Principles for drafting ETSI deliverables with the use of skeletons

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Preface

The present document is a step-by-step guide aiming to help ETSI rapporteurs and Experts draft ETSI deliverables. It complements the ETSI skeletons, which are pre-built deliverables, already laid out as required and containing essential titles and text blocks. It is the essential foundation for your working document that can be used for any of the Microsoft Word® versions.

For the drafting of ETSI deliverables it is recommended to download the following documents and tools from **_edithelp!_** website:

- The appropriate ETSI skeleton.

- The most recent publication of the ETSI Drafting Rules (EDRs).

- The template and toolbar of ETSI styles.

1 Table of contents and List of figures and/or tables

1.1 Contents

The table of contents named "Contents" is a required element, automatically generated and already included on page 3 of ETSI skeletons.

> Use **TT** style for the title.
> Use the field { TOC \o \w "1-9" } for the table itself.

If it is needed to unlock the table of contents: select the entire Table of Contents, click simultaneously: Ctrl + Shift + F11.
To update the Table of Contents: F9.
To lock it: select the Table of Contents and then click simultaneously: Ctrl + F11.

1.2 List of figures and/or tables

"List of figures" and/or "List of tables" are optional unnumbered informative elements.They can be automatically generated using the field indicated below (one or the other or both). If used they shall appear after the table of contents.

> Use **TT** style for the title.
> Use the field {TOC \t "TF" \c} for the list of figures and the field {TOC \t "TH" \c} for the list of tables.

2 Intellectual Property Rights

This unnumbered clause is the first required informative element and starts on a new page. The textblock is already included in ETSI skeletons and shall not be changed.

3 Foreword

3.1 General information on Foreword

This second unnumbered clause appears on the same page as the IPR clause. It is a required informative element and shall not contain requirements, figures or tables, except for the transposition table in European Standards (ENs) (see clause 3.4). For ENs Harmonised Standards use the specific ETSI EN Harmonised Standard skeletons.

A pre-defined textblock is provided in ETSI Skeletons.

More details about the foreword can be found in ETSI Drafting Rules, clause 2.5. See clause 3.2 of the present document if the draft is a multi-part deliverable.

3.2 Foreword in ETSI multi-part deliverables

For multi-part ETSI deliverables, one of the following options shall be added to explain the relationship between the various parts in the series.

Option a)

In the Foreword of each part belonging to the series, a list of known parts and sub-parts with their titles shall be provided. One of the textblocks below can be used (see note).

Multi-part ETSI deliverables with parts

The present document is part <i> of a multi-part deliverable covering [the] <common element of the title>, as identified below:

> Part 1: "<part element of the title>";
>
> **Part <i>: "<part element of the title>";**
>
> Part <n>: "<part element of the title>".

Multi-part ETSI deliverables containing parts and sub-parts

The present document is part <i>, sub-part <j> of a multi-part deliverable covering [the] <common element of the title>, as identified below:

> Part 1: "<part element of the title>";
>
> **Part <i>: "<part element of the title>";**
>
> > Sub-part 1: "<sub-part element of the title>";
> >
> > **Sub-part <j>: "<sub-part element of the title>";**
> >
> > Sub-part <m>: "<sub-part element of the title>".
>
> Part <n>: "<part element of the title>".
>
> NOTE: the <common element of the title> is the same for all parts;
> the <part element of the title> differs from part to part; and if appropriate;
> the <sub-part element of the title> differs from sub-part to sub-part.

The paragraph identifying the current part (and sub-part, if appropriate) shall be set in **bold**.

See an example in the Foreword of ETSI EN 300 392-3-5 and ETSI TS 101 376-3-22.

Option b)

In the Foreword of a specific part (usually part 1) a detailed list of all parts and/or subparts shall be provided using one of the textblock of option a) and the other parts and/or sub-parts will refer to it using the textblock below:

The present document is part <i>, sub-part <j> of a multi-part deliverable. Full details of the entire series can be found in part <N> [Bookmark reference].

See an example in the Foreword of the ETSI EN 302 217-2-1.

3.3 Additional text

Additional paragraphs, to be included in the Foreword, may be provided by the Technical Body giving as many of the following as are appropriate:

- an indication of any other organization that has contributed to the preparation of the ETSI deliverable;

- a statement that the ETSI deliverable cancels and replaces other documents in whole or in part;

- a statement of significant technical changes from the previous version of the ETSI deliverable;

- the relationship of the ETSI deliverable to other ETSI deliverables or other documents;

- the existence of an electronic attachment accompanying the ETSI deliverables, if this is not mentioned elsewhere.

3.4 Transposition table for ENs

Each European Standard (EN) shall contain a transposition table as the last element in the Foreword. The table is already included in the ETSI skeleton. Harmonised Standards have appropriate transposition periods, see specific ETSI EN Harmonised Standard skeletons.

ETSI Drafting Rules, clauses 2.5.1 and 8.1.

4 Modal verbs terminology

This unnumbered clause is a required informative element that appears after the foreword. The textblock is already included in ETSI skeletons.

ETSI Drafting Rules, clause 2.6.

5 Executive summary

This unnumbered clause is an optional informative element and shall not contain requirements. It appears after "Modal verbs terminology" clause and before the introduction.

The "Executive summary" is used to summarize the ETSI deliverable. It should contain enough information for the readers to become acquainted with the full document without reading it. It is usually one page or shorter.

ETSI Drafting Rules, clause 2.7.

6 Introduction

This unnumbered clause is an optional informative element and shall not contain requirements. The "Introduction" clause may appear after the "Executive summary" clause (if present).

The "Introduction" clause may be used to give specific information or commentary about the technical content of the ETSI deliverable, and about the reasons prompting its preparation.

ETSI Drafting Rules, clause 2.8.

7 Scope

The "Scope" shall start on a new page and is clause number 1 of each ETSI deliverable. It is a required informative element and shall not contain requirements. For Harmonised Standards see also specific ETSI EN Harmonised Standard skeletons.

The "Scope" defines without ambiguity the subject of the ETSI deliverable and the aspect(s) covered, thereby indicating the limits of applicability of the ETSI deliverable or particular parts of it.

Forms of expression such as the following should be used:

The present document …

EXAMPLE: The present document specifies high-level security and data protection provisions for consumer.

ETSI Drafting Rules, clause 2.9.

8 References

8.1 General information on References

"References" is clause number 2 and shall list all the documents cited anywhere in an ETSI deliverable including its annexes. It shall consist of clause 2.1 "Normative references" and clause 2.2 "Informative references".

The appropriate textblocks for clauses 2.1.and 2.2 are already included in ETSI skeletons.

More details about the references can be found in ETSI Drafting Rules, clause 2.10.

8.2 Normative references

8.2.1 Normative references in normative ETSI deliverables (TS, EN (Harmonised and non-Harmonised Standard), ES and GS)

Clause 2.1 in normative ETSI deliverables shall contain exclusively a numbered list of all normative references of an ETSI deliverable. These references have to be publicly available and in English. Documents provided in this list shall be normatively referenced provided that they contain technical requirements. This means that informative documents **shall not** be normatively referenced as they do not contain any normative requirements.

Legal acts can never be used as normative references. For EN Harmonised Standards see also specific ETSI EN Harmonised Standard skeletons.

Use the **EX** style, enclose the number in square brackets and separate it from the title with a tab (you may use sequence fields for automatically numbering references, see ETSI Drafting Rules, clause 6.9.2). Use the **NO** style, if one or more notes accompanies the reference. Separate NOTE: from the text of the note with a tab. The note numbering restart on each reference entry.

EXAMPLE:

If there are no normative references to be listed, add the following text after the textblock provided in the skeleton:

Not applicable.

Otherwise list the references as indicated below:

[1]   <Standard Organization acronym> <document number>*: "*<Title>*". (Style EX)*

NOTE 1:   This is the firts note of reference [1]. *(Style NO)*

NOTE 2:   This is the second note of reference [1]. *(Style NO)*

[2]   ETSI EN 300 163: "Television systems; NICAM 728: transmission of two-channel digital sound with terrestrial television systems B, G, H, I, K1 and L". *(Style EX)*

8.2.2 Normative references in informative ETSI deliverables (TR, EG, SR and GR)

Informative ETSI deliverables do not contain any normative requirements, for this reason no document shall be normatively referenced to throughout the document and/or listed in clause 2.1. The text to be used instead of the textblock is indicated in the skeleton.

8.3 Informative references

Clause 2.2 shall provide a numbered list of all informative references of an ETSI deliverable. "Informative references" lists documents that may be useful in implementing an ETSI deliverable or add to the reader's understanding but which are not required for conformance to the ETSI deliverable.It is preferable that "informative references" are publicly available. Current practice is that the Secretariat will not check the public availability of "informative references".

> Use the **EX** style, add the letter "i" (for informative) before the number (which shall be in square brackets) and separate this from the title with a tab (you may use sequence fields for automatically numbering references, see ETSI Drafting Rules, clause 6.9.2).
> Use the **NO** style, if one or more notes accompanies the reference. Separate "NOTE:" from the text of the note with a tab. The note numbering restart on each reference entry.

EXAMPLE:

If there are no informative references to be listed, add the following text after the textblock provided in the skeleton:

Not applicable.

Otherwise list the references as indicated below:

[i.1]   <Standard Organization acronym> <document number> <V#>: "<Title>". *(Style EX)*

NOTE 1:   This is the firts note of reference [i.1]. *(Style NO)*

NOTE 2:   This is the second note of reference [i.1]. *(Style NO)*

[i.2]   ETSI TR 102 469: "Digital Video Broadcasting (DVB); IP Datacast over DVB-H: Architecture". *(Style EX)*

9 Definition of terms, symbols and abbreviations

9.1 General information on definition of terms, symbols and abbreviations

Clause 3 with its subclauses are required informative elements and shall not contain requirements.

ETSI Drafting Rules, clause 2.11.

All terms and abbreviations, extracted from all published ETSI deliverables, feeds the **Terms and Definitions Interactive Database (TEDDI)** (https://webapp.etsi.org/Teddi/). The Secretariat strongly recommend to consult this database while drafting an ETSI deliverable.

9.2 Terms

The terms list shall:

- not take the form of, or contain, a requirement;

- be presented in alphabetical order;

- have a definition that can replace the terms in context. Additional information shall be given only in the form of examples or notes. If there are several notes or examples for the same term, the notes and examples shall be numbered (see examples below).

The textblock is provided in ETSI skeletons.

> Use the **Normal** style.
> The term shall be in **bold**, and shall start with a lower case letter (unless it is always rendered with a leading capital) followed by a colon, also in bold, one space, and the definition of term starting with a lower case letter and no ending full-stop.
> Use the **NO** style, if one or more notes accompanies a term. Separate NOTE: from the text of the note with a tab. Use **EX** style, for the example. Separate EXAMPLE: from the text of the example with a tab. The note and/or example numbering restart on each term.

EXAMPLE:

If there are no terms to be listed, replace the textblock provided in the skeleton, by:

Void.

Otherwise list the terms after the textblock as indicated below:

communal site: location at which there is more than one fixed transmitter *(Style Normal)*

NOTE: There are two types of communal site; one having separate equipment and antennas but housed in a common equipment room, and the other having an engineered system employing common antenna working where the isolation between equipment is determined by the filter system.
At all communal sites equipment installed on the site meet the limits as specified in the relevant standards. *(Style NO)*

fast channel: channel with low latency but higher BER in comparison to the slow channel *(Style Normal)*

EXAMPLE: In contrast to the slow channel, the fast channel is not interleaved. *(Style EX)*

NOTE 1: This is the firts note of the term. *(Style NO)*

NOTE 2: This is the second note of the term. *(Style NO)*

9.3 Symbols

The symbols list shall:

- contain the symbols and their corresponding explanations;

- be presented in alphabetical order;

- have entries not numbered.

The textblock is provided in the ETSI skeletons.

> Use the EW style and separate this from the definition with a tab.
> Use EX style for the symbol accompanied by note and/or example. Use the NO style, for the note. Separate NOTE: from the text of the note with a tab. Use EX style, for the example. Separate EXAMPLE: from the text of the example with a tab. The note and/or example numbering restart on each symbol.
> Use the EX style for the last symbol.

EXAMPLE:

If there are no symbols to be listed, replace the textblock provided in the skeleton, by:

Void.

Otherwise list the symbols after the textblock as indicated below:

dB decibel *(Style EX)*

NOTE 1: This is the firts note of the symbol. *(Style NO)*

NOTE 2:   This is the second note of the symbol. *(Style NO)*

EXAMPLE: This is the example of the symbol. *(Style EX)*

C   Wanted signal *(Style EW)*
DDI   Direct Dialling-In, or direct dialling-in *(Style EX)*

9.4 Abbreviations

The abbreviations list shall:

- contain the abbreviations and their corresponding full form;

- be presented in alphabetical order;

- have entries not numbered.

The textblock is provided in the ETSI skeletons.

> Use the **EW** style and separate this from the definition with a tab.
> Use **EX** style for the abbreviation accompanied by note and/or example. Use the **NO** style, for the note. Separate NOTE: from the text of the note with a tab. Use **EX** style, for the example. Separate EXAMPLE: from the text of the example with a tab. The note and/or example numbering restart on each abbreviation.
> Use the **EX** style for the last abbreviation.

EXAMPLE:

If there are no abbreviations to be listed, replace the textblock provided in the skeleton, by:

Void.

Otherwise list the abbreviations after the textblock as indicated below:

CCI   Co-Channel Interference *(Style EX)*

NOTE 1:   This is the firts note of the abbreviation. *(Style NO)*

NOTE 2:   This is the second note of the abbreviation. *(Style NO)*

EXAMPLE: This is the example of the abbreviation. *(Style EX)*

DPC   Dynamic Power Control *(Style EW)*
BER   Bit Error Ratio *(Style EX)*

10 Clause numbering

From clause 4, the technical content of the ETSI deliverable shall be inserted. Each clause shall have a title and be placed after its number.

A clause can have numbered subdivisions, e.g. 5.1, 5.2, 5.1.1, 5.1.2, etc. This process of subdivisions may be continued as far as the sixth heading level (e.g. 6.5.4.3.2.1). The sixth heading level and onwards will not be visible in the table of contents).

Every attempt shall be made to use continuous numbering. However, if continuous numbering cannot be kept, a new element shall be inserted in existing text using an appropriate alphanumeric designation that does not disturb the existing numbering scheme. This applies to all elements (e.g. clauses, annexes, figures, tables, notes, lists):

EXAMPLE 1:   It is necessary to update an ETSI deliverable. A new clause needs to be inserted between the existing clauses 8 and 9. A new clause 8a shall be inserted in preference to avoid re-numbering the existing clauses.

Similarly, an existing element may be deleted and replaced with the term "Void" to minimize disruption to the numbering scheme.

EXAMPLE 2:   During the updating of an ETSI deliverable, it is decided that annex C is no longer required. The title of annex C becomes "Void". Later annexes, therefore, remain unchanged.

Automatic numbering **may be used** in ETSI deliverables, if used, shall be applied anywhere in an ETSI deliverable including annexes using the appropriate ETSI styles, otherwise it may corrupt the deliverable.

For an easy application of the ETSI styles download "The ETSI styles toolbar" from *editHelp!* website.
Use the **Heading** style appropriate to its level (see clause 12).
Separate the number of the heading and the text of the heading with a tab.
Treat clause titles as normal text (i.e. **no additional capitalization**), **but** no full stop and no reference bookmarks.

11   Sudivision of clauses

To be able to precisely reference every clause, clauses must have either numbered or unnumbered subdivisions (a paragraph is an unnumbered subdivision of a clause). When a clause or subclause has text below the title, there can be no further subclauses (see examples).

Alternatives 1 and 2 shall be used, alternative 3 shall not be used.

Alternative 1 (shall be used)	Alternative 2 (shall be used)	Alternative 3 (shall not be used)
5 Title **5.1 Title** Paragraphs **5.2 Title** Paragraphs **5.3 Title** Paragraphs **6 Test report**	**5 Title** Paragraph 1 Paragraph 2 … Paragraph n **6 Test report**	**5 Title** **Paragraph 1 (text that cannot be precisely referenced)** **Paragraph 2 (text that cannot be precisely referenced)** **5.1 Title** Paragraphs **5.2 Title** Paragraphs **6 Test report**

ETSI Drafting Rules, clause 2.12.1.

12   ETSI Styles

Use this style	For this type of element
Heading styles	For different headings
Heading 1	Clause
Headings 2 to 5	Subdivision level 2 to 5
H6	Subdivision level 6 (not reflected in the table of contents)
Heading 8	Annex title (for ENs, HSs, TSs, ESs and GSs only)
Heading 9	Annex title (for TRs, EGs, GRs and SRs only)
Example styles	For examples and abbreviations/symbols lists
EX	Reference, Example =>
EW	Symbol, Abbreviation, Example continuation in text =>
Note style	
NO	Note integrated in the text =>
Figure styles	For formatting figures
TF	Figure title
FL	Figure layout
NF	Note in figure =>
Table styles	For formatting tables
TH	Table title
TAH	Heading within table or column heading
TAC	Centred texts
TAL	Left aligned text
TAR	Right aligned text
TB1	List in tables Level 1
TB2	List in tables Level 2
TAN	Note in table =>
List styles (indents)	
B1 to B5	Indent 1 to 5
B1+	Bulleted indent 1 (round bullets)
B2+	Bulleted indent 2 (dashes)
B3+	Bulleted indent 3 (square bullets)
BN	Bulleted (numbers) indent 1
BL	Bulleted (letters) indent 1
General styles	For different items
Normal	Standard paragraph, Definition
TT	Contents list title
PL	Programming language
EQ	Equation
Header	Header (portrait and landscape pages)
Style which can be user-defined	For formatting defined by the user that will not be altered by the ETSI processing macros
FP	Free Paragraph
=>	means that a "tab" shall be used between "item/number" and "text".

13   Notes and examples

Notes and examples integrated in the text shall only be used for giving additional information intended to assist the understanding or use of the ETSI deliverable. Notes and examples **shall not** contain requirements except when they are included in table or figures.

ETSI Drafting Rules, clause 5.5.

A single note in a clause shall be preceded by "NOTE" in upper case. When several notes occur within the same element (e.g. clause, figure or table), they shall be designated "NOTE 1:", "NOTE 2:", "NOTE 3:", etc. For notes included in "References" and "Definition of terms, symbols and abbreviations" clauses, see clauses 8 and 9. For notes included in tables and figures see clauses 15 and 16.

For added or removed notes further to the revision of a deliverable, see clause 10.

> Use the **NO** style.
> Separate NOTE: from the text of the note with a tab.

EXAMPLE:

NOTE 1: Text formatted with the **NO** style will be formatted **with** a space after the paragraph. *(Style NO)*

NOTE 2: This is the second note contained in a clause. *(Style NO)*

A single example in a clause shall be preceded by "EXAMPLE:" in upper case. When several examples occur within the same element (e.g. clause, figure or table), they shall be designated "EXAMPLE 1:", "EXAMPLE 2:", "EXAMPLE 3:", etc. For examples included in "Definition of terms, symbols and abbreviations" clause, see clause 9 of the present document.

For added or removed examples further to the revision of a deliverable, see also clause 10 of the present document.

When there is a danger that it may not be clear where the example ends and the normal text continues, then the end of the example may be designated by "END of EXAMPLE".

> Use **EX** style.
> Separate EXAMPLE: from the text of the example with a tab.

EXAMPLE:

EXAMPLE 1:   This is the first example of the clause. *(Style EX)*

EXAMPLE 2:   This is the second example of the clause. *(Style EX)*

END of EXAMPLE.

14   Lists

Lists may be introduced by a sentence, a complete grammatical proposition or by the first part of a proposition, completed by the items in the list.

Each item in a list shall be preceded by a bullet, a dash, an Arabic numeral followed by a parenthesis, or a lower case letter followed by a parenthesis.

> Use the appropriate bullet styles, i.e. styles **B1** to **B5** or **B1+** to **B3+**, **BN**, **BL** (see ETSI styles in clause 12).
> Separate the list item identifier (e.g. bullet) and the text with a tab (if using styles **B1** to **B5**, the others are automatic bullet styles containing the space).
> Ensure that the formatting of the lists is consistent throughout the deliverable.

EXAMPLE 1:

- list item 1
- list item 2
- list item 3

EXAMPLE 2:

1) List item 1.
2) List item 2.
3) List item 3.

EXAMPLE 3:

a) List item a.

b) List item b.

c) List item c.

EXAMPLE 4:

- list item 1;

- list item 2;

- list item 3.

EXAMPLE 3:

▪ list item 1;

▪ list item 2;

▪ list item 3.

EXAMPLE 6:

• list item 1:

- list item 2:

▪ list item 3

"And" or "or" shall be used at the end of the penultimate element of a list to indicate unambiguously whether all the elements apply ("and") or whether they are mutually exclusive ("or").

15 Figures

15.1 Layout of figures

Figures shall be prepared in accordance to ETSI Drafting Rules, clauses 5.1 and 7.2 for SDL and MSC diagrams. Details concerning "Supported file formats" are available on the *editHelp!* website. For an easy application of the ETSI styles, download "the ETSI styles toolbar" from the *editHelp!* website and see clause 12 of the present document.

• The figure number and title shall be below the figure. An explicit figure title is optional.

• Notes to figures shall be treated independently from notes integrated in the text and may contain requirements. They shall be located before the title of the relevant figure.

• To generate a list of figures see clause 1.2.

Use **TF** style for the figure number and title.
Use **FL** style on the paragraph which contains the figure itself.
Use **NF** style for the notes to figures. Separate "NOTE:" from the text of the note with a tab. The note numbering restart on each figure.
If applicable, the figure number is followed by a colon, a space and the figure title.
Maximum width for figures is 17 cm and maximum height is 22 cm.
For automatic figure numbering see ETSI Drafting Rules, clause 6.9.2.

EXAMPLE:

Quantity of deliverables published

(Style FL)
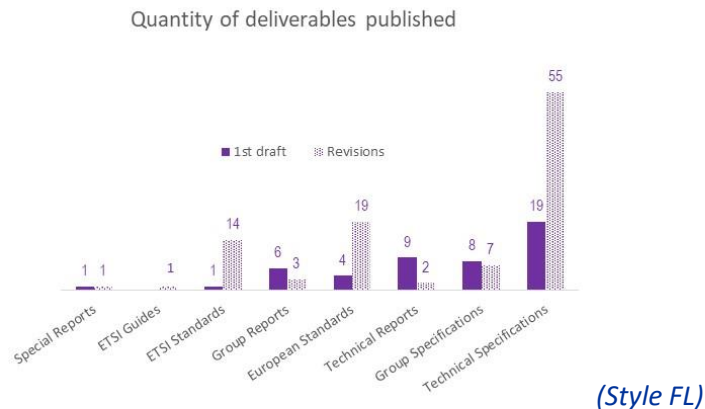
NOTE: This is a note to figure 1. *(Style NF)*

Figure 1: Details of apparatus *(Style TF)*

15.2 Figure numbering

Figures may be numbered sequentially throughout the ETSI deliverable without regard to the clause numbering, e.g. first figure is figure 1 and the twentieth figure is figure 20.

Figures may also be numbered taking account of clause numbering.

EXAMPLE 1:   First figure in clause 5 is figure 5.1, second figure in clause 5.1.1 is figure 5.2, third figure in clause 5.2.3 is figure 5.3.

EXAMPLE 2:   First figure in clause 7 is figure 7.1, fifth figure in clause 7 is figure 7.5.

EXAMPLE 3:   First figure in clause 7.3.2 is figure 7.3.2.1, fifth figure in clause 7.3.2 is figure 7.3.2.5.

One level of subdivision may only be used (e.g. figure 1 may be subdivided as 1 a), 1 b), 1 c), etc.).

Figures of an annex shall be preceded by the letter designating that annex followed by a full-stop (e.g. figure B.1, figure C.4). The numbering shall start afresh with each annex.

For added or removed figures further to the revision of a deliverable, see also clause 10.

15.3   How to insert a figure

If there is a need to insert a figure, from another source document, in an ETSI deliverable be aware that, ETSI deprecates the reproduction of third parties material in an ETSI deliverable (see clause 23.3).

If you are authorized by the author to reproduce the figure, the steps below should be followed to avoid figures to be corrupted or lost:

- Right-click the figure you want to copy from the source document.

- In the destination document, select "Insert" - "Object", and the appropriate graphical tool (e.g. Microsoft® Word Picture).

- MS Word opens the graphical software window: select "Edit" - "Paste Special" and choose the required output format.

- After closing this window, the figure appears as an object embedded into the Word document, which allows safe further edits.

16 Tables

16.1 Layout of tables

Tables shall be prepared in accordance to ETSI Drafting Rules, clause 5.2. For an easy application of the ETSI styles, download "the ETSI styles toolbar" from *editHelp!* website and see clause 12.

- The table number and title shall be above the table itself. An explicit table title is optional.

- The first word in the heading of each column shall begin with a capital letter. The units used in a given column shall generally be indicated within the column heading.

- If the table continues over more than one page, the column headings **shall** be repeated on all pages after the first.

- Notes to tables shall be treated independently from notes integrated in the text and may contain requirements. They shall be located within the frame of the relevant table at the bottom.

- To generate a list of tables see clause 1.2.

Use **TH** for the table number and title.
Use **TAH** for table headings
Use **TAL** for text left aligned
Use **TAC** for text centred
Use **TAR** for text right aligned
Use **TAN** for the note to table. Separate NOTE: from the text of the note with a "Ctrl" + "→" (tab). Include notes to a table within its borders in one cell, at the bottom. The note numbering restart on each table.
Use TB1 for the list of level 1
Use **TB2** for the list of level 2
If applicable, the table number is followed by a colon, a space and the table title.
To repeat the column heading on all pages, use the table headings tool (Select the header of the table, and then in the toolbar: Table tools/Layout/Repeat Header Rows).
For automatic figure numbering see ETSI Drafting Rules, clause 6.9.2).

Centre tables horizontally.
The "space between columns" is 0,1 pt or 0,05 cm (default cell margins Left 0,05 pt & Right 0,19 pt).
Maximum width for tables in portrait orientation: 17 cm and for landscape orientation: 22 cm.
Set table columns widths in centimetres (not inches).
Use borders to separate the rows and columns of tables, as appropriate; the precise format will depend on the structure of each table, but be consistent throughout a deliverable (or series of related deliverables). Borders should be ¾ pt single line.
Each table shall be followed by an empty "Normal" style paragraph (↵ "Enter" key).

EXAMPLE:

Table 1: Electrical properties *(Style TH)*

Type *(Style TAH)*	Linear density (kg/m) *(Style TAH)*	Inside diameter (mm) *(Style TAH)*	Outside diameter (mm) *(Style TAH)*
Text *(Style TAL)*	Text *(Style TAC)*	Text *(Style TAR)*	
NOTE 1: This is a note to table. *(Style TAN)* NOTE 2: This is a merged cell. *(Style TAN)*			

16.2　　　Table numbering

The same rules of the figure numbering are applicable, see clause 15.2.

17　　Mathematical formulae

17.1　　　Layout of equations

Mathematical formulae shall be prepared in accordance to ETSI Drafting Rules, clause 5.3. Details concerning tools that shall be used for editing "Mathematical formulae" are available on ***editHelp!*** website.

For an easy application of the ETSI styles, download "the ETSI styles toolbar" from ***editHelp!*** website and see clause 12.

> Use **EQ** style.
> Insert one tab before the equation to centre it.
> For automatic equation numbering see ETSI Drafting Rules, clause 6.9.2.

17.2　　　Equation numbering

If it is necessary to number some or all of the formulae in an ETSI deliverable in order to facilitate cross-referencing, Arabic numbers in parentheses shall be used, beginning with 1:

EXAMPLE 1:

$$x^2 + y^2 < z^2 \text{ (Style EQ)} \tag{1}$$

Equations may be numbered sequentially throughout the ETSI deliverable without regard to the clause numbering, e.g. first equation is equation 1 and the twentieth equation is equation 20.

Equations may also be numbered taking account of clause numbering.

EXAMPLE 2:　　First equation in clause 5 is equation 5.1, second equation in clause 5.1.1 is equation 5.2, third equation in clause 5.2.3 is equation 5.3.

EXAMPLE 3:　　First equation in clause 7 is equation 7.1, fifth equation in clause 7 is equation 7.5.

EXAMPLE 4:　　First equation in clause 7.3.2 is equation 7.3.2.1, fifth equation in clause 7.3.2 is equation 7.3.2.5.

Equations of an annex shall be preceded by the letter designating that annex followed by a full-stop (e.g. equation B.1, equation C.4.1). The numbering shall start afresh with each annex.

For added or removed equations further to the revision of a deliverable, see also clause 10.

18   Dimensions and tolerances

Dimensions and tolerances shall be indicated in an unambiguous manner.

NOTE: In the text below, ° represents the non-breaking space character.

EXAMPLE 1:   80 mm°×°25 mm°×°50 mm (not 80 × 25 × 50 mm).

EXAMPLE 2:   80 µF°±°2 µF or (80 ± 2) µF.

EXAMPLE 3:   16 kbit/s to 64 kbit/s (not 16 to 64 kbit/s).

EXAMPLE 4:   0 °C to 10 °C (not 0 to 10 °C).

EXAMPLE 5:   X = [1..8].

In order to avoid misunderstanding, tolerances on percentages shall be expressed in a mathematically correct form.

EXAMPLE 6*:*   Write "from 63°% to 67°%" to express a range.

EXAMPLE 7:   Write "(65°±°2)°%" to express a centre value with tolerance.
The form "65°±°2°%" shall not be used.

19   Quantities, units, symbols and signs

The units in which any values are expressed shall be indicated. For your information guidelines on quantities and units are available in ISO 80000-2.

20   Representation of numbers and numerical values

The decimal sign shall be a comma. The thousand separator shall be a space.

NOTE 1:   In the text below, ° represents the non-breaking space character.

If a value less than 1 is written in decimal form, the decimal sign shall be preceded by a zero.

EXAMPLE 1:   0,001.

Each group of three digits reading to the left of a decimal sign shall be separated by a space from preceding digits or following digits respectively, except for four-digit numbers designating years.

EXAMPLE 2:   23°456   2°345   2,345   2,345 6   2,345 67   but the year 1997.

For clarity, the symbol × or a lower case x (rather than a point or any other symbol) shall be used to indicate multiplication of numbers and numerical values.

EXAMPLE 3:   Write 1,8°×°10-3 (not 1,8 * 10-3 or 1,8 • 10-3 or 1,8 . 10-3).

NOTE 2:   The exception are vector values because it makes a difference whether multiplying with a "×" (scalar value) or with a "•" (vector value).

To express numbers of items (as opposed to numerical values of physical quantities), the numerals one to nine shall be spelt out in full.

EXAMPLE 4:   "Carry out the test on five tubes, each 5 m long."

EXAMPLE 5:   "Select a further 15 tubes for the pressure test."

Preserve document identities as in the original titles.

> EXAMPLE 6:   ISO/IEC°10531-1 (not ISO/IEC 10°531-1).

> EXAMPLE 7:   ES°201°150.

Put a non-breaking space between a number and its unit - including the percent sign (%) - even if the unit is not abbreviated:

> EXAMPLE 8:   2ºpages 4ºseconds 15º%.

Write a number preceded by a unary operator (sign) without an intervening space, except for ≤, ≥, >, <:

> EXAMPLE 9:   a level of -3°dB …

> EXAMPLE 10:   > 3 dB

Put a non-breaking space both before and after binary operators (+, -, ×, etc.):

> EXAMPLE 11:   a°+°b°=°c.

Use non-breaking spaces ("Ctrl" + "Shift" + space) for the thousand separator, before and after binary operators and preceding units.

Use a non-breaking hyphen for the minus sign:

- For AZERTY keyboard ("Ctrl" + 8)

- For QUERTY keyboard "Ctrl" + "Shift" + "hyphen (_)

21   Supplementary files

If supplementary files accompany an ETSI deliverable, it is necessary to indicate where the files are made available.

If the supplementary files are made available via the online platform Forge, see example 1.

> EXAMPLE 1

The supplementary files, relating to the present document, are located at https://forge.etsi.org/rep/mec/gs012-rnis-api.

More details on Forge are available on the *editHelp!* website.

If the supplementary files are contained in a .zip file which accompanies the document, a disk symbol will be added on the first page (this is already included in ETSI skeletons).

> EXAMPLE 2:

The TTCN-3 code corresponding to the ATS is contained in archive ts_10262403v010101p0.zip which accompanies the present document.

22   Pro forma copyright release text block

If an ETSI normative deliverable contains a pro forma or template which is intended to be copied by the user, a copyright release text block shall be added. Such an element shall always start on a new page.

The text block below shall immediately follow after the heading of an element (i.e. clause or annex) containing a pro forma or template which is intended to be copied by the user.

<N> or <L.N> The right to copy

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the <proformatype> pro forma in this {clause|annex} so that it can be used for its intended purposes and may further publish the completed <pro formatype>.

23   Important legal issues

23.1   Neutrality and impartiality

ETSI deliverables should be written in an objective manner, it is important that ETSI is impartial and not seen to be endorsing any one product, company or service over others.

ETSI Drafting Rules, clause 1.10.

23.2   Trade names and trademarks

To the extent possible, the use of trademarks in ETSI deliverables will be avoided, as stated in ETSI Drafting Rules, clause 4.2.

If the use of trademarks cannot be avoided, you are required to:

- ensure these trademarks/trade names are mentioned only as a citation, without claiming any rights to them;

- use the ™ and ® symbols appropriately.

- The question about the right symbol to use (™ or ®) should be directed to the trademark owner, as he knows about the actual status of his rights.

- you shall inform the ETSI legal department who will assess the associated risk, and provide the appropriate recommendation for trademark usage including the eventual requirement to request the associated trademark and/or copyright license.

Further details can also be found in the file "Manual of signs" available on the ***editHelp!*** website.

23.3   Use and reproduction of text, signs and material legally protected

By nature, copyrights may apply to different kinds of material regardless of their merit, e.g. a text, a figure, a photograph, a software source code, etc.

ETSI Drafting Rules, clause 4.3.

The use and reproduction of third parties text, signs and material legally protected are strongly deprecated in ETSI deliverables. The following shall be taken into account:

- **Referencing an information:** is the privileged and recommended way forward in ETSI Drafting rules, the title, name of the owner and source of the information shall be clearly indicated.The referencing does not require authorization unless there are contrary requirements from the owner. the referenced information shall be publicly available.

- **Citing an information with small quotes:** the referenced information, as indicated in the previous bullet, can be accompanied by very few quotes from the source document. The citing would not require an authorization from the owner (same conditions than for the referencing, are applicable).

- **Reproducing information "as is" without modification:** the owner's authorization is required except when the owner clearly indicates that its information is freely reproduceable without further request. This authorization needs to be confirmed in writing.

- **Reproducing and modifying an information:** the owner's authorization is required. Sometimes this authorization could also be given in a clear notice of the owner allowing modification of its work without further request. This authorization needs to be confirmed in writing.

To help you obtain the author's authorization, please use the template below:

Dear *[Name of the contacted person]*,

I am contacting you in my capacity as Rapporteur for ETSI *[Type and reference of the ETSI Deliverable]* drafted by ETSI *[Name of the TB/ISG]*.

We would like to reproduce the following part of *[Name and reference of the copyrighted work]* in ETSI *[Type and reference of the ETSI Deliverable]* that is intended to be published on *[Date of publication]*.

We consider that it will better serve the purpose of *[Type and reference of the ETSI Deliverable]* if we reproduce your *[Name of the copyrighted text/figure intended to be reproduced]* instead of a simple citation providing the reference and source of your work.

If you agree with this reproduction in ETSI *[Type and reference of the ETSI Deliverable]* including future releases and versions, we kindly ask you to provide us with the corresponding written copyright authorization to the profit of ETSI, at your earliest convenience.

Thanking you in advance for your feedback if possible by the *[Deadline]*, I am at your disposal should you need any further clarification.

In case of a negative reply from you or in the absence of reply, we will not reproduce your work and will simply cite your *[Name and reference of the copyrighted work]* indicating the source.

With best regards,

[Rapporteurs name and signature]

24   Annexes

Each annex **shall:**

- start on a new page (insert a page break between annexes A and B, annexes B and C, etc.);

- be designated by a heading comprising the word "Annex" followed by a capital letter designating its serial order, beginning with "A";

- have its heading followed by the indication "(normative):" or "(informative):" (in TS, EN, ES and GS only), and by the title on the next line.

ETSI Drafting Rules, clauses 2.13.

Numbers given to the clauses, tables, figures and mathematical formulae of an annex shall be preceded by the letter designating that annex followed by a full-stop. The numbering **shall start afresh with each annex**. A single annex shall be designated "Annex A". For added or removed annexes further to the revision of a deliverable, see also clause 10.

Clauses in annex A shall be designated "A.1", "A.2", "A.3", etc.

Use the **Heading 8** style for TS, EN, ES and GS
Use the **Heading 9** style for TR, EG, SR and GR.
Insert a line break ("shift" + ↵ "enter") between the colon and the title.
For all annex clause headings use the appropriate Heading styles, starting from **Heading 1,** e.g. for clause A.1 use **Heading 1**, for clause A.1.1 use **Heading 2**. (See clause 12).

25 Bibliography

This annex is an optional informative element and shall not contain requirements. The "Bibliography" annex **shall** start on a new page and be the last annex of an ETSI deliverable or the last but one if followed by the "Change history/Change request history" annex, if any. The Bibliography **shall include** a list of standards, books, articles, or other sources on a particular subject which are not cited anywhere in an ETSI deliverable including annexes.

These publications might or might not be publicly available (no check is made by the Secretariat).

The Bibliography shall not include documents listed in clause "References".

ETSI Drafting Rules, clause 2.14.

> Use **Heading 8** style for the "Bibliography" of TS, EN, ES, GS
> Use **Heading 9** style for the "Bibliography" of TR, EG, SR, GR
> For the listed material use the **Normal** style or bulleted lists (e.g. **B1+**), do not use numbered references.

EXAMPLE:

WEAVER, William. "Command performances". December 1985, vol. 42, n° 12, p. 126-133). *(Style Normal)*

- ETSI EN 300 066: "ElectroMagnetic Compatibility and Radio Spectrum Matters (ERM); Float-free maritime satellite Emergency Position Indicating Radio Beacons (EPIRBs) operating in the 406,0 MHz to 406,1 MHz frequency band; Technical characteristics and methods of measurement". *(Style B1+)*

26 Change History

This annex is an optional informative element and shall not contain requirements. The "Change history/Change request (history)" annex shall start on a new page and be the last annex before the "History" clause. For Harmonised Standards this annex is required and shall be included in every revised or amended harmonised standard (see specific Harmonised Standard skeletons).

The "Change history/Change request (history)", if present, describes the list of changes implemented in a new version of the ETSI deliverable. It shall be presented as a table.

EXAMPLE:

Date	Version	Information about changes
July 2018	1.1.1	First publication of the TS after approval ETSI TC LI#48.
October 2019	1.2.1	Included Change Requests: TS103462CR001 Correction of Timestamp and clarification of payload aggregation. This CR was agreed by TC LI#52 (15-17 October 2019, Turin). Version 1.2.1 prepared by Rapporteur.

27 History

This final unnumbered clause is a required informative element, shall start on a new page and and shall not contain requirements. The History box is provided in ETSI Skeletons.

The "History" shall be prepared in accordance to ETSI Drafting Rules (EDRs), clause 2.16.

Use **Heading 1** style for the title.

EXAMPLES:

Document history		
V0.0.5	April 2019	Pre-Processing done before TB approval e-mail: mailto:edithelp@etsi.org
V1.1.1	July 2019	Publication
V2.0.0	March 2020	Clean-up done by *editHelp!* e-mail: mailto:edithelp@etsi.org
<Version#>	<Month Year>	EN Approval Procedure AP YYYYMMDD: yyyy-mm-dd to yyyy-mm-dd
V1.2.1	March 2021	Vote V YYYYMMDD: yyyy-mm-dd to yyyy-mm-dd
<Version#>	<Month Year>	Membership Approval Procedure MV YYYYMMDD: yyyy-mm-dd to yyyy-mm-dd