

# Annexure A

## eBook/ePub Technical Requirements

## **Introduction**

This document provides the general conversion guidelines and technical requirements to be valued for the creation of electronic publications (e-books). This document may be adapted according to the evolution of the market.

The institutional style guide NBT must be respected.

## ***Global Technical Specifications***

### ***Format***

The electronic publications must be delivered in EPUB format unless other format is specified on the order form.

EPUB files must be compliant with the EPUB format specifications (<http://idpf.org/epub>).

The types of EPUB files requested could be:

- EPUB file with reflowable text

or

- EPUB file with fixed layout.

The variability of screen dimensions shall be taken into account when producing the electronic publication.

### ***File names***

One EPUB file must be delivered per each linguistic version requested. The catalogue number must be the file name of the EPUB file.

### ***Supporting files***

Large versions of images, graphics, illustrations, animations, tables or other supporting documents must be included in the package as separate files and linked to them from the main content file.

Content files inside the EPUB container will be compliant to size limits so as to allow optimal reading on different devices.

## Metadata

### Metadata as properties of the file

The EPUB files must include the following set of descriptive metadata as properties of the file:

Metadata	Description	Tag	Attribute	Format	Mandatory/Optional
Title	Title of the publication	<dc:title>			Mandatory
Author Service	Institution and General Directorate	<dc:creator>	opf:role = "pbd" ( <i>publishing director</i> )	Institution. DG (values must be conform to the authority table "corporate bodies")	Mandatory
Author (person)	Name of the person	<dc:creator>	opf:role = "aut" ( <i>author</i> )	Surname, Name	Optional
Language	<u>ISO 639-3 code for the language</u>	<dc:language >			Mandatory
Publisher	"Publications Office of the National Book Trust"	<dc:publisher>			Mandatory
Publication Date	Date of the publication of the <u>EPUB version</u> .	<dc:date>		It must contain at least a four-digit year, but may be followed by an optional two-digit month and an optional two-digit day, in the format YYYY-MM-DD	Mandatory
ISBN	ISBN of the e book (different from the print version).	<dc:identifier >	opf:scheme="ISBN"		Mandatory
DOI	DOI of the e-book (different from the print version).	<dc:identifier >	opf:scheme="DOI"		Mandatory
ISSN	ISSN of the e book (different from the print version).	<dc:identifier >	opf:scheme="ISSN"		Optional
Description	If available, summary of the	<dc:description>			Optional

Metadata	Description	Tag	Attribute	Format	Mandatory/Optional
	publication which appear as part of the content.				
Keywords	Classification themes	<dc:subject>			Mandatory
Format	Version of EPUB	<dc:format>		e.g. EPUB 2.0	Mandatory
Rights	Copyright sentence	<dc:rights>			Mandatory
Contributor	If any, contributors to the content of the publication	<dc:contributor>			Optional
Source	If provided by the OP	<dc:source>			Optional
Relation	If provided by the OP	<dc:relation>			Optional
Coverage	If provided by the OP	<dc:coverage>			Optional
Audience	If provided by the OP	<dc:audience>		values must be conform with the authority table "target audience"	Optional

### ***Metadata as part of the content***

#### ***ISBN***

According to the institutional Style Guide of NBT, in the case of a publication in different formats, only one ISBN is required if they are packaged together; however if they are distributed separately, each version must be assigned an ISBN. Furthermore, all ISBNs must be listed together in each version, with a brief indication of the format in brackets.

Therefore the EPUB files must include as part of the copyright page both ISBNs from the paper version (if existing) and the EPUB version, as example:

ISBN 978-951-45-9693-3 (paperback)

ISBN 978-951-45-9694-0 (EPUB)

#### ***ISSN***

According to the institutional Style Guide of NBT, similar rules apply for the ISSN, as example:

ISSN 1830-8805 (printed version)

ISSN 1830-8806 (EPUB)

## ***DOI (Digital Object Identifier)***

The EPUB files must include as part of the copyright page only the DOI of the EPUB file, which is different from the print version.

The display of a DOI should be as in the following example:

doi:10.2776/47238

where the number must be a clickable link.

## ***Catalogue number***

All works created by the Publications Office are assigned an internal identifier, i.e. a catalogue number.

The catalogue number must be displayed at the end of the e-book, immediately before the logo of the Publications Office, left aligned.

## ***Specifications for EPUB with reflowable text***

### ***Structure***

The EPUB file must respect the order of the pages of the input content, with the exception of the back cover, which in some cases must be placed right after the front cover.

### ***Table of Content***

The EPUB file must allow the automatic generation of the Table of Content (TOC) by the different devices. The TOC must be navigational, allowing the reader to move directly from the TOC to a specific section of the electronic publication by clicking on the desired item (front matter, back matter or main content). The TOC will only display up to three levels.

Beyond three levels, pages for the display of subsequent levels must be created and placed at the beginning of the corresponding section. Any references to page numbering must be removed.

The first item on the TOC must be the title of the publication and point to the front cover. If the front and back matter pages have their own header, it must be displayed in the TOC. The copyright page must be present on the TOC, using the following labels:

<b>Language</b>	<b>Copyright page</b>
<b>BG</b>	Авторско право
<b>ES</b>	Página de derechos de autor
<b>CS</b>	Tiráž
<b>DA</b>	Copyright
<b>DE</b>	Impressum
<b>ET</b>	Autoriõiguste lehekülg
<b>EL</b>	σελίδα πνευματικών δικαιωμάτων
<b>EN</b>	Copyright page
<b>FR</b>	Page de copyright
<b>GA</b>	Leathanach cóipchirt

<b>Language</b>	<b>Copyright page</b>
<b>IT</b>	Pagina del copyright
<b>LV</b>	Autortiesību lapa
<b>LT</b>	Autorių teisių puslapis
<b>HU</b>	Kolofón
<b>MT</b>	Paġna tad-dritt tal-awtur
<b>NL</b>	Copyrightbladzijde
<b>PL</b>	Metryka książki
<b>PT</b>	Página de direitos de autor
<b>RO</b>	Pagină de copyright
<b>SK</b>	Impresum
<b>SL</b>	Kolofon
<b>FI</b>	Copyright-sivu
<b>SV</b>	Copyrightsida

### ***Front cover***

The front cover of the publication must be visualized on the library of the e-reader. In addition, the front cover must be also the first page of the electronic publication.

The front cover must be captured as image.

### ***Back cover***

In the case that the back cover contains a blurb, the back cover will be placed right after the front cover and will be captured as content (text and images, if any). The background image, if any, will not be captured.

Otherwise the back cover will be captured as image and located at the end of the electronic publication.

Identifiers, bar codes, QR codes and The Publications Office logo present on the back cover must not be captured as part of the back cover.

### ***Title page***

Title page must be captured as text respecting wherever possible the original layout.

### ***Copyright page***

The copyright page must respect the layout of the original input content, information must be left aligned. Only one copyright page will be present on the EPUB file. The sentence "Cataloguing data can be found at the end of this publication" will be removed.

Identifiers ISBN and DOI must follow the requirements described in the section "Metadata" of this document.

Superfluous mentions with regard to the print version must be removed. As examples, any reference to the printed publication:

- paper dimensions;

- total number of pages;
- type of paper;
- printing location;
- price, etc.

### ***Other front and back matter pages***

Other front and back matter pages (note to the reader, bibliography, glossary, references, etc.) must be one individual item on the table of content.

### ***Logo of the NBT Publications Office***

The last element of the electronic publication must be the logo of the Publications Office in the corresponding language. The logo must be left aligned.

### ***Chapter pages***

Chapter pages may include chapter number or identification, chapter header and chapter introductory text. Chapter pages must be captured as text respecting wherever possible the original layout.

In the case of chapter pages with colour identity, the chapter number and chapter header will be placed as text in the closest colour to the input colour.

In the case of chapter pages with strong graphical identity, an image representing the graphical identity will be created and placed centered and immediately after the chapter number and chapter header.

### ***Pages not to be captured***

The following are pages not to be captured:

- Table of content. The TOC must be rebuilt allowing proper linking to the content;
- Repeated table of contents present within the main content;
- Cataloguing page;
- Blank pages;
- Irrelevant pages for electronic dissemination (as example pages to write notes).

### ***Removal of page numbering***

Any explicit reference to page numbers must be replaced by a cross-reference to the relevant content. As example "see page 6" should be replace by a linkable "see \*".

### ***Layout***

#### ***Columns***

Any layout with multiple columns will be transformed into one-column layout.

## ***Body text***

The alignment of the body text must be as in the input content. Margins, tabulators and spaces between paragraphs, lines, bullets or list elements, etc. must be respected.

## ***Fonts***

Common font families, listed among the display options of e-readers, must be used consistently throughout the main body of the text.

Special characters must be detected and the corresponding fonts must be embedded, ensuring the correct visualization of the linguistic versions of the publication.

Fonts sizes must respect a logical proportionality (e.g. font size of a footnote reference must be smaller than the main body text) and be used consistently throughout the electronic publication and all linguistic versions.

## ***Headings***

Headings must be centered.

The hierarchy of the headings must be respected and be consistent throughout the electronic publication and all linguistic versions.

The different levels of headings must be visually distinct from each other. Changing one aspect of the font (e.g. face, case or slope) should be sufficient and preferable to using a mix of font faces or doubling-up differences (e.g. changing both font size and colour).

## ***Typography***

Several elements within the electronic publication such as chapter titles, headings and subheadings, captions, lists, notes and references may require a special typographic treatment.

These elements shall be set apart from the rest of the text through the creation and application of CSS styles. In order to be rendered successfully by any e-reader, the number of existing character and paragraph styles should be reduced and, if necessary, their characteristics should be simplified.

Styles must be applied in a consistent and coherent way throughout the electronic publication and all linguistic versions.

The following elements must be respected, captured as in the input content:

- Bold, italics and underlined;
- Capitalization;
- Superscript and subscript.

## ***Header and footer***

Header and footer must not be captured.

## ***Colours***

Wherever possible, colours (font colours, background colours for highlighted text boxes, table cells colours, etc.) must be respected. However background coloured pages must be captured as normal pages ignoring the background colour.



## ***Hyphenation***

Hyphenation must be disabled to avoid word breaks carried over from the print version.

## ***Images***

Equations, signatures, graphics, illustrations and pictures must be captured as images.

The size of the images must be consistent throughout the electronic publication.

Images must be prepared for optimum display on a variety of screen sizes and resolutions. Images must allow zooming on the devices that allow that feature, with enough resolution to ensure proper visualization.

Images must keep the same position in the flow, in the same order than the order appearing in the input content.

Images shall be anchored within the main body of text, ensuring that when the text reflows, the images travel with the text to which they are attached.

Captions and footnotes for images must always be captured as text, not as part of the image. They must be placed immediately before or after the image as per the input content.

In the case of text over the images, the image and the text must be captured separately, with the exception of the text of the copyright, which is to be captured as part of the image.

Background images under the main content will not be captured.

## ***Tables***

Tables must be captured as tables and properly dimensioned so they are readable when increasing the font size. Cells alignment must be respected.

Captions and footnotes for tables must always be captured as text. They must be placed centered and before or after the image as located in the input content.

In case of very complex tables, they could be captured as images if agreed by the Publications Office. Other solutions may be proposed by the Contractor.

## ***Lists***

The different types of lists (1-2-3, A-B-C, a-b-c, i-ii-iii, etc.) and bullet points (square, triangle, arrows, etc.) must be respected.

Nesting must be respected.

## ***Other graphical elements***

Wherever possible other graphical elements (separators, boxes, etc.) must be reproduced respecting the most closed as possible to the original design (colours, fill, stroke, etc.).

## ***References***

References (cross-references, footnotes, URLs, embedded links within the text, e-mails, telephone numbers, multimedia objects, etc.) must be highlighted using blue colour and being underlined. They must be hyperlinked pointing to the related item.

## ***Footnotes***

The list of footnotes must be placed as footnotes page at the end of the main content of the publication. Return hyperlinks between the note and the text reference must be created.

If the list of footnotes is very long or its numeration is restarting on each chapter/page, etc., appropriate sections or labels, allowing the clear identification of the notes, must be present on the footnote page.

### ***Links***

Internet addresses present in the publication must be activated pointing to the appropriate target URL.

If the activation of additional hyperlinks is requested, embedded links within the text must be implemented pointing to the appropriate target URL.

### ***E-mail addresses and telephone numbers***

E-mail addresses and telephone numbers present in the publication must be activated.

### ***Multimedia objects***

If the integration of multimedia objects inside of the publication is requested, embedded links within the content must be implemented pointing to the appropriate multimedia object.

The multimedia object must be included within the EPUB container. Multimedia objects shall be prepared for optimum display on a variety of screen sizes and resolutions.

The EPUB file with fixed layout must respect the layout and the order of the pages of the printed publication.

### ***Quality Validation***

The minimum quality controls (both manual and automatic validations) to be performed by the Contractor during the production process of electronic publications (e-books).

The Contractor shall perform all quality controls for each linguistic version.

The Contractor shall provide a quality control report together with any EPUB delivery. These reports must document the quality control procedure, tests and validations conducted by the Contractor on the deliverables as well as the list of e-reading applications, e-ink reading devices and other devices on which the e-books have been tested.

### ***Quality Controls***

#### ***Automatic***

The following is the minimal list of automatic validations which must be part of the production process:

- Technical file validation (conformity with prescribed standards);
- Structural validation and conformity with original input files (via tools to be present in the Contractors' production workflow);
- Validation of naming convention;
- Synoptic validation (in case of production of several language versions).  
Minimal list of structural elements to check for several language versions:
  - Number of sections;

- Number of chapters;
- Number of sections at "Level 1";
- Number of section at "Level 2";
- Number of paragraphs;
- Number of lists;
- Number of elements in each list;
- Number of footnotes;
- Number of footnote references;
- Number of tables;
- Number of table captions;
- Number of illustrations;
- Number of illustration captions;
- Number of links to URLs;
- Word breaks;
- Line breaks.

If differences between language versions are discovered, then the operator must verify if and to what extend an error has occurred and if necessary re-check the entire file.

## ***Manual***

The following is the minimal list of manual validations which must be part of the production process:

- Operability of the files on different readers and platforms (see point 3);
- Completeness of content;
- Presence and correctness of bibliographical data/metadata (ISBN, doi, author etc.);
- Quality of images (proper visualization and zooming on the devices that allow that functionality);
- Readability of tables;
- Functioning of resize-function;
- Correct display of special characters;
- Search function;
- Opening speed of pages and footnote references;
- Correct use of soft hyphens;
- Functioning of the table of contents;
- Functioning of references (cross-references, footnotes, URLs, embedded links within the text, e-mails, telephone numbers, multimedia objects, etc.);
- Sequence/order of content elements;
- Presence of typographical signs;

- Correct rendering of "text to speech".

### ***Devices and platforms***

The Contractor shall carry out tests and validations on the following reading platforms: e-reading applications running on Microsoft Windows, Mac OS, Android and iOS, as well as e-ink reading devices. The lists of devices indicated below may be adapted according to the evolution of the market.

The following is the minimal and indicative list of devices and platforms to be checked for EPUB deliverables with reflowable text.

- Windows:
  - ADE;
  - Calibre;
- iOS:
  - iPad;
  - iPhone;
  - iPod touch;
- e-ink devices:
  - Sony PRS 650;
  - Sony PRS 300;
  - Sony PRS 350;
  - Sony touch Edition;
  - Nook 2009;
  - Cybook Orizon;
- Android:
  - Samsung Galaxy;
  - Nook Color;
  - Kobo VOX.

The following is the minimal and indicative list of devices and platforms to be checked for EPUB deliverables with fixed layout.

- iOS:
  - iPad;
  - iPhone;
  - iPod touch;
- Android:
  - Kobo VOX.

## Digital Rights Management (DRM)

Digital Rights Management (DRM) must be implemented in accordance with the NBT policy framework to protect ownership/copyright of electronic content. DRM should provide NBT to specify and control:

The access they want to give consumers and  
The conditions under which it is given.

It includes:

**Persistent Protection:** Technology for protecting files via encryption and allowing access to them only after the entity desiring access has had its identity authenticated and its rights to that specific type of access verified

**Business rights:** Capability of associating business rights with a content by contract, e.g. author's rights to an article or musician's rights to a song

**Access tracking:** Capability of tracking access to and operations on content

**Rights licensing:** Capability of defining specific rights to content and making them available by contract

DRM must ensure NBT that:

Rights are tracked at ingestion  
Access is controlled during production processes  
Protection for the content extends throughout product lifecycles

Additionally, DRM should integrate persistent content protection with content management to ensure:

Proper business practices  
Implementation of new business models  
Compliance with regulatory requirements in industries and Government