

Statistical Commission

Background document

Fifty-second session

Available in English only

1-3 and 5 March 2021

Item 3(i) of the provisional agenda

Items for discussion and decision: Management and modernization of statistical systems

**Background document for Management and modernization of statistical systems
(E/CN.3/2021/13)**

Prepared by United Nations Statistics Division

Summary

The present background paper of the report of the Secretary General on Management and modernization of statistical systems (E/CN.3/2021/13) provides the status of progress of the next edition of the Handbook on Management and Organization of National Statistical Systems (the *Handbook*) since the 51st session of the United Nations Statistical Commission (the UNSC or the Commission), informs on the immediate next steps, and finally recalls the modalities and mechanisms suggested by the UNSC to keep the *Handbook* a living document on the web.

This background document provides the following:

- **Web link** to the Handbook on Management and Organization of National Statistical Systems (*Handbook Beta version 2*)
- **Annex 1:** Evaluation of a number of desk top publishing tools that were considered for hosting the online *Handbook*.

I. Introduction

The Commission at its fifty-first session in March 2020 (decision 51/120) welcomed the progress in drafting the next edition of the *Handbook* and agreed with the proposed updated structure, subject to further adaptations and refinements, to be duly considered during the editorial phase of preparation of the *Handbook* document. It reiterated the importance of the *Handbook* been a “living” document on the web, which will be updated at regular intervals to address common challenges and take advantage of innovative solutions, including those relating to the production and utilization of the indicators for monitoring progress towards the goals and targets of the 2030 Agenda for Sustainable Development. The commission also reiterated the need for the overview chapter (Chapter 2) to reach the widest audience possible and thus to be available in a hard copy version in all United Nations official languages.

Further, at the fifty-first session, the Commission endorsed the coordination and consultation mechanisms in place and expressed its appreciation for the valuable role of the advisory group¹ in supporting the drafting process, providing overall guidance to the drafting team at UNSD and ensuring a link with the High-level Group for Partnership, Coordination and Capacity-Building for Statistics for the 2030 Agenda for Sustainable Development (HLG-PCCB) and other relevant global and regional bodies. The Commission recalled that this approach is to be complemented with a series of thematic conferences at the regional and sub-regional levels, at which senior statisticians could discuss recent institutional, organizational and technical developments addressing prospective challenges and opportunities for the production of official statistics and indicators.

II. Status of the *Handbook* and progress since March 2020

On 10 February 2021, the draft *Handbook* (Beta v2) to be submitted to the fifty-second session of the Commission was made available on the wiki platform of the Statistics Division². Since March 2020, the 8 missing chapters have been drafted, and all chapters merged and streamlined into one single document, supplemented by a glossary and annexes. These steps have all benefitted from the informed guidance and leadership of the Advisory Group.

Prior to this version (Beta v2), a draft *Handbook* Beta v1 has been uploaded on the wiki platform of the Statistics Division. This version, which was missing the introductory chapter (Chapter 1), benefitted directly on the wiki platform from last minute comments and suggestions from the Advisory Group members and also from the wider statistical community. One suggestion that the drafting team at UNSD have tried to implement was to place the chapter on the national statistical office (Chapter 5) before the chapter on the national statistical system (Chapter 4). In the end Despite all attempts, it was decided to keep the order of the chapters as originally endorsed by the Commission but, in counterpart, to move and rearrange sections describing the role and function of the national statistical office within the system in Chapter 4 and keep in Chapter 5 elements related to the statistical office as a statistical organization.

As from **10 February 2021**, the draft *Handbook* (**Beta v2**) will available as a single document by clicking [here](#) or accessible by chapters [here](#). For the sake of transparency and information the version of the draft *Handbook* (Beta v1) from 5 January 2021 is downloadable [here](#).

Table 1 on the next page informs about the status and summary of changes of the *Handbook* chapter by chapter.

¹ The members of the advisory group are Brazil, Ghana, Kenya, Mongolia, the Philippines, Poland, South Africa, Suriname, the United Kingdom of Great Britain and Northern Ireland, the State of Palestine, FAO, ILO, UNCTAD, the Asian Development Bank, Eurostat, Open Data Watch, PARIS21, the Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC) and the five regional commissions of the United Nations.

² Handbook space on the wiki platform of the Statistics Division:
<https://unstats.un.org/wiki/display/HSO/Handbook+on+Management+and+Organization+of+National+Statistical+Systems>

Table 1³::Final draft of chapters and summary of changes made during the editorial phase.

Chapter	Main adaptation and refinements
Ch. 1 – Introduction [link]	New drafted chapter only available in <i>Handbook</i> Beta v2 (not available in Beta v1).
Ch. 2 - Overview [link]	New drafted chapter, already available in Beta v1.
Ch. 3 – Basis of Official Statistics [link]	Chapter available in March 2020; further edited and streamlined for Beta v1.
Ch. 4 – NSS [link]	Chapter on the National Statistical System (NSS) available in March 2020; further edited and streamlined for Beta v1. Adjusted in Beta v2 to strengthen role and function of the NSO within the system.
Ch. 5 – NSO [link]	Chapter on the National Statistical Office (NSO) available in March 2020, further edited and streamlined; already available in Beta v1. Modified in Beta v2 to be consistent with adjusted Chapter 4.
Ch. 6 - Users and their needs [link]	New drafted chapter, already available in Beta v1.
Ch. 7 - Quality management [link]	Chapter available in March 2020 but adjusted to reflect the recently adopted United Nations National Quality Assurance Frameworks Manual for Official Statistics (UN NQAF Manual); already available in Beta v1.
Ch. 8 - Data source, collection and processing [link]	Chapter available in March 2020, further edited and streamlined for Beta v1.
Ch. 9 - Analysis and analytical frameworks [link]	New drafted chapter, already available in Beta v1.
Ch. 10 - Dissemination of official statistics [link]	Chapter available in March 2020, further edited and streamlined for Beta v1.
Ch. 11 - Common statistical infrastructure [link]	New drafted chapter, already available in Beta v1.
Ch. 12 - Human resources management and development [link]	Chapter available in March 2020, further edited and streamlined for Beta v1.
Ch. 13 - Data, information and knowledge management [link]	New drafted chapter, already available in Beta v1.
Ch. 14 - Information technology management [link]	Chapter available in March 2020, further edited and streamlined for Beta v1.
Ch. 15 - Management of buildings, physical space and finance [link]	New drafted chapter, already available in Beta v1.

³ The final draft of all chapters are publicly available on the wiki for further comments and can be accessed by the embedded links in table 1.

Chapter	Main adaptation and refinements
Ch. 16 - International Statistical System [link]	New drafted chapter, already available in Beta v1.
Glossary [link]	New, already available in Beta v1.

III. Immediate next steps and Thematic Conferences⁴

Under the guidance of the Advisory Group, the immediate next steps include the following:

- Incorporate feedback and suggestions received at the fifty-second session of the Statistical Commission;
- Consider relevant comments on *Handbook* Beta v2 received on the wiki platform from the broad statistical community;
- Draft and incorporate a preface and acknowledgments;
- Collect the cards of a few international organisations that have not sent the requested information to inform chapter 16;
- Finalise list of training institutions to supplement chapter 12;
- Supplement and illustrate the text with graphs, pictures, and other graphic elements; in particular for Chapter 2 which is targeting a wider audience and will be distributed in hard copies.

Following these steps, the *Handbook* will be migrated from its present wiki platform to a user-friendly web solution. It became increasingly evident that the wiki solution currently being used to host the *Handbook* is lacking some core functionalities. An evaluation of a number of desk top publishing tools that could host the *Handbook* was conducted and the results presented in Annex 1.

A series of eight Thematic Conferences on *Managing a statistical organization in times of change*, targeting national chief statisticians and senior managers of international statistical agencies, has been planned to address emerging user needs for high-quality and internationally comparable statistics and indicators in a fast-changing data eco-system. These conferences aim to stimulate exchanges of information on national best practices and eventually to collect initiatives, challenges and success stories at global (sub-)regional, and national levels to inform and illustrate the next edition of *the Handbook*.

However, due to sanitary measures and travel restrictions related to the outbreak of the COVID-19 pandemic, the conclusion of the first round of Thematic Conferences had to be postponed. So far only the [African Thematic Conference](#), the [Caribbean Thematic Conference](#) and the [Asian Thematic Conference](#) have been held. Since the format of these events does not allow for them to be organized virtually, the remaining Thematic Conferences for the Pacific; for countries of South-East and Eastern Europe, Caucasus and Central Asia; for the Arab region; for Francophone Africa; and, for Latin America will be held as soon as circumstances permit again, and the identified good practices, success stories, challenges and initiatives integrated without delay into the *Handbook*.

IV. Keeping the *Handbook* as a living document

At its fifty-first session, the Statistical Commission emphasized the need to establish a sustainable mechanism for the regular update of the *Handbook*. Feedback received by some members of the Advisory Group as well as the outcome of discussions conducted in the framework of the thematic

⁴ <https://unstats.un.org/capacity-development/thematic-conferences/>

conferences on how to keep these important guidelines relevant and up-to-date in a fast changing data landscape suggested to make a distinction between updates and revisions:

The discussion focused as follows: it was explained that a fundamental distinction will be made between updates and revisions.

- Updates would include adding new success stories or regional initiatives, updating internet links and adjusting some factual and non-controversial information. These updates would be conducted and documented at regular intervals by the drafting team at the Statistics Division.
- Revisions on the other hand would cover in-depth modifications of the coverage, substance or structure of chapters and should be carried out at longer intervals, such as every second year, under the guidance of the Advisory Group and eventually submitted to the Commission. Some chapters such as those dealing with new data sources and innovative technologies would be expected to be more often subject to revisions than others. To inform the revision of specific chapters of the *Handbook*, it was proposed to organize additional series of regional thematic conferences or, when appropriate, to extend/complement existing regional events with sessions on topics and issues pertaining to chapters under revision. Revised chapters and sections of the *Handbook* would be labelled as provisional until submitted to the Commission.

These distinct procedures for updates and revisions would allow the *Handbook* to remain an agile living document, reflecting the rapid mutation of the data ecosystem and emerging technologies while ensuring general oversight from Members States.

Annex 2

Evaluation of Desk Top Publishing software to support the online version of the Handbook on Management and Organization of National Statistical Systems

1. Introduction

This document presents an evaluation of the potential of 3 Desk Top Publishing (DTP) software packages for meeting the functional requirements to support the online version of the [Handbook on Management and Organization of National Statistical Systems](#). DTP software allows the creation of documents and management of the layout and design. The software packages evaluated are the commercial tools [Adobe FrameMaker](#) and [Microsoft Publisher](#) and the open-source [Scribus](#) application and the evaluation is based on the ability of each application to respond to the functional requirements for managing the Handbook document, integration with existing UNSD software and license costs.

The assessment was done using evaluation copies of each software package against the required functionalities listed in section 2 as well as the ability to access and edit the Handbook document. Recommendations are made for selecting a DTP tool to manage the online version of *the Handbook* based on the findings of this evaluation.

2. Requirements of online version of the *Handbook*

2.1 General features

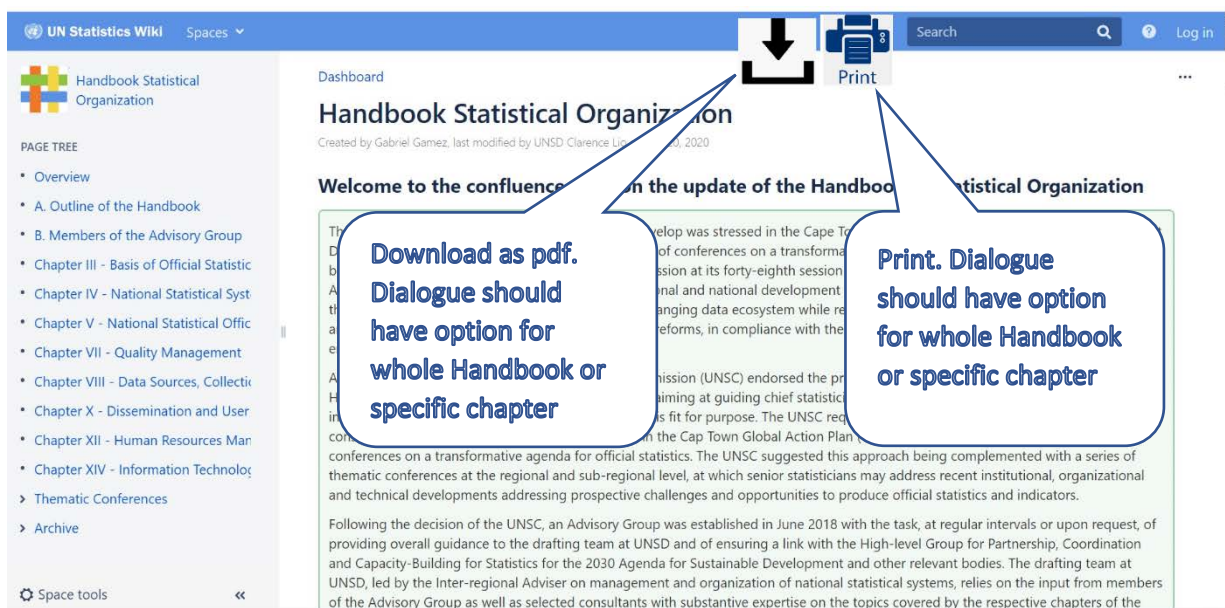
- a) The *Handbook* will cater to the following different user profiles:
 - *Contributors* can propose changes to a particular chapter and submit them to the editors.
 - *Editors* have rights to change any text and to approve changes of contributors to update the master version of the *Handbook*.
 - *General users* can create a login and send comments on the content. These comments will be visible only to the editors and not to other users.
- b) Linked open data – the *Handbook* text should (progressively) be converted to a machine-readable format which is interlinked with other data that can be connected together and interpreted by software applications. This will make the information more easily searchable and provide links to related information.
- c) All links should open in a new tab.
- d) Automatic translation - The *Handbook* text should be in (or able to easily convert to) the correct machine-readable format to support connect to automatic translation software.
- e) Mobile-compatible- The *Handbook* content should be in a format that will allow it to be accessed via tablet and mobile phone browsers in the future.
- f) *Handbook* versions - The *Handbook* platform should support two versions of the content. One will be a working version where contributors and editors apply changes - this version will not be accessible to other users. Once changes are applied the content will be copied to the master version.

2.2 Online Handbook homepage

The *Handbook* home page should include the following functionalities (features):

- Search will retrieve any term in the *Handbook* and provide a list of ranked results.
- Navigation tree for chapters will show a list of chapters. Users can drill down to a specific chapter, section or sub-section and in order to have direct access.
- A print feature will open a dialogue box to generate a printer-friendly version of the whole handbook, specific chapter or section.
- A download option will open a dialogue box to download the whole *handbook* in pdf format.

Figure 1 – Mock-up of Handbook homepage main features.

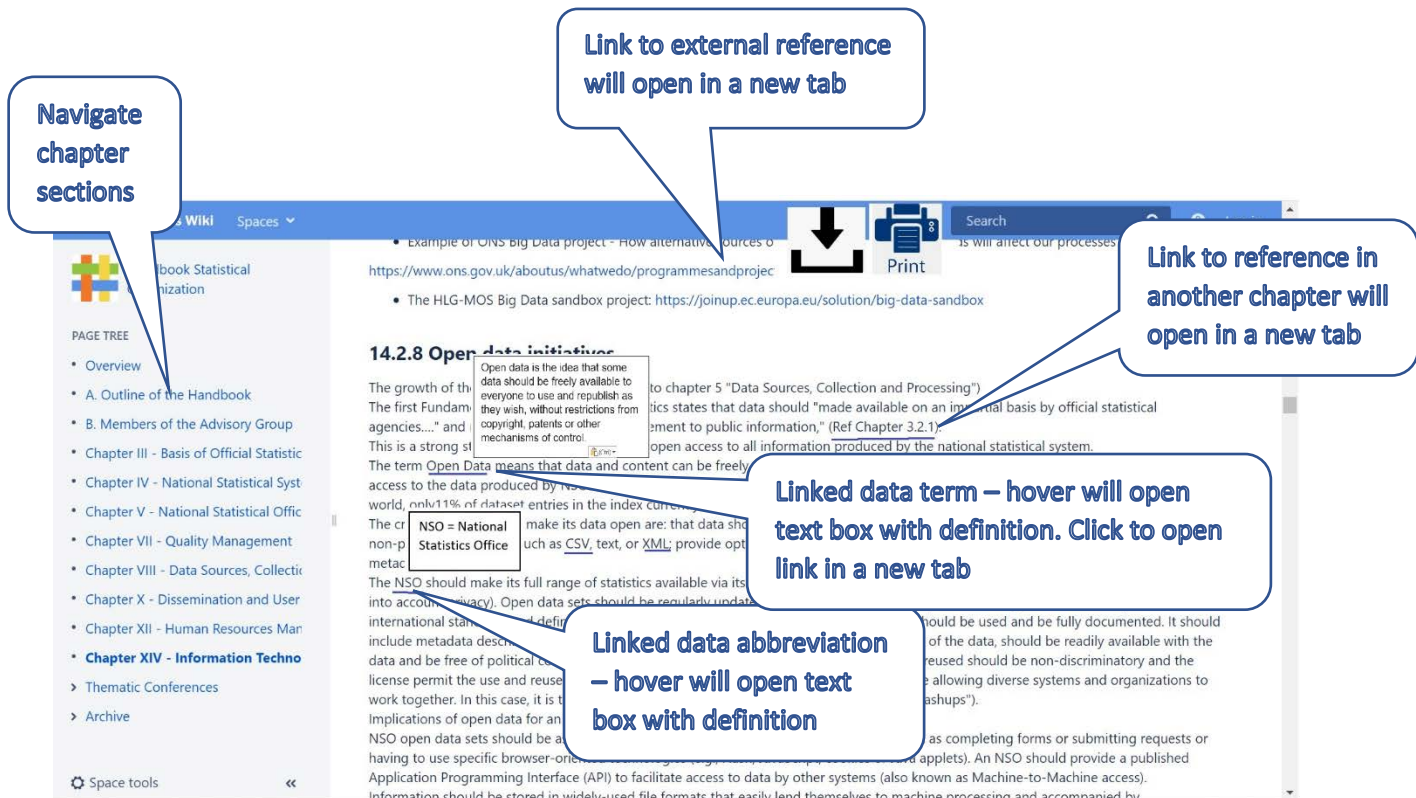


2.3 Handbook chapter pages.

The *Handbook* chapter pages should include the following functionalities (features):

- Link back to the *Handbook* home page.
- Search will retrieve any term in the *Handbook* and provide a list of ranked results.
- Navigation tree for chapters will show a list of chapters. Users can drill down to a specific chapter, section or sub-section and in order to have direct access.
- A print feature will open a dialogue box to generate a printer-friendly version of the whole *Handbook*, specific chapter or section.
- A download option will open a dialogue box to download the whole handbook in pdf format.
- Each section and sub section to be opened/closed to reveal or hide text. Introduction text open by default.
- Each chapter/section to show information on last update etc.

Fig. 2 –Handbook chapter page main features.



2.4 Maintenance page.

The *Handbook* maintenance page will be available only to contributors and editors allowing them to edit content. It should include the following functionalities (features):

- i. Contributors will have permissions to propose changes to specific chapters via a maintenance screen. This will generate a tracked version sent to the editor via email.
- ii. Editors will be able to accept or reject changes and send messages to contributors.

3. Evaluation of DTP software packages

3.1 Adobe FrameMaker (v 2020)

Adobe FrameMaker is a document processor designed for writing and editing large or complex documents, including structured documents. It was originally developed by Frame Technology Corporation, which was bought by Adobe. FrameMaker supports XML so is an ideal tool for creating documents which have changeable data content.

FrameMaker can be used as a word processor. It includes additional DTP facilities, such as the ability to anchor frames and pull-outs to words or phrases within text as well as to specific places on the page. It can manage paragraph and character styles allowing establish complete, structured styles sheets. It can manage large documents and features include automatic headers and footers, with content taken from chapter and paragraph numbers and titles, generating tables of contents and indexing.

FrameMaker can import Word documents. It was able to import the entire *Handbook* to make edits and can publish as PDF, HTML and other output formats. The majority of styles and formatting were

correctly copied where they had been uniformly applied throughout the document. Editing was required where styles had not been applied in a standard way. Links to external sites worked correctly. Test links to sections of the table of contents and to glossary items work but are suffixed by the term 'XREF'. Links from the table of content to each chapter and sections are not enabled but can be accessed via the PDF navigation panel. All issues encountered can be managed using the FrameMaker word processing editor.

Comprehensive help features and training videos are provided with the application.

Integration

As FrameMaker is an Adobe product it can easily integrate with the existing Adobe products used by UNSD staff.

Cost: \$399 per license

3.2 MS Publisher (v 2019)

MS Publisher is part of the Microsoft Office Suite and allows creation, personalisation, and sharing of a wide range of publications and marketing materials. Microsoft Publisher is a basic desktop publishing application. It has an extensive range of tools for producing layouts and creating typographic quality text and images. Microsoft Publisher is Microsoft's entrant in the desktop publisher (DTP) market. It is a feature-rich platform with an intuitive yet easy-to-use interface that is characteristic of the Microsoft 365 office suite.

MS Publisher has a simple interface with a word processor that includes a number of features of MS Word. MS Publisher is able to open and retain format and styles of individual chapters (max 50 pages) but did not succeed in opening the full *Handbook* of 600 pages due to lack of sufficient memory to convert text formatting (maximum file size opened successfully was 120 pages).

Comprehensive online help features are provided with the application.

Integration

MS Publisher only runs on Windows 10, with no support for macOS, Linux, or any mobile operating systems. There is also no web app which is a significant limitation. MS Publisher can easily integrate with other Microsoft products used by UNSD staff.

Cost: \$139 per license

3.3 Scribus (v 1.4.8)

Scribus is an open-source DTP application. Features include an improved preview mode and style management from a fixed style palette. Fonts need to be installed as they do not come with the software. It is a simple page layout tool built for all common operating systems and totally open source. It can be used to design books or flyers or promotions.

Scribus has a basic, no-frills interface basic very much in the style of an open-source product. Scribus can import text from .doc files into text frames, but results in a loss of all formatting and style sheets. To retain this information doc files need first be converted to the OpenDocument file format. Scribus cannot open pdf files but can load pdf file in image frames. For this feature to work, an additional open-source software (Ghostscript) needs to be installed and configured so Scribus can find it. Even when

this was done, Scribus was unable to load the full *Handbook* document which may have been too large at 600 pages.

Comprehensive help features are provided with the application.

Integration

As Scribus is a free open-source product, new updates and features can be a long time in coming.

Cost: Free (open-source)

3.4 Ability of each software to meet requirements

The following matrix maps the functional requirements listed at section 2 to the ability of each software package to meet respectively each requirement. It should be noted that MS Publisher and Scribus were unable to load the full *Handbook* document. The evaluation, therefore, for these two software packages is based on the use of smaller test documents and referring to related technical documentation.

Software by functional requirements

Functional requirement	Software		
	Adobe FrameMaker	MS Publisher	Scribus
1. Management of Handbook profiles	<i>To be managed by wiki software</i>	<i>To be managed by wiki software</i>	<i>To be managed by wiki software</i>
2. Support for Linked open data.	Supports hypertext links	Supports hypertext links	Supports hypertext links
3. All links should open in a new tab.	Hypertext commands available	Hypertext commands available	Functionality not found in technical documentation
4. Text should be in (or able to easily convert to) the correct machine-readable format to support connect to automatic translation software.	Adobe Flex properties files - UTF-8 encoding	Supports UTF encoding	Functionality not found in technical documentation
5. Mobile-compatible content.	Can be published to print, web, or mobile devices	Can be published to print, web, or mobile devices	Functionality not found in technical documentation
6. Handbook versions - The Handbook platform should support two versions of the content.	Can support work and published versions	Can support work and published versions	Can support work and published versions
7. Search will retrieve any term in the Handbook and provide a list of ranked results.	Display results with all search words on published output	Display results with all search words on published output	Functionality not found in technical documentation
8. Navigation tree for chapters will show a list of chapters.	Includes mark-up that processors can use to generate reader navigation	Can generate navigation tree	Can generate table of contents (ToC)
9. A print feature will open a dialogue box to generate a printer-	Can be done using print dialogue from published output	Can be done using print dialogue from published output	Can be done via PDF output

Functional requirement	Software		
	Adobe FrameMaker	MS Publisher	Scribus
friendly version of the whole handbook, specific chapter or section.			
10. A download option will open a dialogue box to download the whole handbook in pdf format.	Download as PDF available	Download as PDF available	Save as PDF available
11. Link back to the Handbook home page.	Hotlink feature available	Functionality not found in technical documentation	Functionality not found in technical documentation
12. Each section and sub section to be opened/closed to reveal or hide text. Introduction text open by default.	To be confirmed	Functionality not found in technical documentation	Functionality not found in technical documentation
13. Each chapter/section to show information on last update etc.	Can be set up in master page	Needs to be set up in Word file (input)	Functionality not found in technical documentation
14. Manage permissions to propose changes to specific chapters via a maintenance screen. This will generate a tracked version sent to the editor via email.	<i>To be managed by wiki software</i>	<i>To be managed by wiki software</i>	<i>To be managed by wiki software</i>
15. Editors will be able to accept or reject changes and send messages to contributors.	<i>To be managed by wiki software</i>	<i>To be managed by wiki software</i>	<i>To be managed by wiki software</i>
Total (not including wiki software functions)	11/12	9/12	5/12

4. Conclusions and recommendations

From the results of the evaluation presented in the matrix above Adobe FrameMaker is a mature and robust DTP tool with rich functionality, documentation and support. It can handle most of the required functions needed to manage the online version of the *Handbook*. It is able to manage large documents with content that needs to be frequently updated. It can import files in Word format (although some manual editing is needed) and can publish in PDF and HTML format. FrameMaker can integrate easily with other Adobe software tools.

MS Publisher is a DTP tool designed for smaller publications and documents. While it has an intuitive interface and integrates well with other Microsoft software it is unable to manage huge documents. Given the size of the *Handbook* (approximately 600 pages) this is a major issue.

Scribus is an open-source DTP tool. The software being free is offset by limited support and infrequency of updates. It cannot access Word documents and there is a question mark on its ability to work with large PDF files. As mentioned before the size of the *Handbook* is approximately 600 pages therefore

this is major issue for this software. Also indicated from the results of the evaluation many of the requirements were not found and therefore this software may have limited functionalities.

Of the 3 DTP tools evaluated, Adobe FrameMaker is the only software able to open and edit the full *Handbook* document and it meets most of the functional requirements. It is an ideal tool for creating documents which have changeable data content while the other two software packages have significant limitations. Adobe FrameMaker is therefore recommended as the software most suited for managing the online version of the *Handbook*.