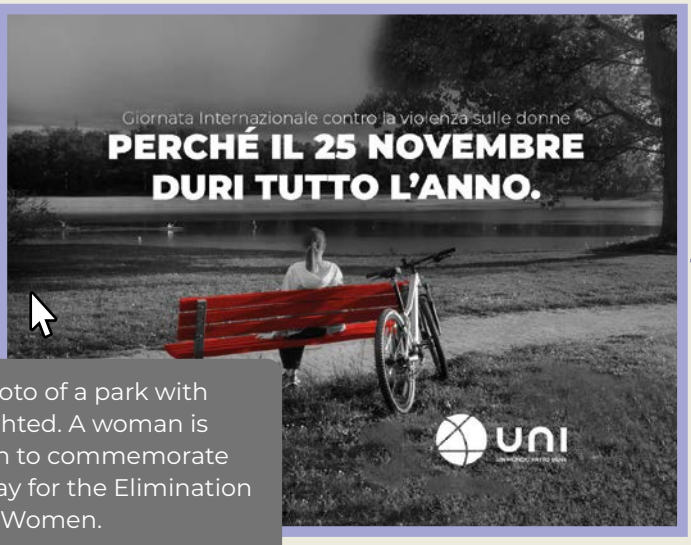
Avoid using the same alternative text for multiple images, as it can causes confusion! If there is a legend, simplify it as much as possible.

If an image contains text, make sure that the same information is included in the document text (in this case, the hidden “alternative” text should indicate the paragraph where that content is located).

If images **are not complemented** with an alternative text, they will be treated as “artefacts”, and the screen reader will ignore them as purely decorative elements.

Graphs and formulae are considered images and also require alternative text.

The image shows an example of alternative text.



Black and white photo of a park with a red bench highlighted. A woman is sitting on the bench to commemorate the International Day for the Elimination of Violence against Women.

The picture also features the UNI slogan: ‘Make November 25th last all year’.

2.7 OPEN DOORS TO LINKS

In case of cross-references to other documents or web pages, insert reference addresses by associating them with one word, several words or an address.

It is important that linked text is concise and meaningful even when read out of the context of the whole sentence. **Users should be able to understand what they will find on the linked page** from the highlighted text alone, **even before accessing it**.

Avoid the use of generic phrases such as “click here”, “see more” or “more information”. Instead, use more intuitive words on the landing page.

For example: instead of saying “issued resolutions are available on the **web page “examplepageaddress”**, use “issued resolutions are available on the page **Resolutions of the site...**”, since URLs are not understandable to users of assistive technology.

Do not place links on images, since screen readers do not recognise them as such.

IT’S NOT A RIDDLE...
PRACTICE EVERY DAY WITH YOUR DOCUMENTS!

ACCESSIBILITY IS A VALUE THAT PROMOTES INCLUSION!

TO LEARN MORE

3.

ISO 24495-1:2023 Plain language - Part 1: Governing principles and guidelines

ISO 14289-1:2014 Document management applications - Electronic document file format enhancement for accessibility - Part 1: Use of ISO 32000-1 (PDF/UA-1)

ISO/IEC 25024:2015 Systems and software engineering - Systems and software Quality Requirements and Evaluation (SQuaRE) - Measurement of data quality

ISO/IEC 25012:2008 Software engineering - Software product Quality Requirements and Evaluation (SQuaRE) - Data quality model

LEGGE 9 gennaio 2004, n. 4 Disposizioni per favorire l'accesso dei soggetti disabili agli strumenti informatici *(Provisions to facilitate and simplify access to IT tools for users and, in particular, for people with disabilities)*

LEGGE 3 aprile 2001, n. 138 Classificazione e quantificazione delle minorazioni visive e norme in materia di accertamenti oculistici *(Classification and quantification of visual impairments and standards for eye examinations)*

LEGGE 12 marzo 1999, n. 68 Norme per il diritto al lavoro dei disabili. (GU Serie Generale n.68 del 23-03-1999 - Suppl. Ordinario n. 57) *(Rules for the right to work of disabled people)*

Directive (EU) 2016/2102 of the European Parliament and of the Council of 26 October 2016 on the accessibility of public sector bodies' websites and mobile applications

Guidelines on the accessibility of IT tools, **AGID Agency for Digital Italy**

AGID Agency for Digital Italy, **Accessibility and Usability**

Accessible documents. Production and publication of a PDF, Agency for Digital Italy, Presidency of the Council of Ministers

European Commission, Employment, Social Affairs and Inclusion, **European Accessibility Act**

UN Convention on the Rights of Persons with Disabilities, 2006

Italian ISO and CEN member

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A **WELL MADE** WORLD