



**MINISTÈRE
DE LA CULTURE**

*Liberté
Égalité
Fraternité*

Study on accessible digital books

Executive Summary

March 2022

BACKGROUND

Directive (EU) 2019/882 of the European Parliament and of the Council of 17 April 2019 on accessibility requirements for products and services will come into effect on 28 June 2025. It will especially imply the generalization of the **production of natively accessible digital books** and the **conversion of digital books already on the market**. The transposition of this directive into French law will have an **impact on the entire value chain**: writing of the book by the author, production by publishers and their subcontractors, marketing by broadcasters and distributors, and finally use by the final reader. **The French Ministry of Culture has commissioned a study to evaluate the specific impacts of the European directive on the actors of digital book production, publishers, and their subcontractors.** The objectives of this study are to propose a vision of the perimeter of books and actors concerned, to assess the level of preparation of the latter and to make an initial estimate of the economic impacts of the directive on the digital book production sector.

METHODOLOGICAL APPROACH

To achieve these objectives, a double approach has been implemented:

1. **Qualitative approach**: 35 interviews with various actors (transversal actors, publishers, and subcontractors), to assess the level of preparation of the production actors and to propose a first assessment of the economic impact of the directive, for these various types of actors.
2. **Quantitative approach**: modelling of the economic impacts for the sector, based on available market data and data collected from the players via an online survey addressed to all the publishing houses or brands with a digital catalog and involving 95 respondents.

REQUIREMENTS OF THE DIRECTIVE

The European directive mentions general principles of accessibility to be respected to ensure the accessibility of digital books, without mention of a specific format that would become the standard. However, **a consensus is emerging around the EPUB3 format with a reflowable layout and accessibility features.** This format is widely supported by international players¹, who see the opportunity to create a single digital format standard. Indeed, this format is open and interoperable, which makes it possible to integrate the expression capabilities of all other formats. In addition, the reflowable layout ensures a smooth user experience and allows for the addition of accessibility features (e.g., alternative texts to visual objects, descriptions of complex characters such as mathematical formulas or foreign languages).

- **Consequently, this study is based on the "maximalist" assumption that all new annual e-books, as well as all e-books in the collection, will be available in a reflowable EPUB3 format with accessibility features by 2025.**
- **The scope of digital books concerned by the directive has been estimated at about 32,000² new digital books published per year and a collection of 534,000² existing digital books in 2025.**

¹ FEE has produced a document for the European Commission encouraging the identification of EPUB3 as the target format for the directive: FEP open position paper on technical specifications for ebooks for the European Accessibility Act

² Assumptions based on Dilicom 2021 data shared as part of the study - excluding free books and/or books marketed by foreign publishers

LEVEL OF PREPARATION OF FRENCH PLAYERS

The French publishing landscape is distinguished by a **large fragmentation**, but also by a **strong concentration of revenues** by a few large groups. Today, digital publishing represents a minority position in the revenues of publishers, around 10% on the scale of the sector³, with a **strong heterogeneity** according to the considered segments (with 3 segments distinguished by a strong weight of digital publishing, such as scientific publishing, genre books and educational publishing). Nevertheless, **the potential of digital publishing is developing**, and the players seem to be giving increasing importance to accessibility stakes. **Some large groups are pioneers** and play a driving role in the progressive transformation of all the players in the value chain.

On the other hand, **the players interviewed agree that the implementation of the directive's requirements will represent a significant challenge**. This general concern of publishers crystallizes around various points:

- **A lack of precision in the directive** and a difficulty expressed by some players in understanding the part of their activity that will be affected
- **The perception of an economic equation that could be unfavorable to publishers**, particularly concerning the conversion of the collection
- **A lack of skills to meet the requirements of the directive** (for structuring according to the directive's requirements, drafting alternative texts, etc.)
- As a result, **many of the actors interviewed emphasize the need for assistance from public authorities**.

ECONOMIC IMPACTS OF THE IMPLEMENTATION OF THE DIRECTIVE ON PUBLISHERS AND THEIR SUBCONTRACTORS - MAIN RESULTS

Methodological choices made in the framework of the study:

- The meeting of the technical requirements of the directive has been translated as the availability of the file in a **reflowable EPUB3 format with accessibility features**
- The volume of digital books in the 2025 collection has been assessed by considering that the **formats that will be produced between 2022 and 2024 included will remain stable** (e.g., no increase in the share of accessible reflowable EPUB3 formats).
- Many assumptions were made to compensate for the lack of available data. For example:
 - Assumptions regarding **existing production costs** (based on production models and books produced) and their evolution to meet accessibility level were formulated based on interviews conducted with industry players
 - The hypotheses concerning the volume of digital books in the flow and the collection, as well as their distribution by publishing category, were formulated based on **Dilicom data and exchanges with the SNE**
 - In addition, the online survey has made it possible to construct numerous hypotheses concerning **production models and the level of preparation of the players**

These hypotheses have involved reasoning macroscopically, at the level of the sector, by grouping digital books depending on their characteristics. Thus, the work was largely based on distribution by publishing category. The typology used was defined with the SNE, based on available Dilicom data.

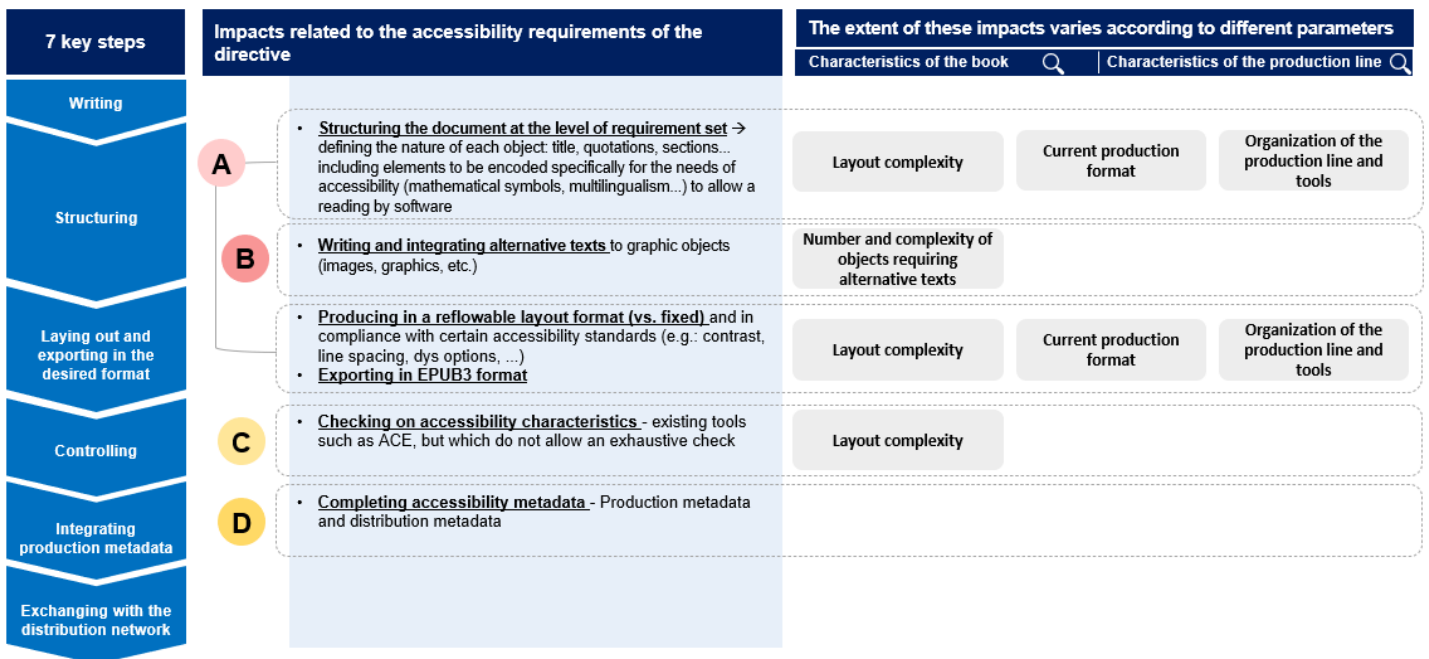
³ According to SNE report « Les chiffres de l'édition » published in 2021

- More specifically, the target production costs of new annual digital books and the costs of converting the collection were modeled:
 - **Without accounting for the investments** that will be necessary (e.g., costs of training, adaptation of certain tools, etc.)
 - Based on an assumption of stability:
 - **Of production models** of the sector's players (some of these models may have to evolve, for example with recourse to subcontracting)
 - **Of available tools and technologies** (e.g., limited development of artificial intelligence solutions to automate the drafting of alternative texts, which is largely manual today)
- **The exemptions provided for in the general framework of the European directive have been the subject of working hypotheses**, to adapt them to the specific context of digital books in France and to consider the available data (see detailed hypotheses in the rest of this document)

In summary, **the results of the study are based on numerous working hypotheses that will need to be refined.**

Nature of the impacts on the players in the production of digital books

The application of the directive will have an impact on all stages of the digital book production chain in France. **The extent of these impacts will depend on different parameters, specific to the book considered or to the production methods of the actor concerned**, as shown in the diagram below.



Excluding transverse investment costs: awareness & training, development and deployment of tools, ...

Consequently, the costs associated with the different types of impacts were modeled considering the following parameters:

- **The characteristics of the digital book considered:**

- **The nature of the models of the digital books considered:** linear or non-linear, simple or complex
- **The number and nature of visual objects requiring alternative texts** (images, graphics, diagrams, maps, etc.)
- **The characteristics of the production model of the considered actor:** internal or external management, use of automated tools or not

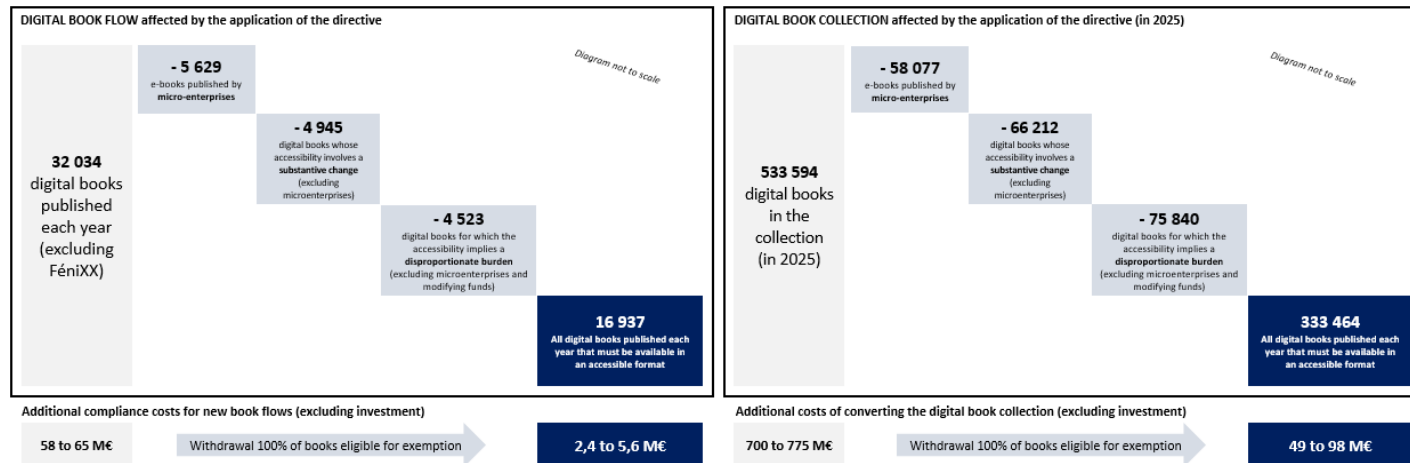
Before taking exemptions into consideration, the models have made it possible to estimate the additional **cost of producing all digital books in reflowable EPUB3 format with accessibility functions at between €58 and 65 million** (i.e. between 1 and 2% of the total annual digital publishing turnover and between 0.09% and 0.2% of the total annual publishing turnover), **and the total conversion of the collection at between €700 and 775 million** (i.e. between 19 and 37% of total digital publishing revenue and 1.8 to 3.6% of total annual publishing revenue).

Consideration of exemptions

- **Exemption for micro-companies:** this criterion involved identifying the scope of digital books in the flow and the collection linked to companies **employing less than 10 people and whose annual turnover does not exceed €2 million or whose annual balance sheet total does not exceed €2 million**. This led us to estimate that **1,421 companies** were concerned out of a total of 2,700 players (including 1,000 self-distributed publishers). These 1,421 actors are responsible for **a flow of 5,629 digital books and for a total collection of 58,100 digital books in 2025**.
- **Fundamental alteration exemption:** this criterion has been interpreted as concerning **digital books for which content and form are closely linked**. It was considered that books belonging to 3 specific editorial categories could meet this criterion (**Youth - Albums & Documentaries, Comics, Arts categories**). This represents **4,945 new titles each year, and a 2025 collection estimated at 66,212 digital books** (after removing books already exempted for microenterprise).
- **Exemption for disproportionate burden:** among the different ratios that the directive invites to consider, only one can be modeled based on the data available in the framework of the study. The latter consists of **relating the additional costs associated with accessibility to the total target cost**. By hypothesis, books for which this ratio is higher than **80%** were considered eligible for this exemption. This led to the removal of **4,523 books from the flow and 75,840 books from the collection from the scope of books affected by the directive** (after removal of books already exempted for microenterprise or fundamental change). **These books belong mainly to categories with non-linear and/or richly illustrated layouts**.

Thus, if we remove all the books concerned by at least one of the 3 exemptions detailed above, **the minimum perimeter of digital books to be considered within the framework of the transposition of the directive in France is the following:**

- **Flow:** approximately **17,000 digital books per year**, accounting for **53%** of the books published each year on the scale of the sector. **The additional cost associated with their production in reflowable EPUB3 format with accessibility functions would represent between €2.4 and €5.6 million**.
- **Collection (2025 projection):** approximately **333,000 digital books**, representing **62%** of the total collection for the industry. **The additional cost associated with converting them into reflowable EPUB3 format with accessibility functions would represent between 49 and 98 M€**.



The application of the directive will have an **impact on all the players in the ecosystem**. **New tasks will have to be integrated into the production chains**, including the drafting and integration of alternative texts, the control of file accessibility and the integration of accessibility metadata. Conversion will be a one-time cost and will involve the same activities, with prior analysis and restructuring of the files. To take on these new activities, **actors will have to plan investments in terms of tools and skills**.

However, **some players will be more affected than others**. This will be the case for **those whose production is based on tools and processes designed for paper**. The application of the directive could imply a **profound transformation of their production chain**, with a challenge to improve the tools used (if in-house production) or to change subcontractors in favor of players with automation capabilities (if outsourced production).

CONCLUSION

The present study has therefore allowed us to propose an **initial assessment of the economic impacts of the implementation of the directive on the digital book industry**. **This first step will have to be followed by a more detailed work**, allowing to:

- **Establish shared and operational rules for the application of the directive**, particularly concerning its scope and implementation methods, especially on the question of **exemptions**. The response to this challenge could involve consultation with the players in the sector in France and exchanges with those in charge of applying the directive in other European countries.
- **Encourage all players in the publishing industry to meet accessibility challenges, including those eligible for exemptions**. In addition to awareness-raising actions on accessibility issues, a reflection could be conducted on the "**accessibility levels**" of a digital book. Even if a book benefits from an exemption, its publication in a format that is "as close as possible" to the natively accessible format would already represent a step in the spirit of the directive. Furthermore, **incentives for the implementation of more modern production models** could facilitate and reduce the cost of production in a natively accessible format, while committing the sector to a digital shift. Finally, the **definition of the modalities of articulation with the adapted publishing sector** would make it possible to ensure that the books that are the most difficult to produce in a natively accessible format can still be made accessible to people with reading disabilities.

Finally, the actors interviewed emphasize the **importance of engaging in joint discussions with all the actors in the digital book production chain**, around four pillars:

- The **construction of common approaches and standards** on certain concrete aspects of the implementation of the directive (drafting of alternative texts, conversion of the collection...)
- Work on the **professions and skills of the sector** (particularly in relation to new activities such as the drafting of alternative texts, which is currently the subject of a working group led by the SNE in France)
- The **digital shift** of the sector
- The **definition of common approaches for the implementation of the directive**, with a challenge of coordination and organization of the conversion of the collection.

Conducting these joint discussions is a key condition for the appropriation of the directive by the players in the chain, enabling each of them to feel "on board" and to identify the scope of their activity that will be impacted, to concretely prepare for the implementation of the directive, by undertaking preparatory work.

The entire ecosystem would benefit from rapidly initiating this process to achieve a shared target vision and then an effective transformation of production processes. Indeed, the later the adaptation of production chains, the larger the collection of books that will have to be converted by 2025. **The public authorities could continue to support the structuring, launch and maintenance of this collective dynamic, which has already begun with the strategic plan adopted in 2018 by the member organizations of the interministerial steering committee for an accessible digital book offer.**