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Deliverable 3.1 – Report on Analysis Findings

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Executive Summary

This report describes the work of WP3 (Analysing the Knowledge Base), which builds upon and extends the work of WP2 (Building the Knowledge Base). The primary objective of WP3 was to analyse the various data collected earlier in the project in order to gain insights into the current status of open access book policies in the European Research Area. The analysis findings documented in this deliverable serve as the foundation for WP4 (Recommendations and Resources), where actionable recommendations are provided for different stakeholder groups.

In this report as well as throughout the project, academic books are defined as scholarly, peer-reviewed, books including monographs, book chapters, edited collections, critical editions, and other long-form scholarly works unless otherwise noted.

Running from month 6 to month 21 of the project, WP3 conducted various analyses of the diverse datasets collected in the project: interviews, open access policies, surveys, and bibliometrics. Each dataset required a tailored analytical approach to leverage its unique contributions and derive meaningful insights, ensuring that the project's objectives were met through a thorough and nuanced examination of the available information. For this purpose, the project has been oriented around conducting a holistic PESTLE-analysis since the initial design of the data collection, where the Political, Economic, Social, Technological, Legal, and Environmental factors of OA policies and current challenges around OA book publishing are approached and interpreted from multiple perspectives in order to build a comprehensive understanding of the complex landscape. The analysis methodology underwent an external validation process during which three external experts (Janneke Adema, Chérifa Boukacem-Zeghmouri, Charles Watkinson) provided valuable feedback for shaping the methodological approaches and presentation of results.

The project analysed 246 OA policy documents from the ERA. For this research, we defined an OA policy as a document that:

- Is issued by a policymaker or an organisation that is either an RFO, RPO, library or infrastructure provider, or organisation with regional or national policy impact.
- Requires or encourages OA scholarly publications that are associated with or supported by the issuing organisation through funding, affiliation, or other forms of upstream involvement.

This analysis revealed diverse practices when it comes to if and how OA books are present in current OA policies for all types of stakeholders. Our results indicate that OA book policies are still an emerging practice compared to the mature landscape there is for OA journal article policies. RFOs (Research Funding Organisations) were in general more strict in their requirements for OA to books when a policy was present, but also providing associated funding for making it OA directly through the publisher when a requirement was present, while RPOs more commonly had OA to books as a recommendation with self-archiving as a commonly mentioned pathway to achieve that. A quality we found many policies lacking was specificity with everything from definitions, responsibilities, and timeframes being so vague so as to make the policy ambiguous.

The 42 interviews across different stakeholder groups and countries provided an important mechanism for elaborating on past, present, and future circumstances of OA books in the ERA countries beyond what formal policy documents can provide. The most frequently mentioned



barriers that emerged during our interviews were a lack of available funding resources and OA book policies, as well as challenges for coordination on a national scale. The list of additional challenges is long, spanning all the PESTLE factors, which offer helpful guidance for anchoring strong OA book policies in different types of environments.

We conducted an ERA-wide web survey that generated 420 complete responses from different stakeholder groups (national policymakers, RFOs, RPOs, publishers, libraries, infrastructure providers).

Learned societies. In addition to mapping out awareness of current OA policies in different countries and types of organisations, a key thread of inquiry was related to the respondents attitudes towards the design of policies and policy measures for OA books. Declarations and policies were well known among respondents where such existed, particularly in centrally organised countries compared to countries with federal systems. A general tendency among respondents overall was calling out for more intensive stakeholder involvement across the board in the implementation of OA policies. Among the more detailed questions, transparent calculation of book processing charges was regarded as the most important statement concerning economic measures, and concerning technical infrastructures respondents were overwhelmingly in favour of publicly funded technical infrastructures rather than commercial solutions.

The analysis in this deliverable includes a bibliometric investigation that provides an overview of what OpenAlex, the broadest bibliometric database based on open data, can tell us about the current information quality and prevalence of OA books during the last few years. Due to the many limitations of current bibliometrics databases comprehensively indexing in particular titles by national publishers we conducted a survey of national libraries in the ERA to establish to what degree they are able to track OA books, and to what degree such data can be shared by them.

As a final step, we draw together the different strands of collected data and findings to the individual country-levels of the ERA in order to map commonalities and divergences in their current policy circumstances as well as other supporting aspects of OA book publishing. The OA policy frameworks in different countries show very different levels of presence and strictness, and also OA book funding and support mechanisms. While we could see that most countries had a moderate or strong technical infrastructure in the country, the opportunities for OA book publishing were quite often low or moderate with publishers in the country.

As far as we are aware, this is the most comprehensive study on OA book policies yet, including not only a large and internationally diverse set of policies analysed in a structured and detailed way, but also through all the other supporting datasets that were collected in parallel in order to understand the circumstances of individual countries and stakeholder groups in an unprecedented and more detailed way. The Knowledge Base that has been the foundation of the project will persist as an open data resource to serve continued inquiries into this space, hopefully updating and extending the research which has been conducted within this project and this WP. The Open Access Book Toolkit managed by OAPEN has been extended with articles stemming from the analysis work in the project, creating an accessible pathway for dissemination of central findings from the project.

Keywords: open access, books, monographs, policies, scholarly communication



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Table of Acronyms

Acronyms	
AAM	Author Accepted Manuscript
APC	Article Processing Charge
ARIS	Slovenian Research and Innovation Agency
BELSPO	Belgian Science Policy Office
BPC	Book Processing Charge
CC BY/NC/ND/SA	Creative Commons Attribution/Non-commercial/No derivative works/Share alike
CoNOSC	Council for National Open Science Coordination
DARIAH	Digital Research Infrastructure for the Arts and Humanities
DIAMAS	Developing Institutional Open Access Publishing Models to Advance Scholarly Communication
DOAB	Directory of Open Access Books
DOAJ	Directory of Open Access Journals
DOI	Digital Object Identifier
EC	European Commission
ERA	European Research Area
EU	European Union
Europe PMC	Europe PubMed Central
FAQ	Frequently Asked Questions
FCT	Foundation for Science and Technology (Portuguese)
FNR	Luxembourg National Research Fund
FWF	Austrian Science Fund
GDP	Gross Domestic Product
HU Berlin	Humboldt University of Berlin
IT	Information Technology
KB	National Library of Sweden
NIH	National Institutes of Health
NWO	Dutch Research Council
OA	Open Access
OABT	Open Access Books Toolkit
OAPEN	Open Access Publishing in European Networks
OASPA	Open Access Scholarly Publishing Association
OMP	Open Monograph Press
OpenAIRE	Open Access Infrastructure for Research in Europe
OpenDOAR	Directory of Open Access Repositories
OS	Open Science
PALOMERA	Policy Alignment of Open Access Monographs in the European Research Area
PASTEUR4OA	Open Access Policy Alignment Strategies for European Union Research
PDF	Portable Document Format
PID	Persistent Identifier
PKP	Public Knowledge Project
R&D	Research and Development
RFO	Research Funding Organisation
RPO	Research Performing Organisation
SANU	Serbian Academy of Sciences and Arts
SNSF	Swiss National Science Foundation
SSH	Social Sciences and Humanities



Acronyms	
STEM	Science, Technology, Engineering and Mathematics
STM	Scientific, Technical and Medical disciplines
SUHF	Association of Swedish Higher Education
UK	United Kingdom
UKRI	UK Research and Innovation
UNESCO	United Nations Educational, Scientific and Cultural Organization
VoR	Version of Record
WCAG	Web Content Accessibility Guidelines
WP	Work Package



I. Introduction

The PALOMERA project investigates policies related to open access (OA) for academic books by gathering relevant documentation (including policies and contextual materials), conducting surveys with key stakeholders and gaining in-depth contextual insights through interviews. In this project, academic books are defined as scholarly, peer-reviewed works such as monographs, book chapters, edited collections, critical editions, and other long-form academic publications.

The aim of this report has been to document and describe the findings that have resulted from the work done within Work Package 3 (Analysing the Knowledge Base) of the PALOMERA project, which was tasked with analysing the data collected in Work Package 2 (Building the Knowledge Base). WP3 analysed the landscape of OA book policymaking and its character for the first time in a comprehensive way, tapping into the challenges preventing Research Funding Organizations (RFOs) and Research Performing Organizations (RPOs) from developing and aligning their policies for OA books. The findings of WP3 will help inform evidence-based recommendations within the PALOMERA project as part of WP4. The analysis relates to three specific tasks:

- **T3.1 Data coding, enrichment, and preparations for analysis (Lead: HANKEN Partners: IBL PAN, UNIBI, Coimbra, DARIAH)**

Taking the data collected and preliminarily tagged by WP2, this task focuses on preparing the vast and heterogeneous materials for structured analysis. This includes reviewing each piece of collected data and annotating them with metadata based on their related stakeholder groups, PESTLE-dimensions, and countries. This additional information enables us to perform further analytical tasks.

- **T3.2 Conduct analysis (Lead: HANKEN Partners: OAPEN, SPARC Europe, DARIAH, UNIBI, IBL PAN, UGOE, Jisc, DARIAH)**

This task reviews the collected materials and their annotations created in T3.1 in order to reach evidence-based results concerning challenges preventing RFOs and RPOs from developing and aligning on policies for OA books. The analysis will be held to high academic standards and grounded by looking at country-specific situations, PESTLE-factors, and stakeholder perspectives. The deliverable from this task is D3.1 which is a report of the findings.

- **T3.3 Prepare materials for and launch the extended OA Book Toolkit (OABT) (Lead: OAPEN Partners: UNIBI, HANKEN, IBL PAN, Jisc, UGOE)**

Comprehensive and evidence-based materials are made available to support a better understanding of the landscape. This data feeds into the OA Book Toolkit (OABT) to strengthen it as a valuable resource for advancing and engaging actors in creating aligned policies. This task takes selected parts of the collected data, their annotations, and analysis from T3.1 and T3.2 to create descriptive examples, case studies, and articles published as part of the extended OABT.

The following PALOMERA partners have taken part in the WP3 activities:

WP3 Participants			
OAPEN	Hanken	DARIAH/ESF	IBL PAN
Jisc	UNIBI	SPARC Europe	
OPERAS	University of Coimbra	SUB Göttingen	

Table 1 - PALOMERA partners participating in WP3

II. Methodology

2.1 Overview

In order to gain a comprehensive understanding of the current landscape of OA policies for academic books in the European Research Area (ERA), a multi-faceted approach was employed. This section outlines the various analysis methods used to examine the collected data, including policy documents, interviews, surveys, bibliometrics, and contextual country data. By utilising these diverse methods, our aim has been to provide a holistic view of the challenges and opportunities associated with the development, implementation, and alignment of OA policies for academic OA books. Figure 1 provides a summarising process diagram of the different datasets collected, and how they each have been used for different types of analysis in support of the findings and recommendations that are the end-result of the project. Since the data collection processes for these individual datasets have already been thoroughly documented and reviewed in a published report resulting from WP2 (Maryl, Manista, Păltineanu et al., 2024), the methodology section is structured around the various analyses conducted. While briefly recapping the essential elements of each data collection process, the primary focus is on detailing the preparation and processing of the data performed in WP3 to develop the findings. WP4 of the PALOMERA project is dedicated to developing recommendations based on the findings of WP3 so this report does not contain the recommendations themselves, only the findings of the research on which the recommendations are based.

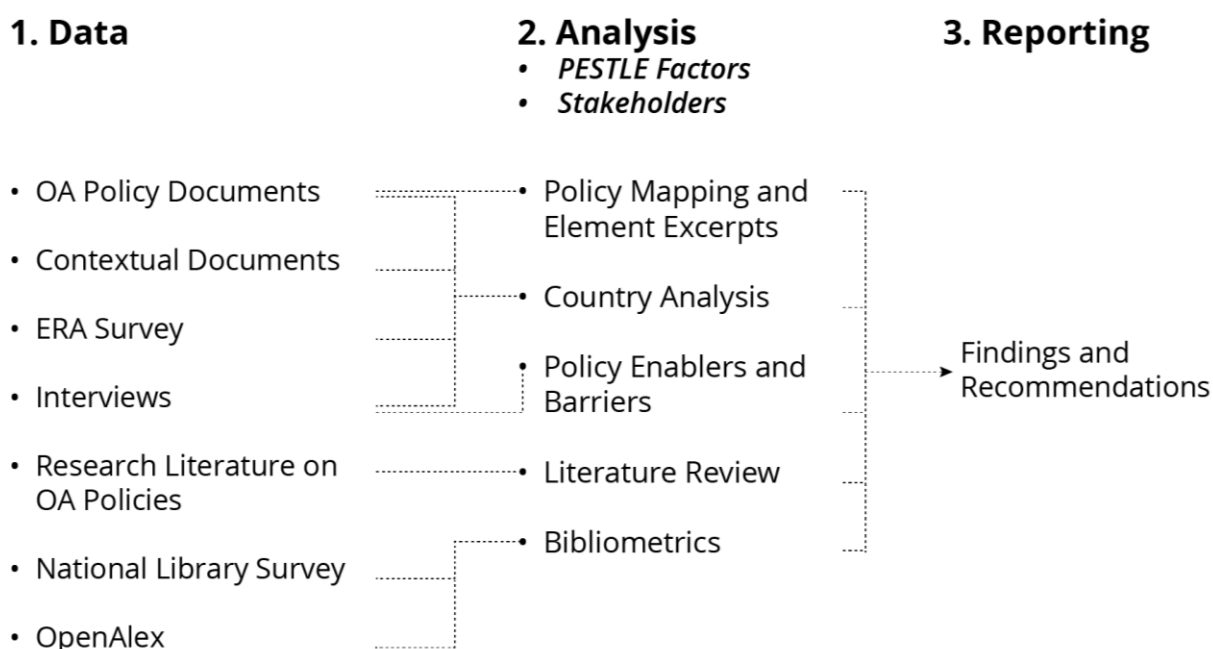


Figure 1 - Process workflow for the PALOMERA analysis

2.2 Analytical lens

The data collection work and analytical lens for the project has from the start been designed to capture and be sensitive to the political, economic, social, technological, legal, and environmental factors of OA book publishing, in what is referred to as PESTLE analysis (P for Political, E for Economic, S for Social, T for Technological, L for Legal, and E for Environmental). The

methodological origins of the PESTLE analysis stem from a book authored by Francis Aguilar (Aguilar 1967), and has since then been a popular thematic division of perspectives for gaining a better understanding of complex industry environments and societal challenges.

The other supporting analytical perspective we have had throughout the project is by undertaking stakeholder analysis. There has been a consistent drive to understand current development trajectories, motivations, experiences, challenges, perceived barriers, and short- and long-term expectations with regard to involvement in the space of OA books for different stakeholder groups. Our main focus has been to have a systematic approach to study RFOs and RFOs in the ERA, and national Open Science policy-makers to a secondary degree. Other stakeholder roles and perspectives have also been integrated where possible and available.

Through the PALOMERA project, we discovered that integrating PESTLE analysis with stakeholder analysis offers a rich and synergistic perspective. This approach allows for a systematic examination of complex issues by focusing on individual themes one at a time, each from the viewpoints of specific actors. An overview of the analytical framework is provided in Figure 2.



Figure 2 - PESTLE and stakeholder analysis framework

In the following subsections we present the relevant methodologies for each individual part of our analysis.

2.3 Literature review

We conducted a literature review to anchor and support the project in the best available knowledge concerning OA policies and related aspects. The literature review focuses on providing a comprehensive understanding of OA policies, with a particular emphasis on OA book publishing. It gathers insights on the formulation and implementation of OA policies at institutional and

national levels, assessments of the effectiveness of policies, and explores the role of OA policies within the broader context of open science. By examining literature specific to OA books, the review seeks to identify the unique challenges and opportunities associated with this form of publishing. The review also synthesises recommendations for developing effective OA policies and analyses the literature through the PESTLE framework, considering the Political, Economic, Social, Technological, Legal, and Environmental factors that relate to the core relevance of each reference.

During August 2023 we conducted an initial search for works that contain the words “open access policy” or “open access policies” in the title of the item using Google Scholar. This direct initial search was complemented by identifying and adding sources in a snowball-like way when discovered within the reference lists of the initial items. In total this search resulted in 89 items which included academic research articles, reports, white papers, website resources, as well as other types of works. To systematically profile and investigate these items we created a short series of questions for which we sought answers to:

- **What was the text about? What is the context (e.g. country/stakeholder) and time?**
- **How does the text relate to OA policies (or does it?)**
- **Is it only about journal OA policies or are OA books also included in some way?**
- **What type of evidence is provided (if there is any)? Is it e.g. a survey, bibliometric study or interview?**
- **Are some recommendations provided for the development/formulation of OA policies? If so, what are they?**
- **On a holistic level, which of the PESTLE (Political, Economic, Social, Technological, Legal, Environmental) factors relate to the core relevance of the text?**

While making these notes for each of the 89 items we also iterated on grouping of the items into different categories depending on their contents, creating new categories as needed if no existing one was already present. We present the result of this categorisation in the findings section for the literature review.

2.4 ERA-wide stakeholder survey

As part of the data collection, a survey was designed and distributed on the needs, obstacles and challenges of policy-making for OA books. It was directed at various stakeholder groups and aimed to identify attitudes and levels of knowledge about open access book policies in general as well as specific areas of interest to the project. In the following, we report on the results of this survey and draw initial conclusions for measures to promote OA book policies. The full survey report and



anonymised results can be found in Zenodo (Dreyer et al., 2024a), hence why this report only contains a summary of the key aspects of the ERA-wide stakeholder survey.

Rationale

The PALOMERA survey was planned from the very early stages of conceptualising the project. We sought to understand the reasons behind the lack of the inclusion of books within OA policies. It is important for the PALOMERA project to base its recommendations for change in this area based on a wide assessment of a range of relevant voices and indicators. We selected the survey method to gain an overview of attitudes towards and knowledge of OA policies, as well as specific practical measures related to books, such as the use of common persistent identifiers like DOI.

Questionnaire design

The questionnaire was designed to be fully answerable within 20 minutes without any research effort. It had only one free text field for additional feedback at the very end of the survey. Efforts were made to limit the survey length and format in order to reduce the drop-out rate. The questionnaire was designed through an iterative process of three internal review rounds with members of the PALOMERA project. After each review, comments from test respondents were incorporated into the design. A final review was carried out by the PALOMERA project advisory board.

The final version of the questionnaire was divided into six sections (see Dreyer et al., 2024b):

(1) General information about the respondents

The first section asked for general information about the respondents, such as nationality or stakeholder group. The stakeholder groups were derived from the PALOMERA typology to help analyse all types of data (including interviews, policy documents and papers). We differentiate between:

- Policymakers (national)
- Research funding organisations (RFOs)
- Universities and other research performing organisations (RPOs)
- Publishers
- Libraries
- Infrastructure providers
- Learned societies
- No organisation
- Other

Definitions of the stakeholder groups in the questionnaire were intentionally omitted because there are always exceptions and the definitions can therefore have a partially exclusionary effect. Furthermore, we were more interested in the respondents' self-attributions than in a factually correct categorisation or one that was in line with the definitions used internally in the project. Internal differentiation of stakeholder groups (e.g. national and local funders, university and non-university research institutions, commercial and institutional publishers, etc.) were also avoided in order to ensure that the set of distinctions in the survey correspond with the differentiations used within the project and to keep the level of complexity manageable. Overlaps therefore cannot be ruled out, for example between infrastructure providers and libraries. Multiple answers were

possible through checkboxes and self-evaluation was most important here. Survey participants' potential professional involvement in open access as well as their perceived level of expertise were further identified as important information for exploration of possibly related patterns among other questions, such as the acceptance of and specific design wishes for OA policies for books.

(2) Awareness of open access policy measures

In this group of questions, respondents were asked about their knowledge of the existence of certain policy documents and declarations. This group of questions served to determine the extent to which the respondents were familiar with their political OA landscape and, conversely, the degree to which they were aware of certain policy documents. Here, too, we aimed to gain insights by comparing the awareness of open access policies with the respective country as well as with the stakeholder group with which respondents self-identified.

(3) Stakeholders and players

The third group of questions was concerned with the perceived importance of the above-mentioned stakeholders and players in the policy development processes. We also asked how important these stakeholders should be. In this case, we aimed to gain insights through the comparison with the country and stakeholder group that respondents self-identified with.

(4) Attitudes towards the design of OA policies for books

In this section, we asked about attitudes towards OA policies. The question was whether the respondent would trust an OA policy at national or institutional level to bring about an improvement in the academic publishing system. In addition, we wanted to know whether there is an interest in participating in the design of such a policy and whether there is knowledge of participation opportunities and relevant policy actors.

(5) Attitudes and policy measures for open access books

The fifth question group concerned levels of satisfaction with the existing policy measures for the support of open access books, without going into the content of specific measures. Here we asked, among other questions, whether the publication of a book in OA is regarded as equivalent to the publication of a book in closed access. We also inquired how the respondents assessed the information situation related to open access book publishing at national and institutional levels as well as funding opportunities and technical infrastructures.

(6) Policy measures

The last and most extensive section was devoted to individual measures and attempted to find out how important these measures were considered to be on a five-point scale from "not important" to "very important". The selection of measures was based on the Arbeitsgemeinschaft der Universitätsverlage's (2023) quality criteria for open access books, which were evaluated individually to design this questionnaire and - where possible - reformulated as policy measures. For the sake of clarity, subsections were created here that were dedicated to the topics of "quality assurance", "visibility", "rights management", "metadata", "technical infrastructure", "costing and budget security" and the topic of general support measures. A total of 42 measures were evaluated in this way.

Sampling process and responses

The survey questionnaire was set up as a web survey using LimeSurvey software (LimeSurvey Community Edition, Version 3.27.30+211222). After this setup, the survey was online and accessible for participation from 22 August 2023 until 16 October 2023. Project-internal country teams dedicated to research in specific geographical areas were asked to facilitate the survey distribution. In this way, it was possible to distribute the survey across the ERA countries more effectively. Mailing lists and newsletters were the key channels of communication for survey distribution, in addition to posts on social media channels, announcements at events and direct contact with potentially interested persons. The relatively long time frame for responding to the survey allowed for several reminders to be sent out to the communities. Internal weekly survey progress reports informed project partners about response rates among countries and stakeholder groups to support distribution efforts.

By the end of the time frame, the survey received a total of 859 responses. However, these included 405 incomplete responses. Incomplete, in this case, means that a survey response was started, terminated somewhere in the process, and not finally submitted. The survey setup did not allow for saving the progress and resuming at a later stage. Therefore, the amount of complete responses that could be used for analysis was 454. 34 responses from countries outside the ERA were further excluded, finally leaving 420 complete responses from the ERA for analysis. We received between 30 and 40 responses each from France, Italy, and Slovenia. Between 10 and 25 responses were received from Finland, Moldova, the Netherlands, Norway, Poland, Portugal, Sweden and Switzerland. Country-specific analysis of the web-survey results only includes countries for which we received at least 30 responses i.e. France, Germany, Italy, Slovenia and the UK.

Since participants were able to identify as representing multiple stakeholders but only in one country, the sample size concerning responses from different countries ($n=420$) differs from the sample size concerning responses from different stakeholder groups ($n=574$). The responses per (self-identified) stakeholder group included 263 responses from RPOs, 166 responses from the professional field of librarians and 74 responses from publishers. Stakeholder affiliations included in the survey responses allow for identifying connections between participants' profession and interest in certain policy measures. We decided to include stakeholder groups with 17 or more responses in the dataset in order to include RFOs and infrastructure providers. This choice of including RFOs was motivated by the impression that the number of RFOs existing in the ERA is relatively low compared to some other stakeholder groups. It appeared, therefore, that the number of RFOs represented in this survey was relatively higher compared to e.g. represented libraries. However, it is noted in respective sections throughout the report that the analysis of the data from RFOs (17 responses) and infrastructure providers (23 responses) must be viewed with caution as there are limited numbers of responses and no strong trends should be identified.

Method of analysis

After the web survey was closed, the responses table was exported for further analysis with the programming language 'R' (R Core Team, 2024; version 4.4.1 including additional packages). Basic descriptive statistics were used in order to summarise absolute numbers, as well as percentages concerning likert scale answers, as part of the two greater analytical perspectives of this report (country perspective and stakeholder perspective).

Limitations



The results of the PALOMERA survey are subject to possible errors, including (1) errors caused by the characteristics of the sample of individuals answering as well as (2) errors caused by respective answers themselves (Fowler 2014, p. 13). This chapter follows Fowler's (2014, pp. 8-13) delineations of error types in surveys and points to important limitations to the presented results.

The most generic kind of error is the sampling error. Due to the fact that the responses are given by a sample of individuals rather than the whole population, chance-based variation of the answers compared to their representation in the whole population is inevitable.

Unlike sampling error with its random effects, bias affects survey results in a more systematic way. When interpreting the survey results, it is important to note that the sampling process produced a so-called "convenience sample" of an unknown target population. This is not random since respondents – mainly reached through mailing lists – decided themselves (i.e. self-selected) whether to participate or not. It is therefore most likely that the sample is characterised by patterns originating from this self-selection, producing bias due to over- or under-representation of certain groups of individuals. For example, individuals interested in or having a relatively high level of expertise in OA seem more likely to respond to this PALOMERA survey than individuals opposed to it or with a relatively low level of expertise.

Beyond limitations resulting from the characteristics of individuals answering, the answers themselves are also a possible source of error. Examples of this type of error in a survey include misunderstandings of survey questions, respondents lacking necessary information for answering or distorting responses for different reasons, such as morally desirable ideals. It can thus be the case that given answers differ from the 'truth', affecting the validity of survey results.

Additionally, it is important to acknowledge the inherent limitations of surveys as a research method. While surveys are efficient for collecting general responses, they may not capture the depth and nuance that qualitative methods, such as in-depth interviews, can provide. Our survey relied on predefined response options, which may not fully represent the complexity of the respondents' views or experiences. Moreover, surveys also lack the flexibility to probe deeper into unexpected or interesting responses, which can be a strength of qualitative approaches.

Despite these limitations, surveys remain a practical tool for gathering broad perspectives across a large and diverse population, which aligns with the goals of the PALOMERA project. The survey results, when interpreted with these limitations in mind, provide a valuable foundation for further research and policy development in the field of OA book publishing and complement the more in-depth approaches also undertaken by the project.

Data management and research ethics

The survey was carried out in accordance with the PALOMERA data management plan (Tóth-Czifra and Bandura-Morgan, 2023). Participation in the survey was informed, voluntary and appropriate measures were taken in order to guarantee the anonymity of respondents. Best efforts were made to remove any information that might accidentally identify individuals. All answers from a free text field for general feedback at the end of the survey, which were excluded from formal analysis, were removed as part of these efforts before publication.



2.5 Bibliometric assessment

Assessment of OpenAlex book metadata for monitoring OA book publishing

The aim behind quantitatively analysing book metadata was to provide contextualising information for the ERA and individual countries, so that recommendations for policy-making could be grounded in bibliometric details describing the current state of the transformation to OA. The choice of basing the assessment of book metadata solely on records from OpenAlex was triggered by its inclusion of metadata regarding books' geographical origin (e.g. institutional affiliation). This allowed the bibliometric analysis to remain within the geographical demarcations of the PALOMERA project.

Data collection was achieved through script-based downloading of JSON files from the OpenAlex API⁵. Filtering metadata records for 'book' and the years 2020 to 2023, an initial dataset of 413047 records was collected through the following query:

```
https://api.openalex.org/works?filter=type:types/book,publication_year:2020-2023&select=doi,id,publication_year,open_access,authorships,primary_location&per-page=200
```

In a second and third step, two datasets on 'publishers'⁶ and 'sources'⁷ were retrieved from the API. These two datasets were finally merged with the 413047 records in order to associate the books with country codes. The resulting dataset, utilised for the analysis and figures 11-14, included the metadata fields: (1) 'work_id' (internal to OpenAlex), (2) 'year', (3) 'doi', (4) 'is_oa', (5) 'authorship_institution_name'⁸ (here called institution), (6) 'authorship_institution_ror', (7) 'authorship_institution_country', (8) 'source_id', (9) 'source_name', (10) 'source_country', (11) 'host_organization' (here called publisher), (12) 'host_organization_name', (13) 'host_organization_country', (14) 'parent_host_organization' (here called parent publisher, after OpenAlex terminology⁹), (15) 'parent_host_organization_name' (16) and 'parent_host_organization_country'.

For bibliometric data collection and analysis, scripts written in the programming language 'R' (Version 4.4.1; R Core Team, 2024), and including Tidyverse packages (Wickham et al., 2019), were utilised.

National libraries survey

⁵ <https://api.openalex.org/>

⁶ <https://docs.openalex.org/api-entities/publishers>

⁷ <https://docs.openalex.org/api-entities/sources>

⁸ <https://docs.openalex.org/api-entities/institutions>

⁹ <https://docs.openalex.org/api-entities/publishers/publisher-object#lineage>



Collecting metadata, cataloguing and making all publications from a particular country available is usually the responsibility of national libraries. In our search for the most comprehensive and qualitatively reliable source of data on academic OA books, the national libraries seemed to be the "natural" points of contact. Thanks to the support of the European Network of Academic Libraries LIBER, we were able to carry out a survey to the responsible contact persons at all ERA national libraries about the current data on academic OA books.

We intended to obtain as much data as possible together with an assessment of the level of detail in cataloguing practices. In the survey, we focused on the following questions:

- How many books were published in 2018-2022 (each year)?
- How many e-books were published in 2018-2022 (each year)?
- How many of these e-books can be identified as open access? (each year)?
- Under which licence were these books published?
- How do you define "academic book"?
- Do you have a separate category for "academic books"?
- How many academic books were published in 2018-2022 (each year)?
- How many academic e-books were published in 2018-2022 (each year)?
- How many of these e-books can be identified as open access (each year)?
- Under which licence were these books published?

Thirty-seven libraries were contacted. A total of 16 libraries responded, 14 of which provided data (data availability provided as a map as Figure 3).

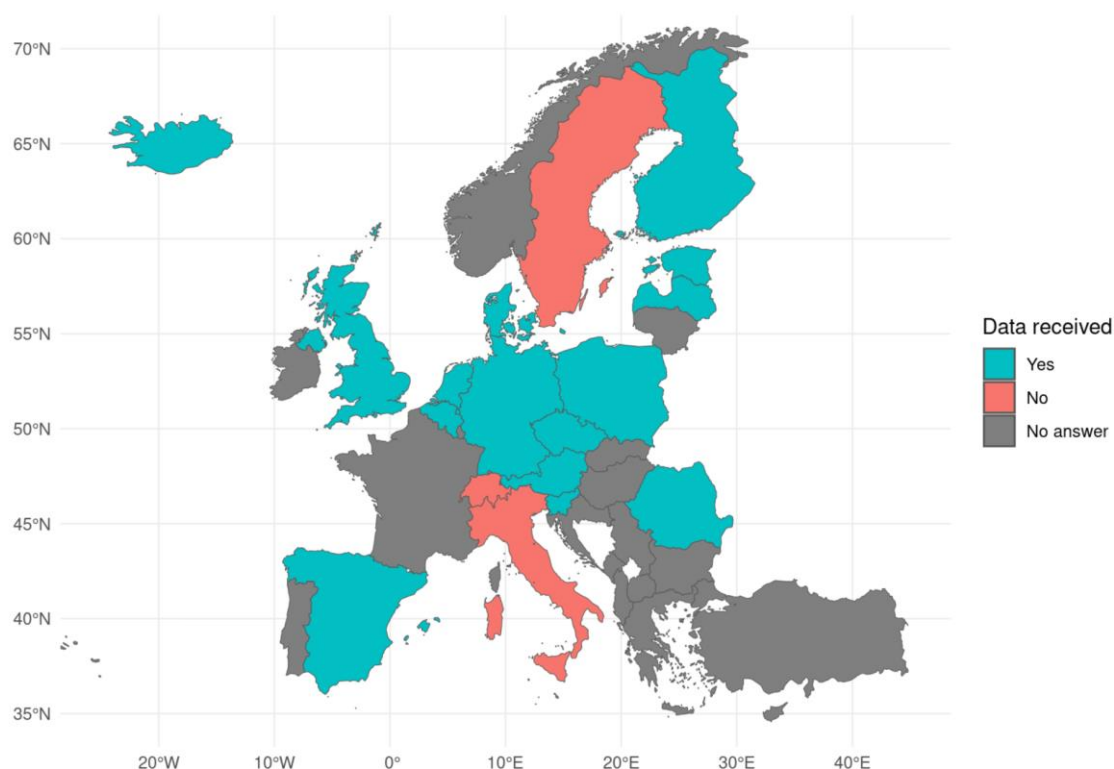


Figure 3 - Responses and data availability for the national libraries survey. Note: For Spain response was received from Catalonia, and the UK response was received from Scotland

All the national libraries surveyed that responded stated directly or indirectly that they were unable to provide all the data requested. A comparison of the various responses showed that the resources and sources used differ widely in terms of their type. Variations in the coverage of the data resources surveyed also arise due to the different structure of the obligation to provide data.

2.6 Policy analysis

OA policies have always been the heart of the PALOMERA project and the policy analysis conducted was designed to provide a representative overview of the OA book policy landscape for the ERA countries. In addition to a broad geographical span, the purpose was also to go into close detail on the actual contents and formulations of the collected policies, to a level that we are not aware that any other study has done before. The full workflow for the collection of policy documents is described in Maryl, Manista, Păltineanu et al. (2024), with the policy documents also being openly shared through the Knowledge Base (Knowledge Base, n.d.).

In this section, we describe the multi-step methodology used for collecting and analysing the OA policy documents within the project (see Figure 4). The aim of this analysis was to identify similarities and differences in approaches to OA book policies across countries and stakeholders. As shown in the figure, the process began with the collection of 474 documents, followed by a relevance screening that resulted in 246 documents being deemed relevant for further analysis. These relevant documents were then coded for the presence or absence of 17 policy elements. Finally, for the 113 documents that specifically addressed books, excerpts were collected and analysed in detail to gain deeper insights into the nuances of OA book policies.

Policy Documents Process

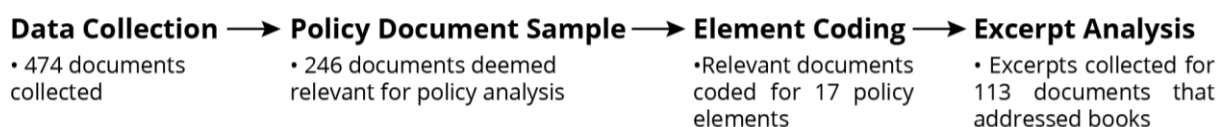


Figure 4 - Process diagram for analysis of the collected OA policies

Collecting policy documents

The initial dataset comprised 474 documents published by various stakeholders, including national and regional policy makers, RPOs, and RFOs, spanning 38 countries between 2012 and 2024. This timeframe was strategically chosen to encompass the decade following the European Commission's (EC) formalisation of its approach towards open science (EC 2012) and the implementation of this approach in Horizon 2020, which has likely had a significant impact on national policies.

In addition to manually seeking out materials from the webpages of known organisations, to ensure a comprehensive sample, searches were conducted using a combination of keywords translated into local languages: [Country name] AND policy / recommendation / guidelines / study / report/ AND open/access AND monographs, books, publishing. The search aimed to achieve representative samples of documents from all countries, focusing on capturing a good

geographical spread within each country and identifying a varying size of organisations. There was no set minimum or maximum for the number of documents to be collected for each country since circumstances vary so much (e.g. with some countries not having OA policies, some countries being very centralised in policymaking vs some being very decentralised), but the instruction was to at least capture the OA policies of the largest RPOs and RFOs as well as including some geographical diversity in the sample.

Since the area of OA policies is still heavily emerging and under rapid development we did not set overly strict requirements on what counts as a policy in either format or content. However, in order to separate out contextual documents, we developed a specific definition of an OA policy for the purposes of our study.

For this study, an OA policy is a document that meets both of these criteria:

- The document is issued by a policymaker or an organisation that is either an RFO, RPO, library or infrastructure provider, or organisation with regional or national policy impact.
- The document requires or encourages OA scholarly publications that are associated with or supported by the issuing organisation through funding, affiliation, or other forms of upstream involvement.

Policy document sample

The final dataset included 246 policy documents. The documents themselves did not always label themselves as policies, but could be strategies, institutional guidelines, recommendations but essentially still fulfil our definition of a policy. Information that related to a specific policy was sometimes distributed over several documents, such as FAQ pages associated with a parent document that contained more detailed information about the practical implications of the policy. In the case of such related documents, these had been merged with their parent document to have all the information that relates to one policy counted as one item. Throughout this report, we use the terms “policy documents” and “policies” interchangeably to refer to these different types of documents. All documents were coded for stakeholder type, year of publication, and whether they mention OA journal and book publications explicitly or used an umbrella term, such as “all publications.”

Figure 5 presents an overview of the number of policy documents collected per country across Europe, with countries colour-coded based on the number of documents they have. For countries in grey no relevant documents were found, those in light green have 1-10 documents, medium green indicates 10-20 documents, and dark green represents more than 20 relevant documents in the sample. The plot highlights that for most countries we have 6 or less policies collected. Germany has the highest number of policies in the sample with 48 documents collected while Albania, Bulgaria, Croatia, North Macedonia, and Montenegro lack documents.



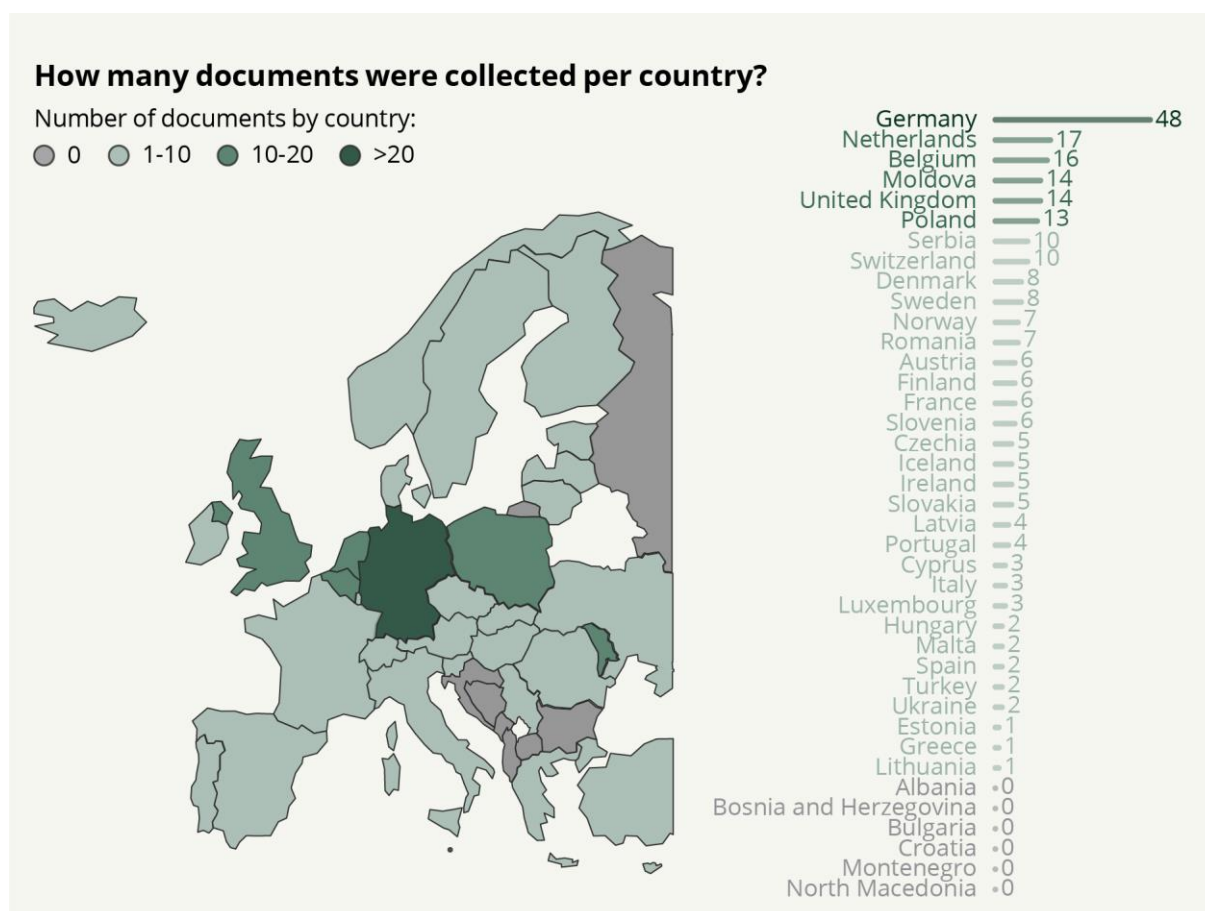
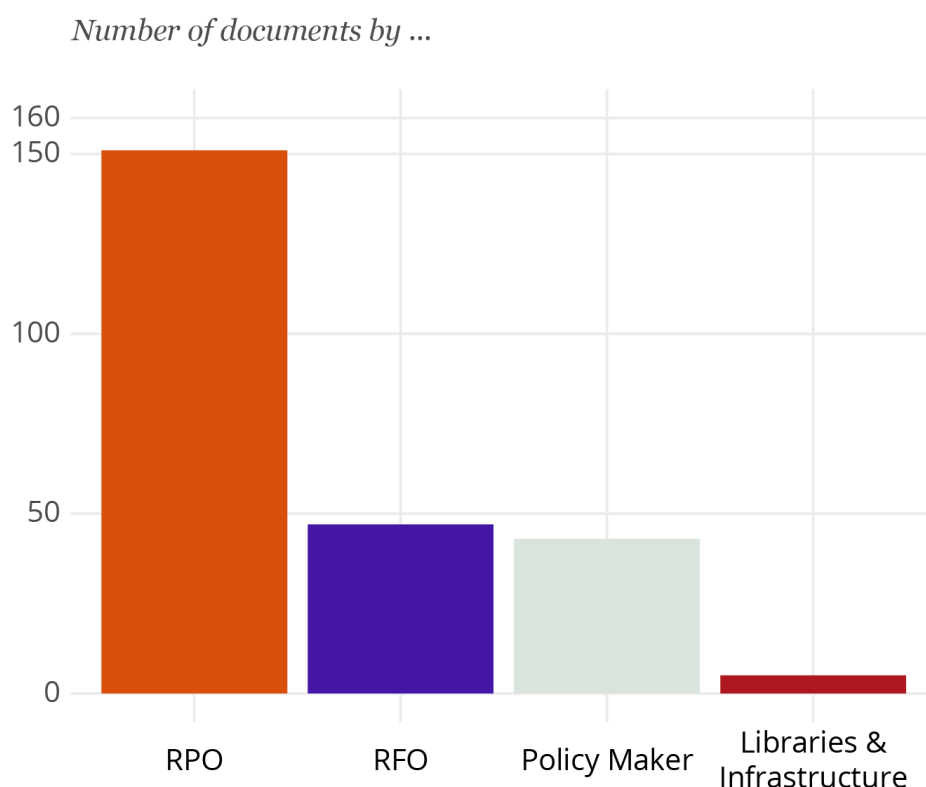


Figure 5 - Distribution of collected OA policies based on the country of the issuing organisation

However, the low number or lack of relevant documents in some countries does not necessarily reflect the level of OA policy activity as the availability and accessibility of data in certain countries may influence the number of documents collected. The figure serves as a starting point for understanding the distribution of the collected policy documents and highlights the value of integrating the other data sources and analyses within the project. In particular, the interviews and contextual documents have been used in conjunction in this project to gain a more comprehensive understanding of the OA policy landscape.

To give another perspective to the background of the collected policies, Figure 6 shows the distribution of collected OA policies based on issuing stakeholder. RPOs are the most prevalent with over three times as many policies as any other stakeholder group.



Note: The documents included in this analysis were published between 2010 and 2023 (n = 246).

Figure 6 - Distribution of collected OA policies by stakeholder

Coding policy elements

In the next step we coded the documents for the presence or absence of 17 policy elements relating to policy scope, OA models, rights and licensing, practical implementation, funding, compliance and enforcement, policy management and alignment. As a starting point we used findings from earlier research on OA policies to identify elements that we thought were central to this project as well (please see the literature review section later in this deliverable). We also applied an iterative process of familiarising ourselves with the collected policies and observing existing practices which we then codified.

It is worth noting that we encountered instances of cross-referencing between policies, particularly cases where RPO policies instructed researchers to comply with RFO policies. While we recognized the interconnected nature of the policy landscape, our focus was on analysing individual policies based on their own content. Documents that solely listed information for grantees from different RFOs without presenting their own policy were excluded from our analysis. In cases where documents included both their own policy and references to RFO policies, we coded only the elements of their own policy, not the referenced RFO policies.

A complete list of the individual elements is presented in Table 2.

Policy Element	Description
Policy Scope	
Scope: Types of Books	The scope of book-related content covered by the policy, including book chapters, monographs, edited volumes, and other types of scholarly publications.
Scope: Authors	Who the policy applies to, defining who is subject to its requirements regarding open access publication. Example: institution-wide, or department- or discipline-specific.
OA Models	
OA Models	Specific OA model(s) that the policy prescribes or encourages, such as Gold OA (OA through publisher, often involving a fee), Green OA (self-archiving in a repository), or Diamond OA (OA through publisher without any fees).
Rights and Licensing	
Licensing	The type of open licences recommended or required for OA publications under the policy. Example: CC BY, CC BY-NC, CC BY-ND, CC BY-NC-ND
Grant of Rights/Copyright Retention	Provisions to ensure that the author retains the rights to publish OA, such as recommending a non-exclusive publishing agreement.
Practical Implementation	
Time of Deposit	A designated timeframe within which authors are required to make their work OA under the policy.
Deposited Version	A specific version of the work that authors are required to deposit or make OA under the policy (e.g., pre-print, post-print, publisher's version).
Publishing Venue Restrictions	Limitations for the selection of publishing venues for compliance with the policy's requirements (e.g., national lists, DOAJ/DOAB)
Funding	
Funding Availability	Whether funding is provided for covering article (APC) or book processing (BPC) charges as part of the policy.



Funding Period	The specific duration during which authors can apply for and utilise the provided funding to cover the costs associated with OA publication.
Compliance and Enforcement	
Exceptions	Specific circumstances or scenarios where certain rules or requirements might not apply, offering flexibility to authors and publishers.
Compliance Monitoring	Mechanisms by which adherence to the OA policy is assessed and verified, ensuring that authors and institutions fulfil the stipulated requirements.
Incentives for Compliance	Positive motivations or benefits offered to authors and institutions who adhere to the OA policy.
Disincentives for Non-Compliance	Consequences or penalties for authors or institutions who do not follow the OA requirements, discouraging non-compliance.
Policy Management and Alignment	
Policy Review Schedule	Regular intervals or timelines at which the OA policy undergoes evaluation, updating, or revision to ensure its relevance and effectiveness.
Policy Licence	Indicates whether the policy document itself is released under a specific licence that governs how the policy text can be used, shared, and modified.
Plan S	Is Plan S mentioned? The principles are to be implemented step by step by all universities and universities of applied sciences.

Table 2 - Listing of OA policy elements and their descriptions

These particular elements were chosen because they collectively capture the essential components and considerations that shape OA policies for academic books, as well as cover the PESTLE dimensions to the degree possible. Each element contributes to the overall picture, shedding light on the key factors that influence the development, implementation, and effectiveness of such policies, as well as the associated challenges, opportunities, and formulation of best practices.

For instance, examining the policy scope helps understand the breadth and inclusivity of the policy, while exploring the OA models provides insights into the preferred routes for making academic books openly accessible. Rights and licensing provisions are crucial for ensuring that authors retain the necessary rights to publish their work openly, and practical implementation details offer guidance on the timeline and requirements for depositing the work.

Funding availability and duration are critical considerations, as they directly impact the feasibility and sustainability of OA publishing for academic books. Compliance and enforcement mechanisms, including exceptions, monitoring, incentives, and disincentives, play a vital role in ensuring the effectiveness and adherence to the policy.



Policy management and alignment elements, such as review schedules and policy licences, contribute to and demonstrate the long-term management and adaptability of the policies. Finally, the inclusion of Plan S as a specific element acknowledges the growing influence and alignment of open access policies with this international initiative.

To ensure the accuracy and reliability of the coding process, all documents underwent a thorough review by two independent coders. Furthermore, for documents that specifically mentioned books, relevant excerpts corresponding to the policy elements were extracted from each document, providing an extra layer of scrutiny and validation to the analysis.

Extracting policy excerpts

For documents that explicitly address books ($n = 113$), relevant passages were selected and manually extracted by thoroughly examining each document, identifying sections that corresponded to the coded elements. For documents written in languages other than English, translations were generated using Google Translate and included alongside the original passages.

In total, this process yielded a collection of 787 excerpts, providing a rich resource for further analysis and comparison of OA book policies across various stakeholders and countries, also highlighting good practices.

Policy element analysis

Following the extraction of relevant passages from the OA policies that specifically addressed books, we conducted analysis of the content. This analysis was carried out by a team of five researchers who examined the extracted excerpts.

Our approach combined quantitative and qualitative methods. We first categorised and counted mentions of the specific policy elements. We then conducted a more in-depth qualitative analysis, focusing on identifying patterns, themes, and notable examples within the policy texts. While we did not employ formal coding checks or predefined criteria, our examination was guided by the following key aspects:

1. **Comparing excerpt variations across different stakeholder categories:** This aspect focuses on examining how the language and content of the excerpts differ based on the type of stakeholder, such as national and regional policy makers, RPOs, and RFOs. By comparing and contrasting the approaches taken by various stakeholders, we aimed to identify potential patterns, similarities, and differences in how open access book policies are formulated and implemented across different actors.
2. **Temporal influence on policy elements and their articulation:** The analysis explores whether the presence of certain policy elements and the manner in which they are expressed in the excerpts are influenced by the age of the policies. By examining older and newer policies, we seek to determine if there have been notable shifts or evolution in the way open access book policies are crafted and communicated over time. This aspect aimed to provide insights into the development over time and current trends in open access book publishing.
3. **Assessing the spectrum of variability in element expression:** This aspect delves into the degree of variation in how the text related to each element is articulated across



different policies. The analysis aimed to determine whether the excerpts exhibit a high level of similarity or if there is a wide range of approaches in expressing the same element. By identifying examples from both ends of the spectrum, the study aimed to illustrate the diversity or consistency in the language and content used to convey specific aspects of open access book policies.

4. **Highlighting exemplary instances of element expression in policies:** The analysis aimed to identify and showcase excerpts that effectively and clearly articulate the elements of open access book policies. By analysing what makes these examples stand out, the analysis aims to provide guidance and best practices for crafting well-defined and comprehensive policies. This aspect can contribute to the development of more robust and effective open access book policies in the future.
5. **Identifying suboptimal examples of element expression in policies:** Conversely, the analysis also examines excerpts that may be unclear, ambiguous, or lacking in essential details when expressing certain elements of open access book policies. By exploring what makes these examples less effective, the study aimed to highlight potential pitfalls and areas for improvement in policy formulation. This aspect sought to provide insights into how open access book policies can be refined and strengthened to better support the goals of open access publishing.

2.7 Interview analysis

As part of the project's comprehensive investigation into OA book policies in the ERA, we conducted a series of in-depth interviews with individuals from various ERA countries. These interviews served as a crucial component of our mixed-methods approach, complementing the data gathered from policy document analysis and surveys.

The aim of the interviews was to expand and deepen the factual knowledge obtained from documents and surveys, specifically focusing on the how and why aspects of OA policy creation and implementation. The interviews sought to uncover the processes, motivations, and factors behind the development of OA policies or the lack thereof. The full workflow for the data collection related to the interviews up until transcription is described in Maryl, Manista, Păltineanu et al (2024). Transcripts are available through the Knowledge Base (Knowledge Base, n.d.) in the case that permission to share them was granted.

In this section, we describe the methodology used for conducting and analysing interviews related to OA book policies (see Figure 7). The aim of this analysis was to identify enablers and barriers to OA book policy development and implementation across different national contexts and stakeholder perspectives. As shown in the figure below, the process began with data collection, comprising 39 individual interviews and 3 stakeholder group interviews. The next step involved coding these 42 interviews according to the PESTLE framework, i.e. marking which interview segments (one sentence or more each) can be seen to be thematically related to Political, Economic, Social, Technological, Legal, and Environmental dimensions. Following the PESTLE analysis, the coded segments ($n = 1,796$) were further analysed to identify their role in policy development and classified as enabling, hindering, or neutral factors. Finally, the analysis focused on those segments coded as either policy enablers or barriers ($n = 1,587$) with the aim of organising them into broader themes. This thematic analysis provided deeper insights into the factors influencing OA book policy development and implementation.

Interviews Process

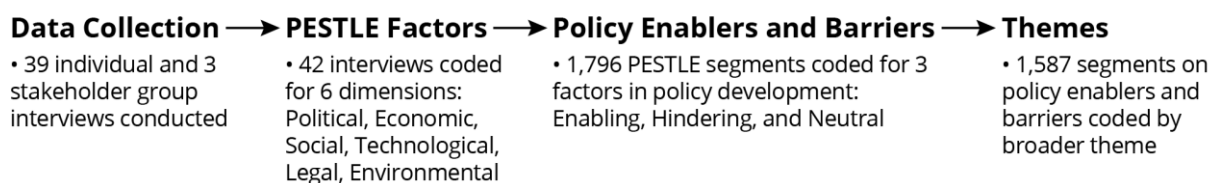


Figure 7 - Process diagram for the interview analysis

Data Collection

The interviews were conducted with respondents in their professional capacities, primarily focusing on their immediate institutional experiences. The respondents include:

- National policymakers: Providing insights into national and regional policies
- Research funding organisations (RFOs): Discussing funder policies
- Research performing organisations (RPOs): Sharing information about institutional policies
- Publishers: Elaborating on their policies
- Librarians: Discussing institutional policies from their perspective

In cases where no OA policy existed, the interviews aimed to understand the reasons and factors behind the absence of such policies. By gathering insights from various countries, the interviews contribute to a comprehensive understanding of the processes, challenges, and opportunities associated with the creation and implementation of OA policies in different geographical contexts.

Each interview was conducted over approximately 60 minutes, allowing for an in-depth exploration of the topics covered in the questionnaire. The interviews were transcribed with HappyScribe and translated into English via DeepL (if needed), and then proofread. To protect the privacy of the interviewees, all transcripts were anonymised, replacing any personally identifiable information with pseudonyms or generic descriptors.

The selection of respondents for the interviews followed a purposive sampling approach, aiming to ensure a diverse sample across different countries, stakeholder groups, and demographic characteristics. In total, we conducted 39 individual interviews and 3 group interviews, which focused on a specific stakeholder group, spanning 36 ERA countries and included 47 interviewees. Despite our best efforts to include representatives from all ERA countries, we were unable to secure participation from Albania, North Macedonia, and Montenegro.

Interview questions

The interview questionnaire was designed to assess different aspects of OA policies regarding books, including PESTLE factors. The questions were structured into several sections, each focusing on a specific component of the OA book publishing landscape. The full interview guide is provided in Appendix 1.



The interviews started with a set of warm-up questions, providing context for the rest of the interview. These questions focused on the interviewee's professional experience relating to OA books, the definition of books in their country or stakeholder context, and the current status of national or regional OA book policies.

The **political** component section delved into the process of policy implementation, including agenda-setting, policy formulation, and evaluation. Questions in this section addressed the relationship between national and institutional policies, the existence of an OA book policy in the interviewee's institution, and the process of creating and implementing such a policy.

The **economic** component section focused on funding instruments and models relating to OA book publishing. Interviewees were asked about the sources of funding for OA academic books, the sufficiency of funding, and incentives for authors to publish OA books. Additional questions were tailored to specific stakeholder groups, such as funders, publishers, and research performing organisations.

The **social** component section explored the social dimension of OA book publishing and policy, including the role of academic books in research assessment, the perceived prestige of OA publications, and key arguments used in debates around OA books. This section also addressed disciplinary differences, publication languages, and the presence of topics such as bibliodiversity and multilingualism in the public discourse.

The **technological** component section inquired about the infrastructure supporting OA book publishing and policy, such as publishing platforms and preservation. Interviewees were asked about existing technical infrastructure, tools for policy monitoring, and support for innovative or experimental book formats.

The **legal** component section focused on the legal aspects of OA book publishing and policies, including regulatory requirements, copyrights, and licensing. Questions in this section addressed policy compliance monitoring, consequences for non-compliance, and the use of specific licences for OA books.

The **environmental** component section explored the progress of the transition to OA books, the research environment's support for OA books, the perception of digital-only and print books, and the use of environmental arguments to promote OA books.

The interview concluded with an open-ended question, allowing interviewees to provide any additional information or thoughts about OA book policies that may have been omitted during the interview.

Overall, the interview questionnaire covered a wide range of topics related to OA book publishing and policies, enabling one to gain a comprehensive understanding of the current landscape and future prospects of OA academic books from the perspectives of various countries.

Transcript coding

PESTLE Framework

The coding process of the interview transcripts in MaxQDA followed the PESTLE dimensions, with an additional "Other" category for topics not explicitly covered by PESTLE (see Table 3). This



approach allowed for a systematic and comprehensive analysis of the various factors influencing OA book publishing and policies.

Code	Definition
Political	Political dimension of OA books publishing and policy; e.g: influence on science policy incentives/disincentives for compliance; international/national interactions.
Economic	Economic dimension of OA books publishing and policy; e.g: book processing fees, royalties, design and participations in funding instruments.
Social	Social dimension of OA books publishing and policy; e.g: publication venue and format priorities, research assessment, disciplinary differences, publication languages.
Technologic	Technological dimension of OA books publishing and policy; e.g: publishing platforms, content and metadata standard, preservations.
Legal	Legal dimension of OA books publishing and policy; e.g: regulatory requirements, copyrights, licensing.
Environmental	Environmental dimension of OA books publishing and policy; e.g: aspects related to production and distribution of paper copies. In this section we ask about the environmental dimension of OA book publishing understood narrowly as a research environment and broadly as a physical environment.
Other	Topics, issues, problems not mentioned in PESTLE model and relevant for the research project

Table 3 – Interview transcript codebook

The PESTLE framework provided a structured approach to analysing the complex landscape of OA book publishing, considering the diverse perspectives of stakeholders across different countries. Organising the data according to these dimensions allowed for developing a holistic understanding of the current state of OA books and identifying potential challenging aspects in policy development and implementation, going beyond simply studying the existing policies themselves.

In addition to the PESTLE dimensions, the "Other" category was included to capture any topics that did not fit neatly within the predefined categories but were deemed relevant to the project in some way.

To ensure the reliability and consistency of the coding process, a two-step approach was employed. In the first step, as part of WP2, the interview transcripts were initially tagged by a group of coders using the PESTLE framework, providing a preliminary coding of the interviews. In the second step, as part of WP3, a second round of coding was conducted on the same interview transcripts. Coders applied the PESTLE tags independently, without reference to the initial coding done in WP2. The purpose of this second coding round was to validate the initial categorization and to identify any discrepancies or inconsistencies in the application of the PESTLE framework.

Following the completion of both coding rounds, two coders used MAXQDA's intercoder reliability function to harmonise the two independently coded versions of each interview transcript where necessary. The requirement for automatic agreement was set at 90% overlap or more at the text segment level. Segments that met this criterion were considered to be coded in the same manner and left as-is. For segments that failed to meet the automatic agreement criterion, each disagreement was manually reviewed and the reasons for the deviations were resolved. During this process, two main types of disagreements were identified:

- **Difference in coding unit length:** In cases where one coder applied a code to a longer or shorter segment of text compared to the other coder, we adopted the expanded segment and extended it if needed to capture any discarded parts. This approach was also applied when an interviewee's answer was split over two pages, and one coder applied a code to the answer passage on both pages, while the other coder only applied the code to the answer on the first page, leaving the rest of the answer on the second page blank. Additionally, this issue occurred when one coder included the interviewer's question in the coded segment, while the other coder only coded the interviewee's answer.
- **Difference in coded content:** When one coder applied an additional tag that the other coder did not, we assessed the relevance and value of the additional tag. If the additional tag was deemed relevant and contributed to a more comprehensive understanding of the passage, it was retained. Conversely, if the additional tag did not correspond to the coding instructions and did not add significant value to the interpretation of the passage, it was removed.

Despite our efforts to ensure a reliable coding process, it is important to acknowledge the inherent subjectivity and complexity of qualitative data analysis (Cole, 2023). The PESTLE framework provided a structured approach to categorising the data, but the interpretation and application of these categories may vary between individual coders. Throughout the coding process, we encountered instances where the two coders applied different tags or coded segments of different lengths. Manually reviewing and resolving these discrepancies aimed to develop a more cohesive and consistent coding scheme. However, we recognize that complete agreement between coders is not always possible, given the nuanced nature of the data and the potential for multiple valid interpretations. Notwithstanding these challenges, we believe that the two-step coding process and the efforts to reconcile differences between coders contributed to a more robust analysis of the interview data. This approach helped to mitigate potential biases and ensure that the findings were grounded in a careful and systematic examination of the data.

Coding Policy Enablers and Barriers

After completing the initial coding process using PESTLE factors, we conducted an additional round of coding to identify factors that have an enabling, hindering, or neutral impact on policy development. This step aimed to provide a more nuanced understanding of the various influences shaping the OA book publishing landscape.

The coding process involved a systematic review of the interview transcripts, focusing on passages that mentioned factors influencing policy development. We assigned specific codes to these passages based on three main categories:

- **Enabling factors** (coded with "+"): These are factors that facilitate, support, or drive the development of policies. They may include e.g.:

- Political support
- Available resources
- Legal frameworks that provide a conducive environment
- Stakeholder engagement
- Shared norms and values that align with the proposed policies
- **Hindering factors** (coded with "-"): These are factors that obstruct, challenge, or impede the development of policies. They may include e.g.:
 - Lack of political will
 - Limited resources
 - Conflicting interests among stakeholders
 - Shared norms and values that resist the proposed policies
- **Neutral factors** (coded with "0"): These are factors that neither clearly enable nor hinder policy development, but may still influence the process. This includes contextual passages.

During the coding process, we ensured that all previously coded PESTLE segments were assigned one of the three codes ("+", "-", or "0"). In cases where a single passage mentioned multiple policy-enabling or hindering factors, these were coded separately to capture the complexity of the influences at play (see Example 1 in Figure 8 below). However, for overlapping PESTLE codes, separate factor codes were not always necessary. For instance, if a passage discussed the same policy-enabling or hindering factor but had multiple PESTLE-codes assigned to it, only one code was attached (see Example 2 in Figure 9 below).



Figure 8 - Example 1: Passage discusses more than one policy-enabling/hindering factor.



Figure 9 - Example 2: Passage discusses the same policy-enabling/hindering factor but has 2 or more PESTLE codes assigned.

The goal of this additional coding round was to identify and categorise the various factors that shape policy development and implementation, as mentioned by the interviewees. By doing so, we aimed to provide a more comprehensive understanding of the drivers and barriers influencing open access book publishing policies across the ERA. This coding process, in conjunction with the initial PESTLE coding, contributed to a more granular analysis of the interview data, enabling us to identify patterns and key factors that impact the OA book publishing landscape.

Themes

Following the identification of enabling, hindering, and neutral factors influencing policy development, we conducted a thematic analysis of these coded passages (Braun & Clarke, 2006). This step involved reviewing the factors within each PESTLE category and grouping them into specific themes based on their shared characteristics or underlying concepts.

The thematic coding process was conducted as follows:

1. We reviewed the coded passages within each PESTLE category, focusing on the enabling and hindering factors.
2. We identified recurring patterns, ideas, or issues within these passages and created a set of themes that captured the essence of these commonalities.
3. Each relevant passage was then assigned one or more thematic codes, depending on the complexity and richness of the content.
4. In cases where a passage touched upon multiple themes, we applied all relevant thematic codes to ensure a comprehensive capture of the underlying factors.
5. We continuously refined and adjusted the themes as we progressed through the coding process, ensuring that they remained relevant and representative of the data.

By conducting this thematic analysis, we aimed to provide a more structured and synthesised understanding of the factors influencing policy development within each PESTLE category. Some

examples of the themes that emerged from the political and hindering factor segments in this analysis include e.g.:

- Government inactivity
- Lack of specific policies
- Incentives and funding models
- Policy renewal and adaptation to changing landscapes
- Policy effectiveness and implementation challenges

By comparing themes across different countries, we could identify patterns and similarities in the challenges faced by stakeholders in various contexts. This helped identify common barriers and enablers, as well as highlight unique challenges specific to certain regions. Furthermore, examining the thematic patterns across countries provided insights into the broader trends and dynamics influencing OA book publishing policies in the ERA, contributing to a more comprehensive understanding of the current landscape. Ultimately, this lays a path to identify potential areas for collaboration, knowledge sharing, and policy harmonisation across national boundaries.

2.8 Country analysis

In addition to the thematic analytical components offered by the PESTLE and stakeholder analysis, a very practical dimension of all data in the PALOMERA project is to individual country contexts. This perspective has been firmly in mind from the start to ensure that the project is able to present a representative snapshot of the OA book landscape across 38 ERA countries. To do so, a tool/spreadsheet was designed to collect and organise key information about various aspects of the OA landscape in each country, with a particular focus on OA book publishing. The data collection was structured using the PESTLE factors, although the Environmental factor was not directly applicable in this context. This approach allowed us to pull together evidence across various data sources, including evidence-based indicator data, links to external resources, and our own qualitative observations and notes for each country, in order to capture the complexities of the constantly evolving policies and practices. Indicators were carefully defined and researchers were assigned specific categorisation instructions to facilitate the analysis. Table 4 outlines the indicators and their descriptions in detail.

Political indicators included the presence and scope of national OA policies—broadly defined as encompassing policies, national plans, strategies, and roadmaps promoting OA—the level of national OA advocacy, the presence of Plan S funders, and the presence and scope of OA policies of RFOs—higher-level documents, not guidelines of individual funding calls—and RPOs. Data for these indicators was collected through a combination of project-specific efforts and existing resources. Our project-specific data collection involved comprehensive policy mapping, gathering of country contextual information, and conducting stakeholder interviews. These efforts were complemented by data from established sources such as OpenAIRE, the Council for National Open Science Coordination (CoNOSC), UNESCO, the cOAlition S webpage, and known national policymaker, funder, and research organisation websites.

Economic indicators focused on RFO funding for BPCs, RPO support for OA book publishing, and national R&D funding as a percentage of GDP. For the first two indicators, we drew on the policy mapping analysis and manually searched RFO and RPO websites to assess their level of BPC

funding. To further gauge the level of RPO support for OA book publishing, we investigated whether RPOs had established university presses that publish OA books and examined RPO memberships in several prominent OA initiatives, including OAPEN, Open Book Collective, Open Book Publishers, and Opening the future. For national R&D funding data, we relied on statistics from the World Bank.

The **social indicators** examined the academic OA book publishing landscape to assess the breadth and depth of OA publishing options for each country. To gather data for this indicator, we relied on the interviews and the contextual information about the country's academic publishing ecosystem collected for this project.

Technological indicators assessed the maturity of OA repositories and the presence of national OA book infrastructure. Data for both indicators was collected from the interviews as well as contextual information for each country. For the repository maturity indicator, we also utilised data from OpenDOAR (OpenDOAR, n.d.).

The **legal indicator** focused on secondary publishing rights, simply noting their presence or absence for each country.

Each indicator was categorised using a tailored classification system designed to capture the nuances of different aspects of the OA landscape. For national OA policies, we used a binary "Yes/No" system, with an additional "Yes*" to denote policies that explicitly include OA books. For RFO and RPO OA policies, we employed a more detailed classification system ranging from "No OA Policy" to various levels of "Recommendation" and "Requirement," with asterisks indicating the inclusion of books. For example, "Requirement**" signifies a requirement for both journals and books. In cases with multiple organisations, an overall assessment was made based on the individual classifications. For the other indicators, we maintained the Low, Medium, or High categorization based on specific criteria. This approach allowed us to capture the varying degrees of development, implementation, and specificity across different aspects of the OA landscape in each country, providing a more detailed picture of the OA ecosystem.

Additionally, we included sections for summarising the main challenges for OA book policy development and overall observations relevant to OA book publishing in each country.

Indicator	Categories and their descriptions
Political	
National OA Policy	<p>Low: No national policy found</p> <p>Medium: Policy exists, but explicitly excludes or does not mention books</p> <p>High: Policy exists, books included or implied (e.g., 'all publications')</p> <p>Note: This refers to policies that already exist. Policies under development are categorised as 'no national policy found'.</p> <p>If the document mentions 'all publications', it was assumed that books were included.</p>
National OA	Low: No advocacy initiatives or statements promoting OA. No or minimal

Indicator	Categories and their descriptions
Advocacy	community building or network development. Medium: Some OA promotion through common strategies, plans, etc. Some network development may be present. High: Broad and strong strategic commitment to national OA policy demonstrated through extensive presence of formalised networks. Visible development and adoption of compatible policies by RFOs and RPOs.
Plan S Funder	Yes/No on the presence of Plan S funder in the country
RFOs OA Policies	For each RFO: No OA Policy (neither journals, nor books) Recommendation/Recommendation*: Recommendation for journals, no policy for books Recommendation* for both journals and books Requirement/Requirement*/Requirement**: Requirement for journals, no policy for books Requirement* for journals, recommendation for books Requirement** for both journals and books
RPOs OA Policies	For each RPO: No OA Policy (neither journals, nor books) Recommendation/Recommendation*: Recommendation for journals, no policy for books Recommendation* for both journals and books Requirement/Requirement*/Requirement**: Requirement for journals, no policy for books Requirement* for journals, recommendation for books Requirement** for both journals and books
Economic	

Indicator	Categories and their descriptions
RFO BPC Funding	<p>Low: No funding streams for OA book processing charges.</p> <p>Medium: Some RFOs provide some funding for book processing charges.</p> <p>High: Major RFOs provide funds to cover OA book processing charges.</p>
RPO OA Book Publishing Support	<p>Low: No institutional programmes supporting OA book publishing.</p> <p>Medium: Some institutional projects, partnerships for OA book publishing, or memberships to international OA book publishing functions.</p> <p>High: Established institutional presses focusing on OA books; robust internal funding schemes for departments to publish OA books; formal partnerships with external OA book publishers.</p>
R&D Funding	% of GDP spent on research and development
Social	
Academic OA Book Publishing Landscape	<p>Low: Very little to no OA book publishing options.</p> <p>Medium: Few publishers with limited OA book publishing.</p> <p>High: Multiple publishers producing a wide range of OA monographs.</p>
Technological	
Maturity of OA Repositories	<p>Low: A few institutional repositories</p> <p>Medium: IRs at some main institutions</p> <p>High: IRs at the majority of institutions</p>
National OA Book Infrastructure	<p>Low: No institutional services in use or centralised national platform for the distribution of OA books.</p> <p>Medium: Some Institutional services in use and/or a national centralised platform in development for the distribution of OA books.</p> <p>High: National platform in use for distribution of OA books.</p>
Legal	



Indicator	Categories and their descriptions
Secondary Publishing Rights	Yes/No on law allowing authors the right to deposit an OA copy of published content
Overall remarks	
Main Challenges for OA book (policy) development	Any evidence summarised relating to challenges found.
Final summary of main observations relevant for OA book publishing in the country	Any observations, notable for an understanding of the OA book policy landscape in the country.

Table 4 - Full country overview data description

Following the initial data collection and categorization, we implemented a three-step process to standardise and simplify the data for comparison and analysis.

Step 1: Quantification of Qualitative Ratings

To enable quantitative analysis, we converted the qualitative ratings for each indicator into numerical values:

- High/Medium/Low ratings were assigned values of 3, 2, and 1 respectively.
- Yes/No binary indicators were assigned 1 for Yes and 0 for No.
- For national policies (Yes*/Yes/No), we used a scale of 2, 1, and 0.
- For RFO and RPO policy requirements, we used a 6-point scale: Requirement** (5), Requirement* (4), Requirement (3), Recommendation* (2), Recommendation (1), No policy (0).

This conversion allowed us to create a standardised numerical dataset across all indicators and countries, which enabled us to simplify the data in the following steps.

Step 2: Thematic Grouping

To reduce complexity and provide a more holistic view of each country's OA landscape, we grouped related indicators into broader themes (see Table 5 below). This step helped in synthesising the multifaceted data into more manageable categories for analysis.

Indicator group	Individual Aspects
-----------------	--------------------

Policy Framework	National OA Policy, National OA Advocacy, Plan S Funder(s) in the country, RFOs OA Policies, RPOs OA Policies
OA Book Funding and Support Mechanisms	RFO BPC Funding, RPO OA Book Publishing Support
Overall Research Investment	R&D Funding
OA Book Publishing Landscape	Academic OA Book Publishing Landscape
Technical Infrastructure	Maturity of OA Repositories, National OA Book Infrastructure
Legal Framework	Secondary Publishing Rights

Table 5 - Thematic grouping of Open Access landscape indicators

Step 3: Simplification and Categorization

To facilitate easier interpretation and comparison, we then converted the numerical scores within each thematic group into simplified categorical ratings based on the thresholds defined in Table 6 below.

Indicator group	Scale
Policy Framework	Low: 1-5 points Moderate: 6-10 points High: 11-16 points
OA Book Funding and Support Mechanisms	Low: 2 points Moderate: 3-4 points High: 5-6 points
Overall Research Investment	Low: <1% Moderate: 1-2.27% High: >2.27% (exceeding the European Area average)
OA Book Publishing Landscape	Low: 1 point Moderate: 2 points High: 3 points

Technical Infrastructure	Low: 2 points Moderate: 3-4 points High: 5-6 points
Legal Framework	Low: 0 points High: 1 point

Table 6 - Thresholds for converting numerical scores to categorical classifications by indicator group

This three-step process allowed us to transform the complex, multidimensional data into a more accessible format, enabling easier feature comparisons. By standardising and categorising the data in this way, we were able to analyse how different aspects of the OA book landscape (such as policy frameworks, funding and support mechanisms, and technical infrastructure) vary across the ERA, without directly comparing individual countries.

III. Findings

3.1 Literature review

As described in the methodology section, we identified 89 items in total as part of our literature review, spanning publication years 2006-2024. As part of the literature review work was the task to place each item into a suitable category to get an overview of the existing research that relates to OA policies, where we ended up with this structure. The resulting categories are presented as Table 7. Here we present the general characteristics of each individual category and highlight some representative pieces of literature to give some tangible insight through practical examples. We provide the full categorised bibliography as an open dataset here (Laakso 2024).

Category	Number of Items
Reflection/research on open access policy formulation	
General	32
Related specifically to OA books	3
Policy effectiveness	10
Open science policy literature (not exclusive/related to OA)	12
OA policy implementation/case studies	
Institutional	14
National level	4
Discussion/cautionary literature	

General	6
Articles discussing the need for implementation of national OA policies	3
General relevant OA literature	5

Table 7 - Literature Review Items by Category

Reflection/research on open access policy formulation

There is a substantial body of literature, namely nearly half of all OA-policy related literature found that deals with the formulation of OA policies. The majority of these items (32) were categorised as 'General', dealing with various aspects of OA policy formulation. Additionally, 10 items focused on policy effectiveness. However, only 3 items specifically addressed OA books.

General (32 items): This sub-category of literature is a varied collection of items that concern research or discussion of OA policy formulation. A key report from the EU-funded PASTEUR4OA project analysed hundreds of OA policies for journal articles and demonstrated that studied policy alignment in relation to different levels of mandate strictness (Swan, Gargouri, Hunt et al., 2015). Another example is Suber & Schieber (2024) where the authors have composed a guide titled "Good practices for university open-access policies" as part of the Harvard Open Access Project. The guide contains recommendations on copyright, waivers, time of deposit, wording to avoid, and wording to use. A third example is "Free for all, or free-for-all? A content analysis of Australian university open access policies" by Wakeling, Kingsley, Jamali et al. (2022), where the authors explore the alignment of OA policies among Australian universities. Of 42 universities, 20 had a formal OA policy on their webpages. The study included an investigation into some OA policy elements and compared them between policies, where they could find that none of the studied OA policies mentioned monitoring of compliance, and only three specified consequences for a failure to comply. Large variation was found across OA policies (e.g. definitions of OA, intent of policies, deposit timing, paying for publication). Only 13/20 OA policies specified a deadline for deposit of publications into a repository.

Related specifically to OA books (3 items): The literature on OA policies for academic books, particularly monographs, reflects the complex landscape of scholarly publishing and the unique challenges faced in transitioning long-form content to OA models. Two key texts in this category, Adema (2019) and Fathallah (2022), provide comprehensive insights into the development, implementation, and implications of OA book policies. Both authors agree that policy intervention is necessary and welcome, but stress the importance of carefully crafted policies that address the unique challenges of OA books. They highlight the need for sustainable funding models, advocating for exploration of alternatives to BPCs, such as consortial funding. Moreover, both texts emphasise the crucial role of robust technical infrastructure for OA book publishing, dissemination, and discoverability.

Policy effectiveness (10 items): This group of literature focuses on the effectiveness and implementation of OA policies in academic and research settings. The studies employ various methodologies, including bibliometric analyses, surveys, interviews, and large-scale data analyses, to examine compliance rates, factors influencing policy effectiveness, and the impact of OA mandates. While there's a global perspective (Huang et al., 2020), there's a notable emphasis on country-level policies (DeSanto, 2023; Herrmannova et al., 2019; Lovett et al., 2017). The literature



covers recent years, primarily the 2010s and early 2020s, and involves multiple stakeholders such as researchers, librarians, funders, and policymakers. Many studies indicate avenues for improving OA policy effectiveness, including simplifying deposit processes, drafting clear policies, establishing effective infrastructure, enhancing communication, and implementing stricter compliance measures. Overall, this collection provides a comprehensive overview of the current state, challenges, and potential improvements in OA policy implementation across various academic contexts.

Open science policy literature (not exclusive/related to OA)

General (12 items): OA is just one part of open science, and OA policies are also often integrated into broader open science policies, making literature on such policies also relevant for this project and understanding the circumstances for OA book policy development in different national contexts. Moradi & Abdi's (2023) research article "Open science-related policies in Europe" is a good example of this through its thematic study of 81 OS policies from research funders and national policymakers in seven European countries (UK, Germany, France, Italy, the Netherlands, Sweden, and Spain). The inspected themes were set under three dimensions of OS: open input (research-related policies for data sharing; research data repositories; researchers' approach to data sharing), open process (open peer review; alternative dissemination platforms; researchers' approach to free access), and open output (use of Altmetrics platform for research assessment; publications with an open access approach; correction and retraction of papers; research-related policies for open access publication; prepublication). The researchers found that the degree to which the countries had policies that covered these three themes varied a lot, and also within the countries there was substantial variation in what themes were included in RFO and policymaker policies, calling out for more alignment and international collaboration to work on these gaps if OS is to be advanced effectively through policy.

OA policy implementation/case studies

Among the literature, we could identify a strand that has been focusing on documenting OA policy development or implementation efforts, sometimes framed as case studies. Most of these have been on the national level (14 items) while there are also some that have followed up OA policy implementations on the national level.

Institutional (14 items): Examples of some early OA policy case studies on the institutional level are Cochrane & Callan (2007) who followed up the impact of a self-archiving mandate at Queensland University of Technology, Brisbane, Australia, and Armbruster (2011) and Emmett & Peterson (2010) who detailed the process behind the University of Kansas OA policy. This type of literature has been valuable for sharing experiences and knowledge about tensions in institutional politics that relate to OA policy implementation, experimenting with different ways to promote adoption, and providing tangible evidence for what the impact of different types of policies have had in different environments.

National level (4 items): While there is a wealth of literature that presents OA development and uptake metrics on the country level, the 4 items that are included here contain a connection between such metrics and the national OA policy context. In their research article "Strategies for Success: Open Access Policies at North American Educational Institutions" Fruin & Sutton (2016) conducted a survey covering 51 institutions where OA policy contents were explored together with promotion mechanisms, as well as faculty concerns and related mitigation measures. Other



national level studies include Turcan & Cujba (2018) for Moldova, Wenaas & Gulbrandsen (2022) for Norway, and Hadad, Aharony & Raban (2023) for Israel.

Discussion/cautionary literature

We could find a group of literature that had the common characteristic of only discussing OA policies, with some being very cautionary about their development and implementation. A few articles focused on discussing the need for policies on the national level, making such a sub group distinct.

General (6 items): An editorial by Agustini & Berk (2019) titled “The open access mandate: Be careful what you wish for” is a good example of cautionary writings concerning OA policies. In this instance the authors express scepticism towards Plan S and how the different restrictions imposed through such funding instruments might have a detrimental effect on the scholarly publishing system. Makula (2024) on the other hand conducted a study on the relationship between institutional OA policies and the review, promotion, and tenure guidelines at higher education institutions, findings that rarely is OA part of the latter guidelines and there is room for significant improvement in this regard.

Articles discussing the need for implementation of national OA policies (3 items): We could discern a couple of items that focus specifically on arguing for the implementation of national OA policies, namely Nor & Hashim (2010) for Malaysia, Sánchez-Tarragó, Fernández-Molina & Caballero Rivero (2012) for Cuban health research.

General relevant OA literature

General (5 items): Robinson-Garcia, Costas & Van Leeuwen (2020) provide a global study on OA uptake by universities worldwide, providing some useful insight into how the patterns of OA availability might be connected to national and institutional OA policies. Olsbo (2013) explored the connection between institutional university ranking placements and OA activities in the institutions and their countries, findings that OA can be an explaining factor for the rise of some countries in the university rankings. Bryan & Ozcan (2021) studied the changes in patents referencing NIH-funded research before and after the introduction of the NIH OA mandate in 2008, finding that such citations increased 12% to 27% after the mandate, suggesting wider use of OA resources than just the academic sector. In their research article “The influence of journal publisher characteristics on open access policy trends” Gadd, Fry & Creaser (2018) studied how a set of 100 journal publishers OA policies over the years of 2004-2016, finding that large commercial publishers often have more detailed instructions and restrictions for their OA options, and smaller publishers commonly have more straightforward ones. University presses had not appeared to be engaged with the OA agenda in any substantial way. The national OA environments were suggested to be an explaining factor for some of the substantial differences between publishers.

Literature review summary

Unexpectedly, there was very limited literature available on OA policies on an in-depth and comprehensive level, with almost nothing with focus on OA books. However, scanning the available literature on OA policies did provide us with useful input into the design of our own policy-mapping process. In the future, organisations implementing or updating OA book policies could consider providing public follow-ups on the impact and effectiveness of these changes. This practice would



facilitate the sharing of experiences in this domain, enabling stakeholders to make more informed decisions going forward.

3.2 ERA-wide stakeholder survey

The PALOMERA project survey analysed various aspects of open access books. 420 complete responses were received from ERA countries for analysis. The final version of the questionnaire was divided into six sections (see Dreyer et al., 2024b). It included six sections, which are fully described above. In brief, there are:

- (1) General information about the respondents
- (2) Awareness of open access policy measures
- (3) Stakeholders and players
- (4) Attitudes towards the design of OA policies for books
- (5) Attitudes and policy measures for open access books
- (6) Policy measures

This section highlights the findings of the report (Dreyer et al., 2024b). In addition, the dataset has also been made openly available (Dreyer, Tummes, & Stone, 2024).

As anticipated, most stakeholders reported good knowledge of their areas of expertise. Declarations and policies were found to be particularly well-known in countries where they had been issued. Notably, in centrally organised countries, respondents demonstrated greater awareness of the existence and dissemination of their policies compared to countries with federal systems. In the latter, national-level initiatives appeared to have less of an impact due to the sovereignty of federal states over education issues.

While the survey's expected results provide valuable insights, they are less instructive regarding improving the publishing conditions for open access books. To guide the future development of the open access books ecosystem, it is crucial to identify and address the gaps and challenges in the current publication system. The following subsections highlight key areas of action that emerge from the overall findings of the analysis.

Knowledge through communication

A key finding from the survey is the need for a comprehensive communication strategy to raise awareness. This issue emerged across various aspects of the survey. Notably, stakeholders tend to view the situation in their own area of interest more positively, suggesting that a broader understanding of the numerous products, services, funding opportunities, platforms and technical infrastructures could lead to a more positive assessment of the status of the transformation of the book market.

The survey results indicate that existing support programmes at the European and national levels could benefit from better integration and coordination. Even experts struggle to maintain a comprehensive overview of the many initiatives for OA books, many of which have emerged from individual project funding programmes. Aggregating, coordinating, and standardising the

presentation and strategic communication of European and national services supporting open access books could potentially address the differences in assessment revealed by the survey. This approach could increase general knowledge about existing policies and support services. Furthermore, such efforts could enhance awareness of the importance of open access books.

Participation through clear governance and dialogue at grassroots level

Another crucial theme that emerged across the survey respondents was stakeholders involvement, manifesting in two key aspects. Firstly, there is a need to stimulate interest among relevant stakeholders to participate in the processes. A comparison between countries with high (France) and relatively low (Germany) interest in participation suggests that centrally organised and politically transparent processes measurably increase the interest in open access policy. Moreover, analysis of the data in the full report (see Dreyer et al., 2024b) shows a connection between awareness of participation opportunities and interest in engagement. To increase stakeholder involvement in policy processes, two elements are essential: clearly structured management and effective communication strategies that articulate participation opportunities.

At the same time, it is critical to develop strategies for engaging stakeholders with diverse opinions and interests. The survey highlighted a wide spectrum of perspectives, particularly when comparing publishers with other stakeholders. With few exceptions, there is a widespread desire for more comprehensive involvement of all actors in policy processes. Notably, almost all surveyed stakeholders demonstrated limited awareness of existing opportunities for participation. During policy development broad stakeholder involvement at both national and European levels should be presupposed, by using comprehensive outreach strategies and effective methods of collaborative policy-making.

Our data yields a vital insight for developing effective engagement strategies: the importance of the different levels. While policy making is often perceived as a process at the EU or national levels, our analysis reveals that the institutional level also plays a considerable role. Specifically, we found that awareness of participation opportunities and interest in engaging with political processes are substantially higher at the institutional level compared to the national level. This finding indicates that individuals interested in shaping policy have a stronger preference for engagement at their university rather than at federal or national levels. Given these insights, a promising approach for policy-making could involve strong institutional engagement through innovative participation mechanisms, coupled with a conceptually well designed integration of institutional and state-level processes. This approach would involve academics from the outset. In such a bottom-up model, RPOs would serve as intermediaries between the level of the researchers and the European or national level.

But at the same time the data also show a correlation between national goals and the commitment to policies on institutional level. In countries with established national participation structures and high levels of awareness and interest in participation in national processes, we observe a corresponding increase in the knowledge and interest at the institutional policy-making level. Respondents who express a desire to participate at the national level demonstrate greater motivation for involvement in political processes within their individual institutions and vice versa. Therefore, while strengthening the role of institutions in policy-making processes is important, it is equally vital to shape and harmonise European and national frameworks with grassroots activities.

Attitudes towards policy measures

While there was broad agreement across countries and stakeholder groups in the policy measures section of the survey, a number of areas could warrant further investigation.

Respondents considered open peer review measures as slightly less important, a finding that aligns with the DIAMAS survey results (Armengou, Aschehoug, Ball et al 2023). However, at stakeholder level, funders view open peer review as important, contrasting with the general survey results. The high importance attributed to all quality criteria by respondents underscores the necessity for open access book publishers to present relevant information. Given this, we recommend further investigation into the potential of open peer review.

An interesting result was that respondents ranked openly available metadata as “more important” than a freely available digital version of the book released simultaneously with the print version. Considering the importance stakeholders place on open metadata, we recommended that funders emphasise this aspect in future policy. Additionally, publishers, libraries, and infrastructure providers should work towards making openly available metadata a standard practice.

Moreover, the response to CC BY licences warrants closer examination. Only 75% of respondents rated these licences as “very important” or “important,” a figure that may be influenced by the specific wording of the survey statement. Had the question referred to CC licences more broadly, it might have elicited a higher percentage of positive responses. This suggests a need for further investigation.

Use of persistent identifiers (PIDs) was considered important, with particular endorsement from libraries and publishers in the stakeholder sample. As PIDs gain wider adoption, we recommend their incorporation into future policies and encourage their continued use across the industry. Such an approach would align with stakeholder preferences and enhance the discoverability and longevity of scholarly works.

Respondents viewed the transparent calculation of book processing charges were considered a critical aspect in the analysis, prompting a strong recommendation for publishers to adopt this practice. While separate budget lines for open access and non-open access books were deemed less important by the overall sample, this approach may gain significance if funders begin requiring evidence of payment as a funding condition. Therefore, we recommend implementing separate budget lines as a proactive measure. Additionally, it is recommended that stakeholders actively support and encourage alternative publication formats and forms.

Regarding technical infrastructure, respondents were overwhelmingly in favour of publicly funded technical infrastructures rather than commercial solutions. Therefore it is recommended that measures are taken by all stakeholders to ensure that this technical infrastructure is funded and developed to support future policy.

Summary

The aim of the ERA stakeholder survey was to provide insights into participant knowledge, policy awareness, and attitudes towards policy design and specific policy measures for open access books. Our approach utilised a web survey that generated 420 complete responses from diverse stakeholder groups across the ERA.

The survey highlighted two key areas for action: improving knowledge through communication and enhancing participation through clear governance and dialogue at the grassroots level. In particular, our findings suggest a need for a comprehensive communication strategy to raise awareness about OA book support services and opportunities for engagement in OA policy



processes.

3.3 Bibliometric assessment

Assessment of OpenAlex book metadata for monitoring OA book publishing

In this chapter, the assessment of OpenAlex as a metadata source for quantitatively describing the state of OA book publishing in countries of the ERA is illustrated in four figures.

The first figure (10) shows the countries which book authors' affiliated institutions are located in, i.e. it is an aggregated and affiliation-based country comparison for book publications. Among 413,047 book records initially collected from OpenAlex, 6.6% include country information indicating that the respective books come from authors affiliated with institutions in the ERA. While another 6.5% contained affiliation country information for non-ERA countries, 87% remained without any such information. It is thus currently not possible to achieve a thorough analysis of how many books originated from authors with affiliations to institutions throughout the ERA.

Figure 11 shows books published per year and country concerning the publisher organisations indexed in OpenAlex. In the initial dataset, the amount of records containing country information of books' publishers (25.9% representing ERA publishers) is higher than on the institutional (affiliation) level described above. Country information for non-ERA publishers are represented in 5% of the 413,047 book records. 69.1% of all records, however, remain without country information for the books' publishers. As in the case of the analysis visualised in Figure 11, the low percentage of book records associated with country information of publishers does not allow for a reliable description of the book publishing landscape regarding (commercial) book publishing in ERA countries.

Tracing individual book publications 'on their way' from publication through and into different datasets of large metadata aggregators such as OpenAlex or Crossref, it becomes clear that a great share of works, and their connections to e.g. publishers, appears to get lost for common bibliometric analysis as respective metadata makes its way through different stages of processing and aggregation. A suitable example when engaging with 'publishers' included in OpenAlex is a book published by 'Bielefeld University Press'. While available metadata records of the book contain correct publisher information both in the German national library¹⁰ as well as in Crossref¹¹, OpenAlex lists 'Bielefeld University Press' as a 'source'¹² as opposed to 'publisher' of the book, and the publication is thus lost for analysis in the appropriate categories of this chapter (figures 11 and 12). The example shows how metadata can lose its potential value for bibliometric analyses in the process of aggregation.

Figure 12 shows the number of book publications per year and parent publisher in the ERA. The figure is based on 26% of book records holding country information for ERA parent publishers, while 4.9% represent non-ERA parent publishers, and 69.2% do not hold any respective country information. Through lineage information from OpenAlex, book records from multiple publishers can be grouped and associated with one single parent publisher. However, at this point, the

¹⁰ <https://portal.dnb.de/opac.htm?method=simpleSearch&cqlMode=true&query=idn%3D1321021844>

¹¹ <https://api.crossref.org/works/10.2307/j.ctv2f9xs9f>

¹² <https://api.openalex.org/works/W4211087777>



aggregation does not appear to yield important insights, especially regarding similar unreliability due to lacking country information coverage in the dataset.

The last figure deals with the 'sources' entity of OpenAlex, a metadata field containing many repositories as well as publishers (such as university presses) as 'places' of origin of books (Figure 13). In the initial dataset of 413,047 book records, 4.4% hold country information regarding the ERA. The remaining book records contain 0.53% non-ERA 'sources' country information, and 95.1% not containing any country information. It becomes apparent from Figure 13 that the 'sources' entity of OpenAlex contains a very heterogeneous range of publications, with lecture notes representing a large share of displayed works. Similar to the three paragraphs above, an analysis of books in the ERA on the basis of country information of 'sources' in OpenAlex is too unreliable due to low respective metadata coverage.

It is extremely difficult to draw a precise conclusion on the current state of OA publishing in ERA countries only through the lens of this bibliometric analysis. Looking at the authors' institutions, the three countries with the largest share of publications are France, Germany and the United Kingdom. In these three major realities, Germany is where it is possible to observe the largest share of open access books among the three countries (Figure 10). If looking at countries with less displayed books, a tendency towards OA is apparent. However, this trend could be the result of a possibly greater reach and availability of metadata on open access books, as opposed to closed access books.

The tendency towards publishing OA books is also reflected from the observation conducted on the publishing houses (Figure 11 and 12). Springer Nature - the major publishing player based in Germany - tends to have a greater share of OA books, if compared to other publishers from the United Kingdom, such as Oxford University Press or Informa.

It is possible to distinguish between a group of publications, and authors, strongly linked with the German-based publishing companies, and one related to the UK-based ones. In the first group, there is a wider tendency toward OA. This is true except for 2023, where the possible presence of embargos on the most recent monographs can still shift the trend.

Part of this trend can be explained by the possible - but not controlled - use of European funds to publish monographs. In this case, the use of public funds could sustain more open than restricted access publications. Another possible explanation could be a difference in the positioning of private publishers toward OA models.



Figure 10 - Number of book publications per year and country according to the location of authors' affiliated institutions, as indexed by OpenAlex. Sample size: 27243 book records. Data obtained from OpenAlex on 26 June 2024.

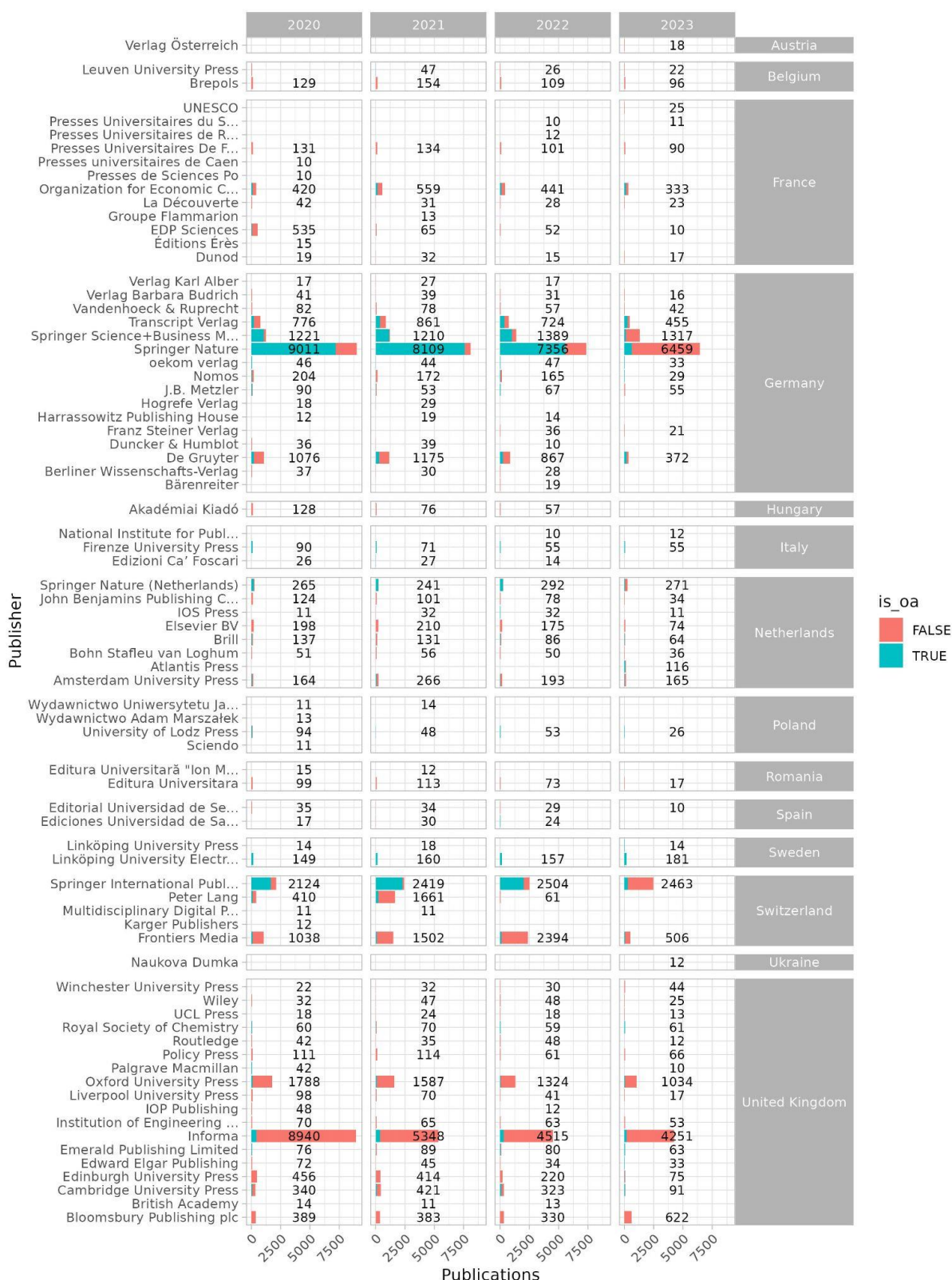


Figure 11 - Number of book publications per OpenAlex 'publisher' and year in countries of the European research area, as indexed by OpenAlex. Only publishers with at least 10 publications in one year displayed. Sample size: 106837 book records. Data obtained from OpenAlex on 26 June 2024.



Figure 12 - Number of book publications per OpenAlex 'parent publisher' and year in countries of the European research area, as indexed by OpenAlex. 'Parent publishers' include publications from



subsidiaries/imprints. Only publishers with at least 10 publications in one year displayed. Sample size: 107275 book records. Data obtained from OpenAlex on 26 June 2024.

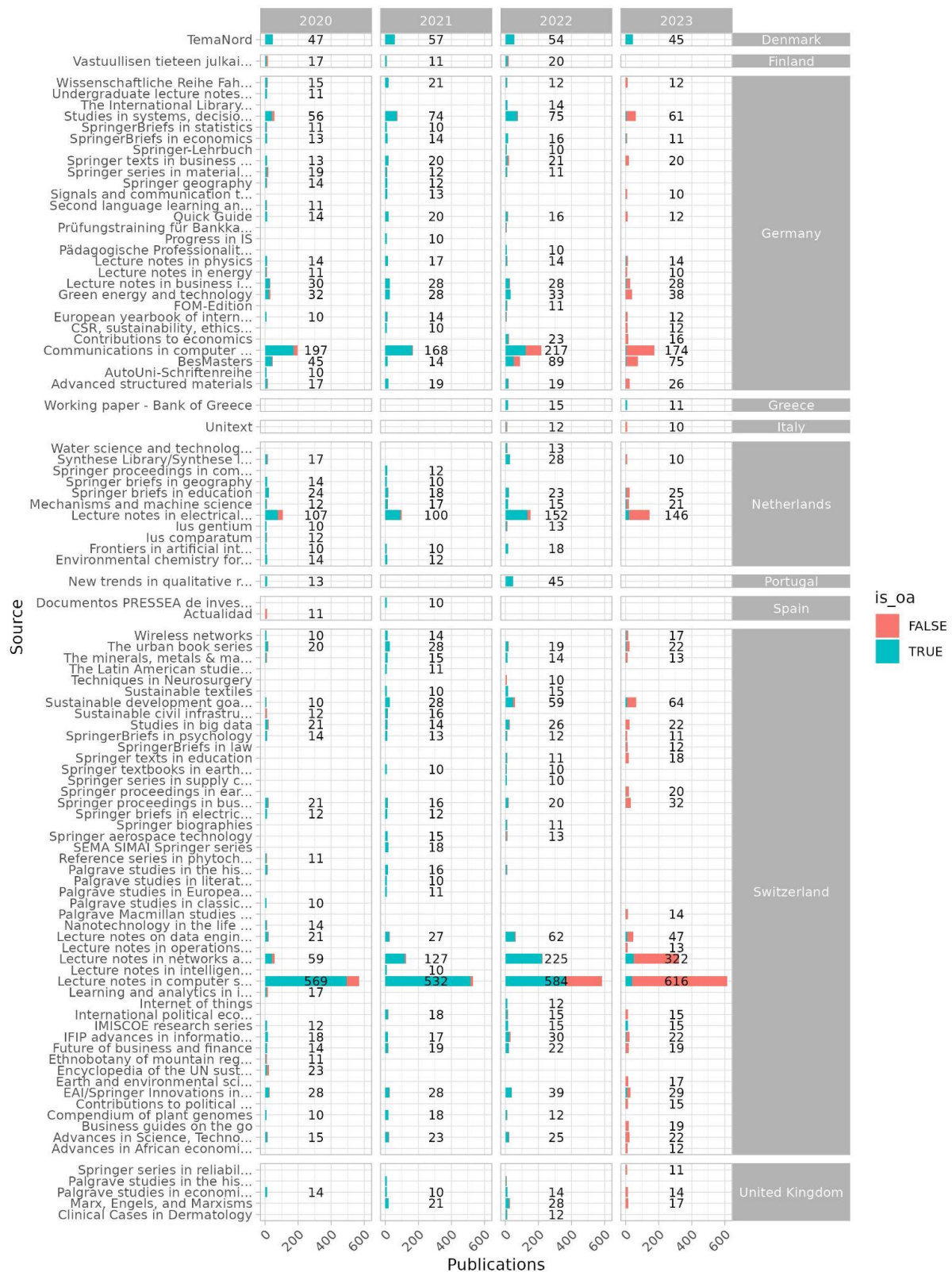


Figure 13 - Number of book publications per OpenAlex 'source' and year in countries of the European research area. Only 'sources' with at least 10 publications in one year displayed. Sample size: 18082 book records. Data obtained from OpenAlex on 26 June 2024.

Remarks

OpenAlex is a valuable data source for the analysis of OA books. The retrieval of over 400,000 books in the four-year time frame indicates a significant coverage of publications. However, in order to analyse the development of the OA transformation around books within the demarcations of the PALOMERA project, books published in- and outside of the European research area have to be distinguished. It becomes clear from the country-based analysis of books in OpenAlex that respectively needed metadata quality is currently lacking. From a perspective of policy-making, a desirable development for improving the monitorability of books would be the assignment of DOIs as well as the increased representation of affiliated institutions in metadata on books. Especially for policy-makers and research funders, the possibilities for evaluating implementation and impact of policies would be dramatically increased. A final and important aspect for the future, which would enhance the reliability of any monitoring effort around books, is the ability of national libraries to provide statistics on how many academic books are published annually in a respective country.

National libraries survey

Given the fact that OpenAlex does not provide comprehensive information on the number of OA books in ERA, we turned to national libraries, expecting them to provide complete information on all books published in their respective countries, including academic OA titles. However, the findings reveal a fragmented and incomplete landscape.

The survey responses and the shortcomings of the data provided by the national libraries can be summarised into four topics. These topics include (1) the underlying concept of academic (or scholarly/scientific) books and the existence and use of a corresponding metadata field, (2) the type and quality of the data sources consulted, (3) the question of the OA status and open licences as well as (4) the legal deposit. As a result, we derived a range of recommendations for OA book policy measures.

1) Definition of academic books

The answers we received to the question on the definition of academic literature¹³ can be categorised into three groups that correspond to phases in the process of scholarly communication: from writing to text to reading.

The first group includes answers in which academic literature is identified by characteristics of the written research output (peer review, the publisher preparing the book for publication, the affiliation of the producer or author). The second group includes attempts to identify academic

¹³ The question from the survey: How do you define "academic book"?

literature by the characteristics of the textual product (content-related indexing criteria). The third group includes characteristics of the recipients (scholarly audience).

In order to standardise the very different ways of determining the quantity of academic books in the holdings of national libraries, it would be useful to discuss common criteria for “scholarly” that can be translated into metadata fields.

2) Data sources

Very few national libraries collect and curate OA books data in the national bibliographies. Many of the libraries used external sources to provide us with information on OA books in their countries. The data sources used to answer our questions vary in terms of their origins (Figure 14).

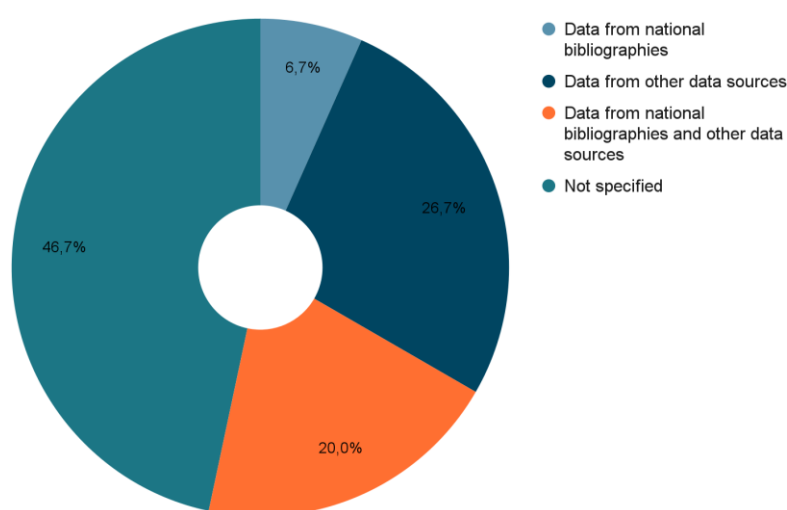


Figure 14 - Data sources

The numerous national bibliographies have evolved over time corresponding to the mandates of the various national libraries. Each bibliography has a different scope. The other data sources used additionally or exclusively to answer our questions do not include all titles published in a particular country, but also those published in other places. In view of this heterogeneity, it would also be advisable to discuss which requirements would have to be met for the introduction of a European wide legal deposit for digital books.

3) Licensing

We developed workarounds such as the filtering ("free to read") or the use of external services to determine the possibility of access in the absence of data on open access were identified. Due to their heterogeneity, the data supplied can only be used to a very limited extent to determine the status quo of OA books in the ERA. In order to obtain the desired information, the management of this OA metadata such as the licence information, would have to be handled uniformly.

4) Legal deposit

The insufficient design of the legal deposit is understandably mentioned as the reason why the data situation remains incomplete. Additionally, the political level, where the legal deposit is structured, differs according to the legal systems of the countries surveyed. At the same time numerous countries have plans to create digital deposits. Harmonisation would therefore be possible through the involvement of a transnational institution or the voluntary standardisation of national practices for recording publication data and licensing information. A forum that could drive this work forward would first have to be nominated.

Our survey provides only a first impression of the potential challenges in developing a coherent European database on OA books. The next step would be to harmonise the existing data and integrate it into a uniform European information platform on digital books. This effort could serve as a building block for a bibliography of the European Union. In any case, it would provide a solid data foundation for the further development of policies for OA books at European level.

Summary

The aim of the bibliometric analysis was to assess to what degree two methods of data collection garner in terms of information on published OA books in the ERA. Our approach combined an analysis of OpenAlex metadata, the broadest bibliometric database based on open data, and a survey of national libraries, providing both quantitative insights and qualitative perspectives on the challenges and opportunities in this field.

Our analysis of OpenAlex data revealed significant limitations in the current metadata coverage for OA books, particularly regarding country-specific information for authors' affiliations, publishers, and sources. This lack of comprehensive data hampers reliable quantitative assessments of OA book publishing across the ERA.

The survey of national libraries highlighted four key areas: the definition of academic books, data sources, licensing information, and legal deposit systems. We found considerable variability in how these aspects are approached across different countries, underscoring the need for standardisation and harmonisation.

A key insight from this analysis is the urgent need for improved metadata coverage and standardised practices across the ERA to enable comprehensive tracking and assessment of OA book publishing.

3.4 Policy analysis

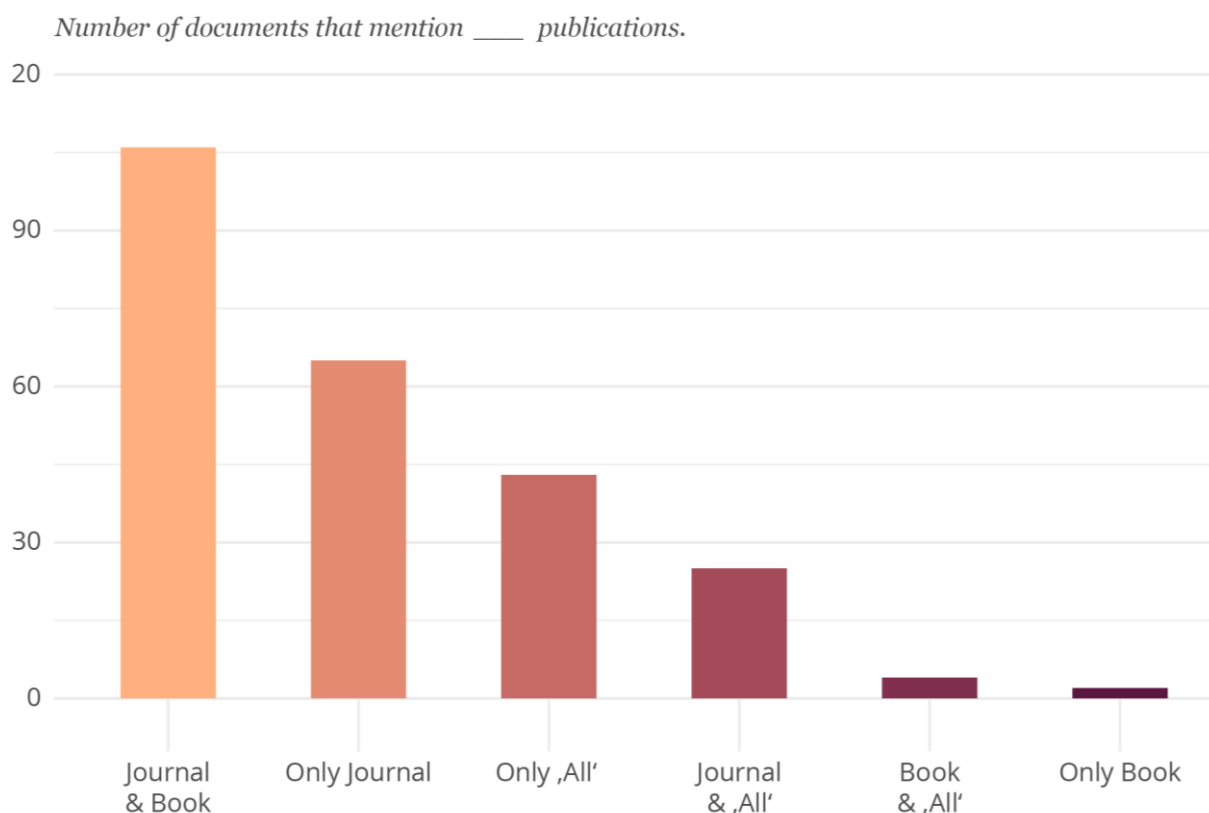
The analysis of the OA policies for this project contains both quantitative elements (descriptive) to describe the general profile of the policy population as well as in-depth qualitative elements where the more specific expressions and wording are inspected on the individual policy level.

While most OA policy documents cover journals, only a subset explicitly include books within their scope, suggesting an uneven policy landscape that could hinder the adoption and impact of OA book publishing. This situation may create challenges for authors, institutions, and publishers, such as a lack of policy guidance, funding, and incentives for OA books.

It is worth noting that in our analysis, we came across several policies that broadly referred to OA for "all publications" without specifying the types of research outputs covered. This lack of specificity may lead to ambiguity, potentially hindering effective implementation and achievement



of policies' intended goals. Clearly defining the scope of research outputs is crucial for providing the necessary guidance to authors. Figure 15 provides a visualisation of the distribution of different publication types mentioned in the different policies.



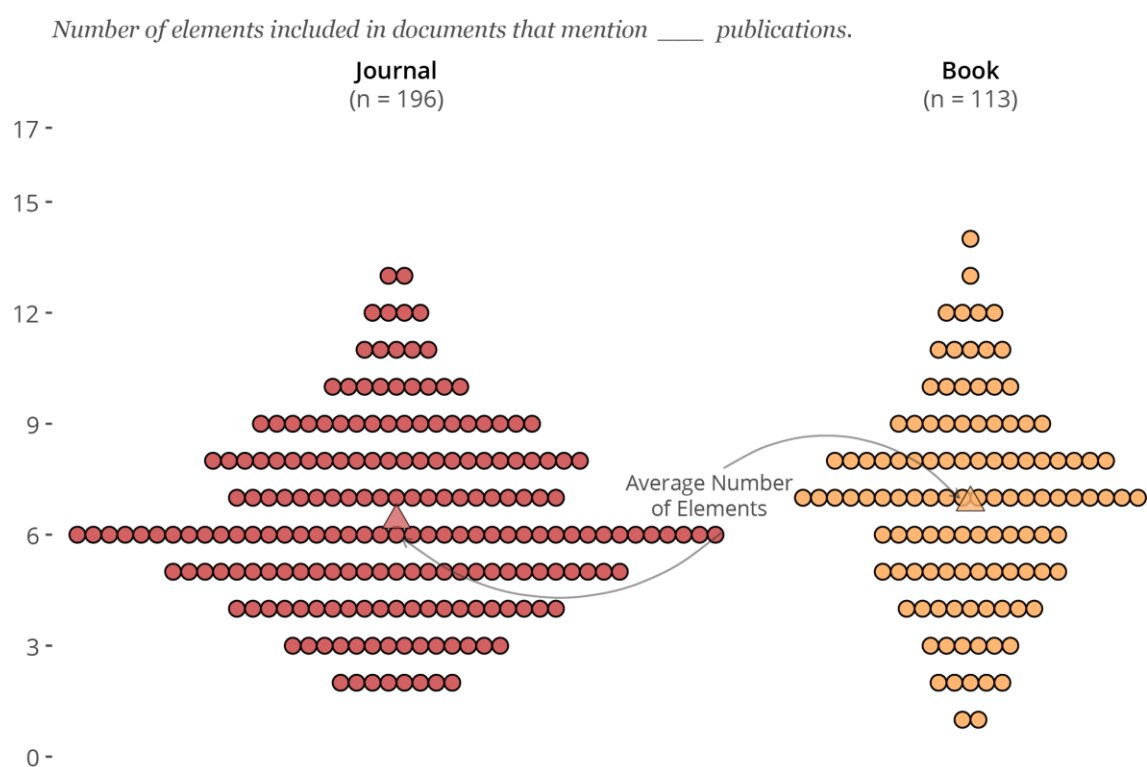
Note: The documents included in this analysis were published between 2010 and 2023 (n = 246).

Figure 15 - How publication types were addressed in the OA policies

Policy element mapping

Although OA policies more commonly included explicit mentions of journal publications, when policy documents explicitly mentioned book publications, a similar number of policy elements were specified on average. A visual comparison of the policies and the number of elements they contain is provided in Figure 16. However, it is worth noting that the mean number of elements discussed in the documents was only 6 out of the 17 considered in the analysis, indicating that there is still room for strengthening OA book policies on a range of levels.

Despite this limitation, the similarity in number of elements addressed for journals and books is a positive sign as it suggests that OA book policies are being developed with comparable thoughtfulness and comprehensiveness, rather than being treated as an afterthought or a less important aspect of open access. This approach can facilitate policy alignment, address the unique challenges of book publishing, and support diverse research outputs.

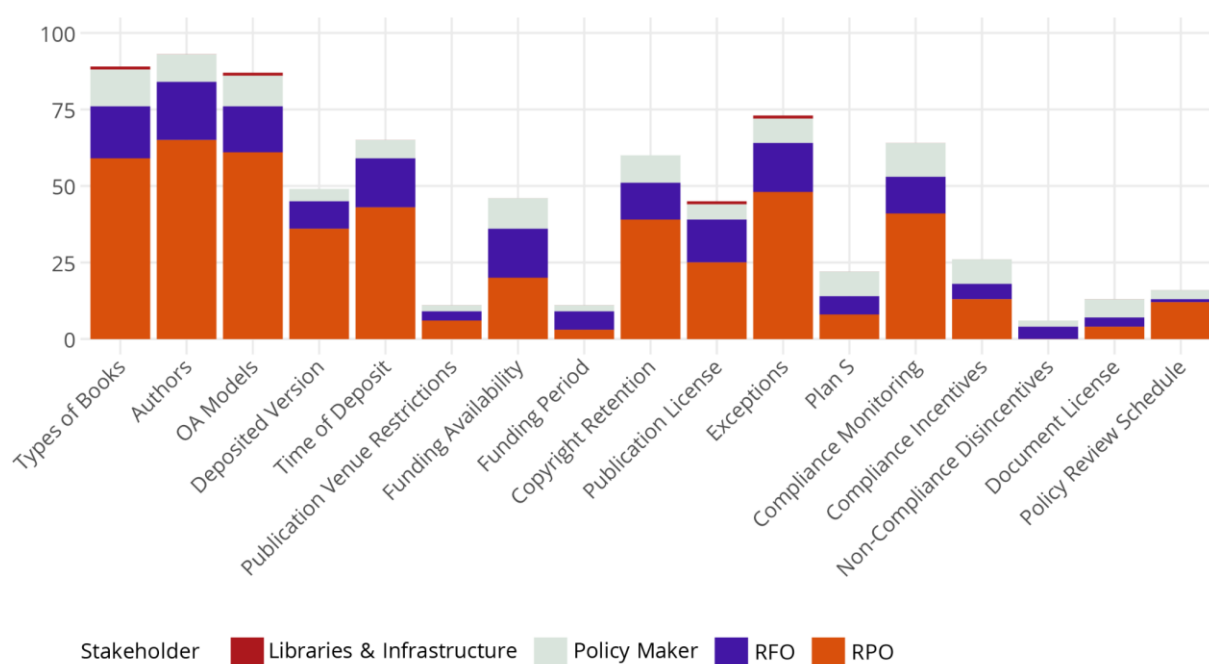


Note: The documents included in this analysis were published between 2010 and 2023 (n = 246).

Figure 16 - Comparison of the number of policy elements present in policies mentioning journal articles versus policies mentioning books

Building upon the previous analysis, the specific policy elements included in documents mentioning OA books explicitly were further analysed. Figure 17 shows a bar chart that visualises how often each policy element was included in those documents by stakeholder. The chart reveals that several elements were consistently mentioned in around 50% of the policy documents, including the types of books, authors, OA models, exceptions, time of deposit, compliance monitoring, and copyright retention. In this figure, and others where stakeholder proportions are measured, it is important to keep in mind that the sample of policies was in no way constructed to

be even and balanced, but in fact heavily skewed towards RPOs and also specific countries.
Number of documents that mention ____ by stakeholder.



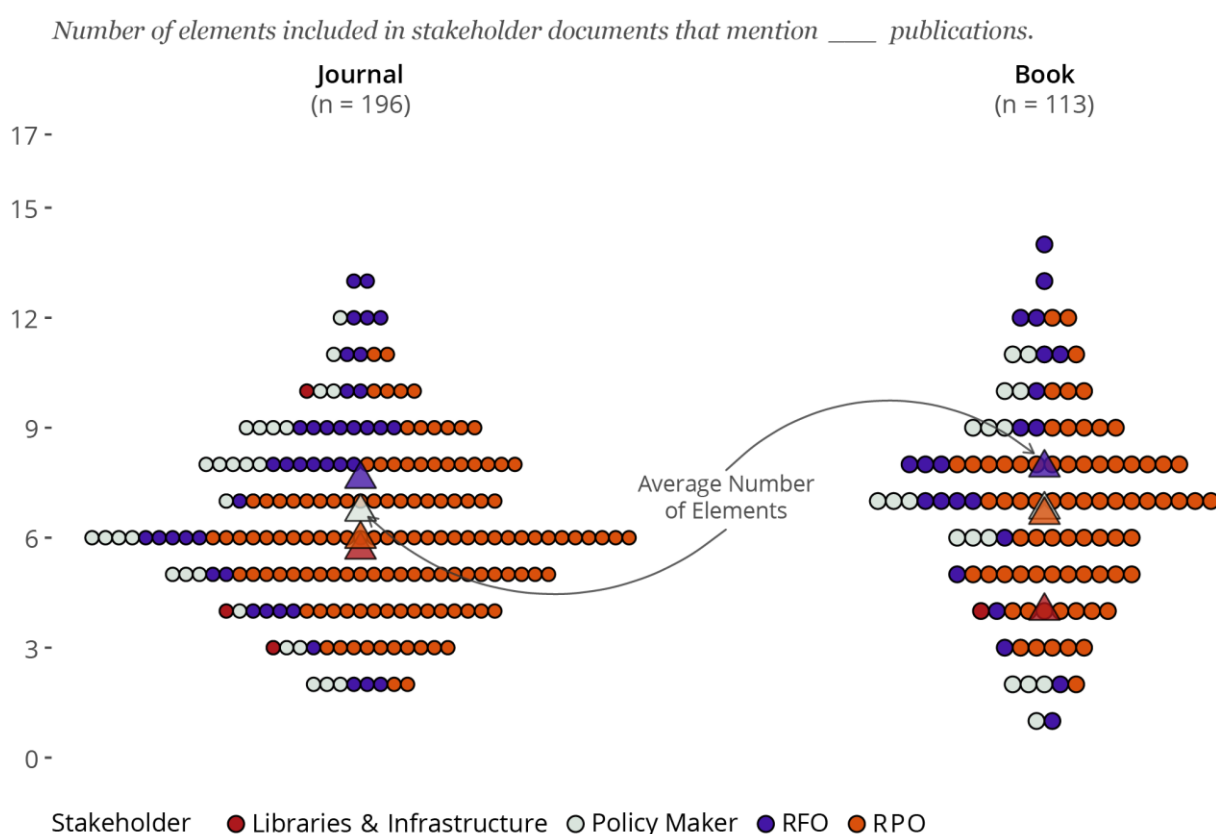
Note: This analysis is based on documents that explicitly include OA book publications (n = 113).

Figure 17 - OA policy element presence across all OA policies that explicitly include OA book publications, columns shaded by issuing stakeholder category

Defining the types of books and authors covered by a policy indicates a clear definition of their scope and applicability, whereas specifying the OA models and exceptions provides guidance on the acceptable open access routes and potential exemptions that may give authors greater flexibility. In addition, specifying the time when authors need to deposit their work in OA repositories ensures timely access to OA books, while discussing compliance monitoring demonstrates a commitment to enforcing and sustaining OA practices. Notably, the frequent inclusion of copyright retention complements other common aspects, such as OA models and time of deposit, by encouraging authors to retain their copyright during the publishing process and ensuring they have the necessary rights to make their books openly available. Together, these key elements can create a supportive framework for open access.

Interestingly, the bar chart also highlights some policy elements that were less frequently mentioned, such as funding availability and funding period. This may suggest opportunities for further development and harmonisation of OA book policies to address these aspects more comprehensively.

The final figure for giving insight into the distribution of OA policies and their elements is provided in Figure 18, where the same premise is present in Figure 16 although there is a distinction between stakeholders. It would seem that RFOs are on average the most specific, i.e. having policies containing the most unique elements, while libraries & infrastructure providers have the least elements present in their policies.



Note: The documents included in this analysis were published between 2010 and 2023 (n = 246).

Figure 18 - Comparison of the number of policy elements present in policies mentioning journal articles versus policies mentioning books

Policy element content analysis

This part of the analysis focused on examining the policies in closer detail, looking at what is included in each policy and how the information is expressed. For this in-depth content analysis, we focused solely on policies that explicitly mention books (n = 113). While we acknowledge that policies referring to 'all publications' (n = 68) may be intended to encompass books, we chose to exclude these to ensure we were analysing policies with clear, unambiguous references to books. This decision allows us to conduct a more focused examination of how books are specifically addressed in OA policies.

This approach differs from other parts of our project where we take a broader view, including policies that imply coverage of books through terms like 'all publications'. The current analysis is designed to extract and examine specific policy elements related to books, allowing for a detailed understanding of how these elements are expressed and vary across different stakeholders.

Work has been organised into seven policy element categories, each containing one or more specific policy element (visualised in Figure 19):

- Policy Scope
- OA Models
- Rights and Licensing
- Practical Implementation
- Funding
- Compliance and Enforcement
- Policy Management and Alignment



Figure 19 - Policy element categories

Policy elements were presented and defined above in the methodology section in Table 2. For each policy element present in the collected policies we have extracted the specific text that belongs to the policy element, translated it to English if needed, and then analysed all texts belonging to a policy element. Most often, it has been meaningful to include some distinction between stakeholder types in the analysis, as well as variability in element expression, also allowing for flexibility in structure and formulation of the analysis depending on the characteristics of the specific policy elements.

This work around the policy elements is an important cornerstone for supporting the formulation of actionable recommendations for the project and future alignment of policy-related work in the space for OA books. By examining the policy elements expressed within the collected policies, we can identify best practices and potential pitfalls, which can then be used to develop more effective and comprehensive policies that address the unique challenges and opportunities associated with OA books.

In the following subsections, we present the results of our analysis concerning the individual policy elements, varying in length and depth depending on the complexity and need for elaborating

different perspectives. At the end of each analysis we reflect on if and how the policy element is present and formulated in the current EU Grants agreement, a policy which is not part of the main body of collected and analysed policies for the project.

Policy Scope

The policy scope category contains two policy elements: **Types of Books**, and **Authors**.

Scope: Types of Books

This policy element describes the scope of book-related content covered by the policy, including book chapters, monographs, edited volumes, and other types of scholarly publications.

This policy element refers to the definition of what counts as a book, or part of a book, within a policy document, i.e. what types of works fall within the scope of the policy. This is a very important part of the policy that has to deal with the ambiguity of definitions and lack of standards (e.g. for peer-review) there are in the book space at the moment.

Of the 113 collected policy documents that mentioned books explicitly, 87 (77%) contained text specifying some book-related publications that fall within the scope of the policy. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 58 of 73 (79.5%);
- RFOs: 17 of 22 (77.3%);
- Policy makers: 11 of 17 (64.7%);
- Library and infrastructure provider: 1 of 1 (100%)

The majority of the policies containing this element included the term 'monograph'. Compared to the other stakeholders, the excerpts from RFOs policies demonstrate more precise distinction with regard to the scope types of books and their definition, paying attention to peer-review and editing processes, publishers indexing, identifiers, etc. Some of the RFO policies exclude trade books, textbooks, conference proceedings, general reference works, works of fiction, collections edited, but not authored. Documents by national and regional policymakers and RPOs are more generalised involving all types of publications and not making distinctions between them.

Based on the analysis, the time of publication did not influence the formulations of this policy element, meaning that both older and more recent documents demonstrated the same general formulations across stakeholder groups.

Some policies use the term 'monograph' interchangeably with 'book', which may lead to confusion unless the intended scope of the policy and the terminology used in the document is clearly defined. The annotated EU funding grant agreement directed at EU funding programmes 2021-2027 contains this policy element and formulates it in the following way:

"Beneficiaries must ensure open access to peer-reviewed scientific publications relating to their results. This includes articles and long-text formats, such as monographs and other types of books. Immediate open access is required i.e. at the same time as the first publication, through a trusted repository using specific open licences" and "Long-text formats — such as books/monographs and edited volumes — are considered to be peer-reviewed if the manuscript (or a substantial part thereof) has been reviewed at least by one independent expert external to the publisher or to the series scientific editor(s). PhD theses and habitations for professorial degrees are considered peer-reviewed, if they are formally published through a publisher. Book chapters are NOT considered long-text formats but are treated similarly to articles." (EC, 2024 p. 371-372)

On the other hand, the UKRI OA book policy includes a helpful set of definitions at the start distinguishing between monographs, book chapters, edited collections, trade books, as well as outlining clearly what type of works are considered out-of-scope. For the monograph publication types, the policy provides the following definition:

Example 1: "Defined as a long-form publication which communicates an original contribution to academic scholarship on one topic or theme and is designed for a primarily academic audience; an academic monograph may be written by one or more authors." (UKRI 2023)

Example 2: "The spectrum of scholarly books also includes monographs, i.e. research papers on a single topic by one or more authors, as well as scholarly publications referred to as trade books; these are aimed at both a specialist community and a broader, interested public. In addition, there are genres of scientific literature, such as guides and reference works, which are aimed at specific professions and cannot be classified as research literature. Textbooks that are scientific in content but do not serve the purpose of communicating new research results also constitute a separate category." (German Science and Humanities Council 2022)

Scope: Authors

Who the policy applies to, defining who is subject to its requirements regarding open access publication. Example: institution-wide, or department- or discipline-specific.

A crucial aspect of any policy is clearly defining its scope, not only in terms of publication type, but also regarding the individuals to whom the policy applies. For RPOs, this may involve employment-based criteria, while RFOs typically focus on grantees. We will provide some examples below. The OA policy may also specify OA requirements based on author roles, such as being the first author of a book, editor of an edited volume, author of a book chapter. These practices are still evolving.

Of the 113 collected policy documents that mentioned books explicitly, 93 (82.3%) included specific text detailing author-related criteria within the policy's scope. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 66 of 73 (90.4%);
- RFOs: 19 of 22 (86.4%);
- Policy makers: 8 of 17 (47.1%);

- Library and infrastructure provider: 0 of 1 (0%)

When inspecting the general language used for identifying the individuals in scope of the policy, policy-makers tend to use more general terms, such as ‘scientists / researchers’ or ‘research stakeholders / all participants in research / each beneficiary’, while RFOs and RPOs tend to use more specific terms, like ‘grantees’ and ‘employees’ respectively.

Only a few policies go further, distinguishing between various author characteristics, such as project members, domestic and foreign authors, submitting/corresponding or first/last author, etc. For example:

- **Example 1:** “At least one of the Luxembourg-based members of the project team must be co-author of the publication. In case of PRIDE, AFR, or Industrial Fellowship grants, the PhD candidate must be a co-author of the publication.” (FNR 2023)
- **Example 2 [Translated]:** “scientific monographs by Slovenian authors (having Slovenian citizenship) or foreign authors (working as researchers in the Republic of Slovenia).” (ARRS 2023)
- **Example 3 [Translated]:** “(1) The author is employed at UZH [University of Zurich]. In the case of multi-author publications, the first or last author is employed at UZH, with the understanding that the work was largely created there.; (2) Is neither the first nor the last author employed at UZH, the submitting author and at least a third of all authors must be employed at UZH.; (3) Private lecturers or adjunct professors at UZH who are employed at another institution, can apply for support if at least a third of all authors are employed at UZH.;(4) They are either currently employed/enrolled or during the time in which the work was written.;(5) Researchers are eligible (from doctorate level) from the Faculty of Law, the Faculty of Philosophy, the Faculty of Theology and in individual cases the Faculty of Economics or the Faculty of Mathematics and Natural Sciences (criterion: humanities and social sciences).” (University Library Zurich 2022)

The following examples further illustrate the broad spectrum of policy formulations, ranging from highly generalised to very detailed:

- **Highly generalised**

“...applies to all staff employed...”. (Wageningen University & Research 2020)

“... applies to all researchers employed at the Institute...”. (Translated, Balkanology Institute SANU 2018)

“...applies to all individuals involved in research activities...”. (Translated, Institute of Architecture and Urban Planning of Serbia 2018)

“All employees and doctoral students and other researchers with whom the Institute has concluded an agreement providing for the application of the Policy”. (Institute of Slavic Studies of the Polish Academy of Sciences 2017)

- **Moderately generalised**

"recommends that all engineers, researchers and teacher-researchers as well as all staff working in its associated research units submit their scientific productions in full text (articles, posters, conferences, book chapters, etc.) in the national ... archive or in the archive recognized by the disciplinary community". (Université Grenoble Alpes 2022)

"This Policy addresses the entire ... community: researchers and all staff, students and visiting and temporary staff executing or supporting research at ...". (University of Zurich 2021)

- **Detailed:**

"Who this policy applies to:

-all Open University staff, emeritus, honorary and visiting academics, independent contractors or consultants conducting research at, or on behalf of The Open University, regardless of location, whether working alone, or in collaboration, including in collaboration with researchers from third party organisations.

-Open University staff who manage or support researchers, or supervise postgraduate research students.

-external supervisors of Open University directly supported postgraduate research students.

-postgraduate research students registered with The Open University on a full-time or part-time basis, including those based at Affiliated Research Centres and other partner institutions.

Who this policy does not apply to:

-those undertaking scholarship projects at or on behalf of The Open University unless the scholarship project in question is at the interface between scholarship and research, i.e. corresponds to the Frascati definition of research. If you are undertaking a scholarship project, please refer to the scholarship guidance on the Scholarship web pages.

-students studying taught undergraduate modules and qualifications or postgraduate students registered for taught qualifications, or studying modules that form part of a taught qualification. If you are undertaking a taught course dissertation module, please refer to your course materials and your tutor for further guidance on good research practice in the context of your project.

-This policy does not apply directly to supervisors of postgraduate research students based at Affiliated Research Centres. Nevertheless such supervisors are expected to support their students in their understanding of and adherence to this policy." (Open University 2021)

When comparing the older policies with the more recent ones, there was no substantial difference in how the author specifications were formulated.

Based on our analysis, we can make a few recommendations when it comes to how to formulate author specifications. Our findings reveal a wide range of references to researchers and authors across different policies, which reflects the complexity of the research system. This can make it challenging for researchers to navigate and understand their obligations across different policies. To address this, we recommend that policymakers strive for more alignment in their author specifications, which would make it easier for researchers to navigate the policy landscape.

For policymakers operating at a national level, however, broad and inclusive language such as "all research stakeholders" or "the entire research community" may be appropriate, while such generality may lead to ambiguity and confusion for RPOs or RFOs. RPOs, in particular, often have a complex ecosystem of affiliated individuals, including faculty, researchers, students, and staff at various levels. In these cases, it may be advisable to provide detailed specifications of included and excluded roles to eliminate uncertainty about policy applicability.

The annotated EU funding grant agreement directed at EU funding programmes 2021-2027 contains this policy element and formulates it in the following way:

The responsibility for OA is assigned to "beneficiaries" which is defined as follows:

"Beneficiaries (BEN) — The signatories of this Agreement (either directly or through an accession form)." (EC 2024, p.27)

OA Models

The OA models policy element category contains only one policy element, **OA models**.

OA Models

Specific OA model(s) that the policy prescribes or encourages, such as Gold OA (OA through publisher) or Green OA (self-archiving in a repository).

OA for books, like journal articles, encompasses multiple pathways. The main distinction between these models borrows terminology and practices from journal publishing—gold and green OA. The gold model implies immediate OA of the final, formatted version of record directly through the publisher, often in exchange for a BPC. Green OA, on the other hand, involves the distribution of the accepted manuscript (usually the non-formatted version) through OA repositories. In addition, some policies distinguish diamond OA as a subset of gold OA. Here, the publisher does not require any fees for making the final version of record available OA.

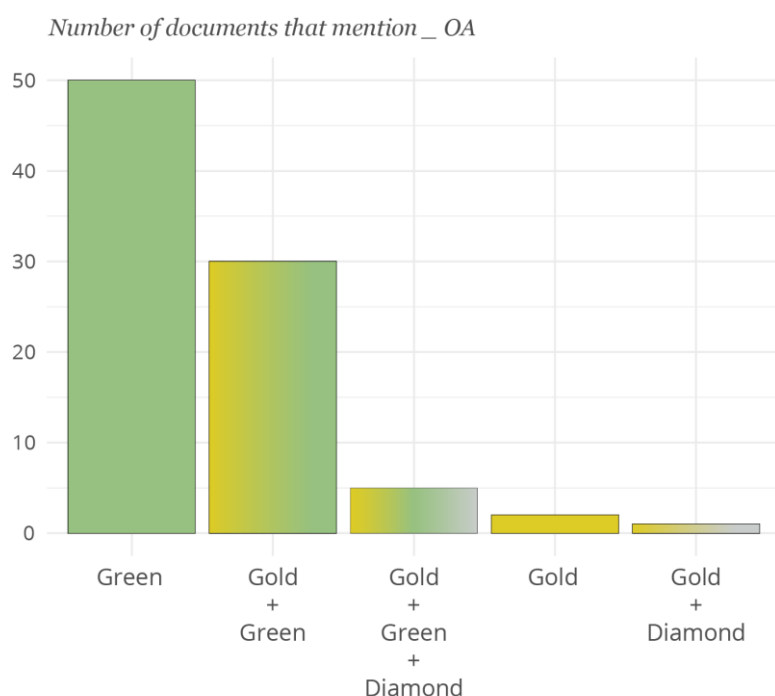
Of the 113 policy documents that mention OA books explicitly, the majority specified the OA model compliant with their requirements and eligible for funding support (n = 88, 77.9%). The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 62 of 73 (84.9%);
- RFOs: 15 of 22 (68.2%);
- Policy makers: 10 of 17 (58.8%);
- Library and infrastructure provider: 1 of 1 (100%)

Among these documents, green OA was the most commonly mentioned model, appearing in a total of 85 documents (see Figure 20). This includes 50 documents that promoted green OA alone and 35 documents that mentioned Green OA in combination with other models (30 with gold OA and 5 with both gold and diamond OA). The combination of gold and green OA was the second most frequent, appearing in 30 documents. Gold OA alone was mentioned in only 2 documents,



while the combination of gold and diamond OA was the least common, appearing in just 1 document.



Note: This analysis is based on documents that explicitly include OA book publications and specify the OA model (n = 88).

Figure 20 - Frequency of OA models mentioned in the collected policies

Among the 36 documents that mentioned more than one OA model, the majority (n = 29, 81%) indicated that compliance could be achieved through any of the mentioned OA models (e.g., gold OA publication OR deposit in a repository). In contrast, only 7 documents (19%) required the OA models to be implemented in parallel (e.g., gold publication AND deposit in a repository).

When examining the OA models promoted by different stakeholder categories, the analysis showed distinct preferences by RPOs and RFOs (see Figure 21). However, it is important to note that our dataset contains a different number of documents for the two categories, with RPOs having 62 documents and RFOs having 15 documents.

Among RPO documents, green OA is the most commonly promoted model, with 39 documents (62.9%) mentioning it. The combination of gold and green OA follows, appearing in 18 documents (29.0%). Gold OA alone and the combination of gold, green, and diamond OA are mentioned in 2 documents each (3.23% each), while the combination of gold and diamond OA is the least common, appearing in only 1 document (1.61%).

On the other hand, among RFO documents, the combination of gold and green OA is the most frequently mentioned, appearing in 7 documents (46.7%). Green OA alone follows closely, being mentioned in 6 documents (40%). The combination of gold, green, and diamond OA appears in 2

documents (13.3%). Notably, gold OA alone and the combination of Gold and Diamond OA are not mentioned in any RFO documents.

In summary, while both RPOs and RFOs prioritise green OA and the combination of gold and green OA, RPOs show a stronger preference for green OA alone. Additionally, RPOs mention a wider variety of OA model combinations compared to RFOs.

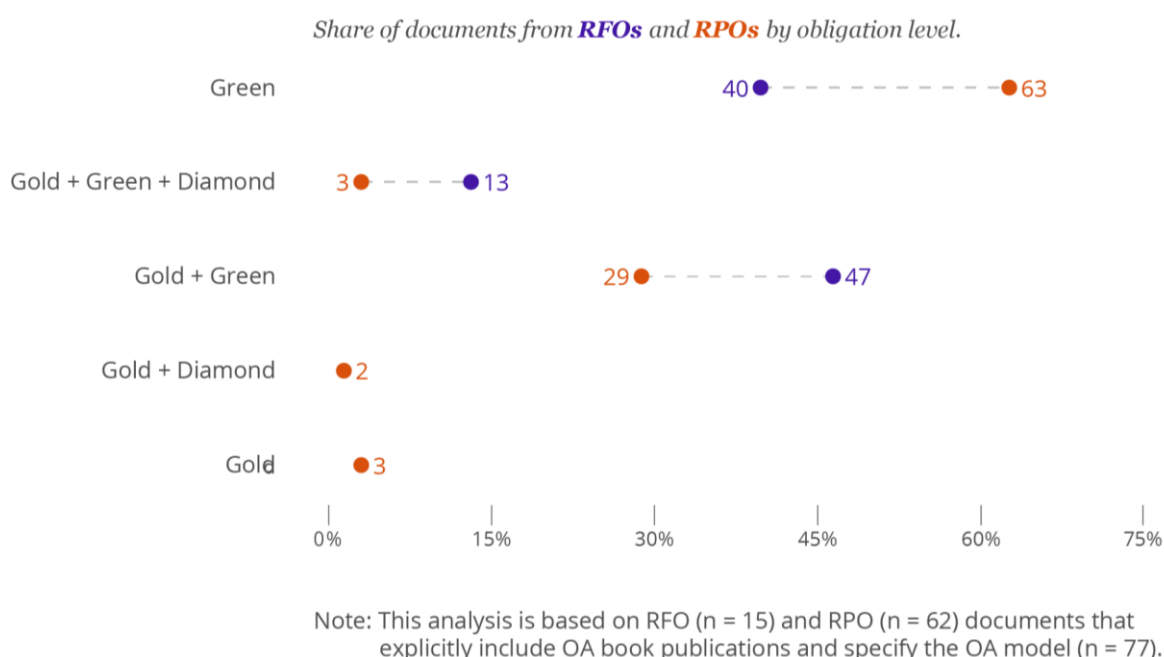


Figure 21 - OA model mentions by stakeholder group

OA Models and Level of Obligation

Next, the policy documents were analysed to determine the overall level of obligation for complying with the OA policy, categorising them into four groups: Recommendation, Requirement, Unclear, and a hybrid category where gold OA is recommended, but green OA is required (see Figure 22).

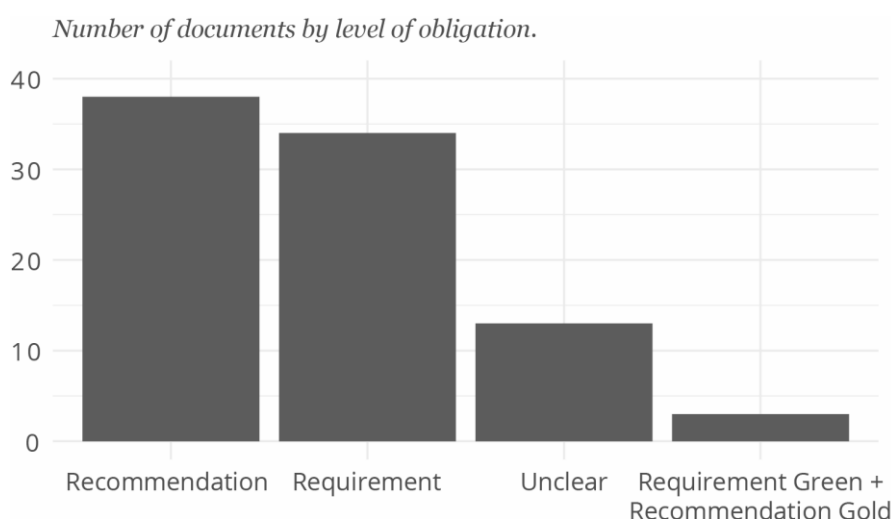
The most common obligation level in our dataset is Recommendation, appearing in 38 documents. This suggests that a significant portion of the policies encourage compliance but do not mandate it. However, closely following is the Requirement category, which appears in 34 documents, indicating that mandatory compliance with the OA policy is similarly common. Interestingly, there is a small subset of 3 documents that have a hybrid obligation level, where gold OA is recommended, but green OA is required. This suggests that some policies differentiate between the obligation levels for different OA models.

Finally, in 13 documents, the obligation level is Unclear, meaning that the language used in these policies is ambiguous and does not clearly state whether compliance is recommended or required. It is important to note that the unclear obligation levels might not be a reflection of the policies themselves, but rather a result of potential "lost in translation" issues, as most of these instances were found in documents written in languages other than English.

For example, consider this excerpt from the Open Access policy of the University of Latvia (2022):

Example 1: "University of Latvia determines: 3.1. researchers to deposit in the institutional repository of the University of Latvia a digital copy of the full text, as well as the related metadata of all publications (author's final manuscript after peer review or publishers' final version) upon acceptance for publication."

In this case, the phrase 'University of Latvia determines: researchers to deposit' does not clearly indicate whether this is a requirement or a recommendation, which makes it difficult to ascertain the exact level of obligation.



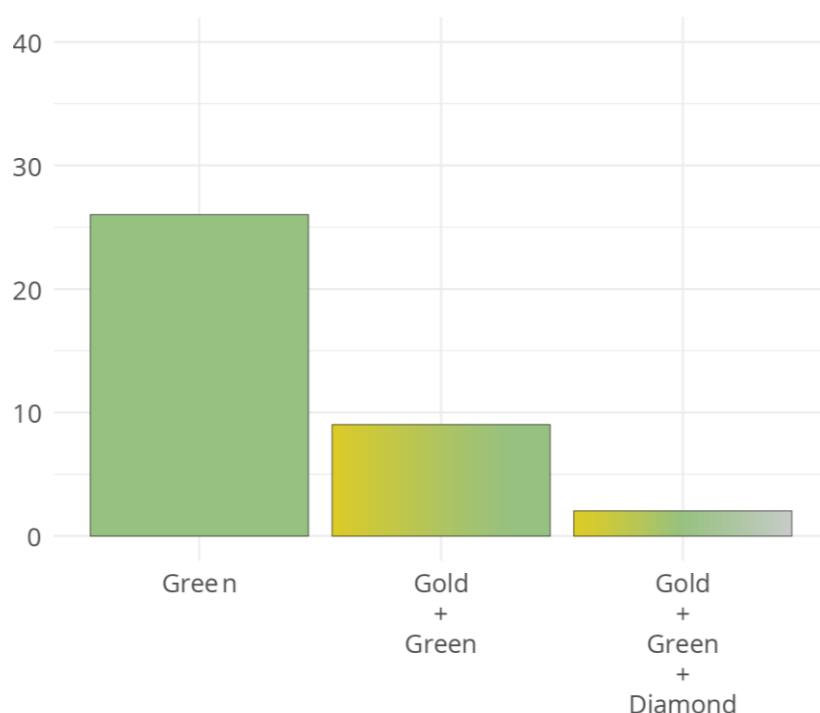
Note: This analysis is based on documents that explicitly include OA book publications and specify the OA model (n = 88).

Figure 22 - Degree of obligation for OA when a specific OA model is mentioned

When OA is required, the most frequently mentioned model is green OA, appearing in 26 documents (see Figure 23). The second most common model is the combination of gold and green OA, which appears in 9 documents. In a small subset of 2 documents, the combination of gold, green, and diamond OA is mentioned, indicating that only a few policies highlight diamond OA alongside gold and green OA as acceptable options. It is noteworthy that gold OA alone and the combination of gold and diamond OA are not mentioned as required models in any of the documents analysed.

When OA is required, which models are mentioned?

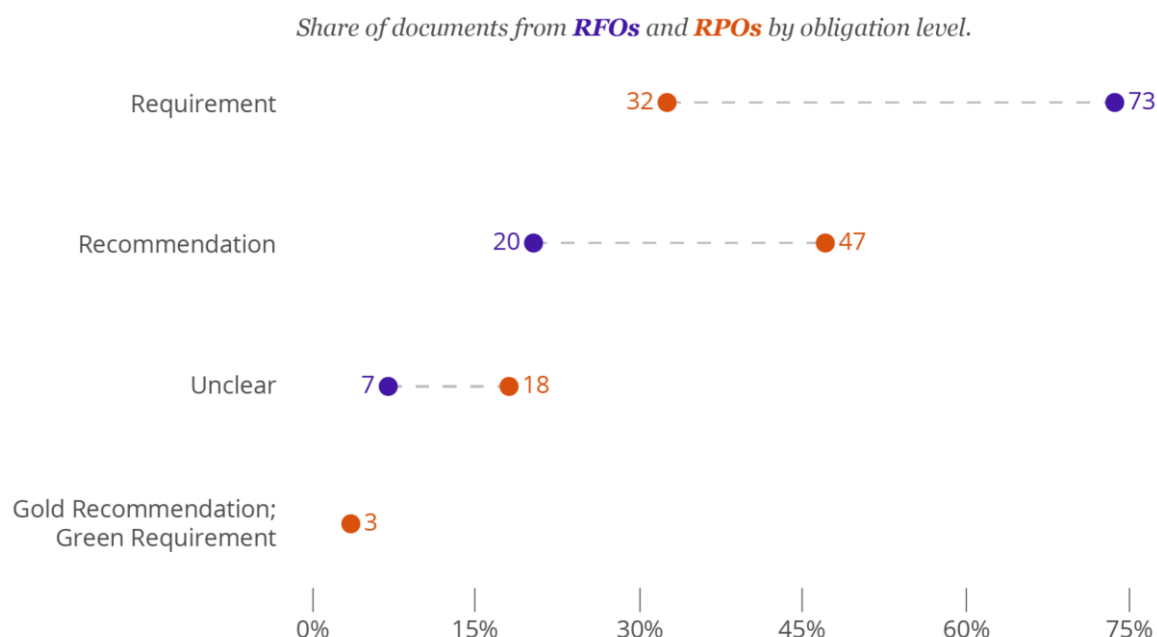
Number of documents that mention _ OA



Note: This analysis is based on documents that explicitly include OA book publications, require OA, and specify the model (n = 37).

Figure 23 - OA models mentioned when OA is a requirement in the policy

When examining the obligation levels for complying with OA book policies by stakeholder category, we find that RPOs and RFOs exhibit different patterns in terms of obligation levels (see Figure 24). RPOs most commonly recommend OA (n = 29, 47%), RFOs mandate OA (n = 11, 73%). This indicates that RFOs may be more likely to enforce OA compliance as a condition for receiving funding. In addition, this stricter approach ensures that the research outputs resulting from the funded projects are made openly accessible. RPOs tend to encourage and promote OA compliance without making it a strict requirement. This strategy allows for more flexibility and researchers to decide whether to comply with the OA policy based on their individual circumstances or preferences.



Note: This analysis is based on RFO (n = 15) and RPO (n = 62) documents that explicitly include OA book publications and specify the OA model (n = 77).

Figure 24 - Distribution of OA models per stakeholder category and policy OA obligation level

The annotated EU funding grant agreement directed at EU funding programmes 2021-2027 contains this policy element and formulates it in the following way:

"Repository deposit is always necessary. Costs in "full open access venues" are eligible for reimbursement "at the latest at the time of publication, a machine-readable electronic copy of the published version or the final peer-reviewed manuscript accepted for publication, is deposited in a trusted repository for scientific publications" and "Only publication fees in full open access venues for scientific publications are eligible for reimbursement." (EC 2024, p.368).

Furthermore, this text provides further specifications (EC 2024, p. 372):

"Open access publishing venues' are publishing venues whose entire scholarly content is published in open access (e.g. open access journals, books, publishing platforms, repositories or preprint servers). 'Hybrid publishing venues' are publishing venues which provide part of their scholarly content in open access, while another part is accessible through subscriptions/payments (e.g. hybrid journals and books). These are often journals/books based on subscription/purchase which provide open access to part of their content when an open access fee is paid by their authors/institutions (paid ad hoc or on the basis of an institutional agreement with the publishers). 'Mirror and sister journals' (i.e. more recently established open access versions of existing subscription journals, which may share the same editorial board as the original journal and usually have (at least initially) the same or very similar aims, scope and peer review processes and policies; these journals often have a name similar to the subscription title but a different ISSN) are considered open access publishing venues for Horizon Europe grants (not hybrid journals). In parallel, beneficiaries/authors must deposit their publication in a machine-readable

format (i.e. structured format that can automatically be read and processed by a computer) in a trusted repository — before or at publication time — and immediately provide open access to the publication through that repository."

and the following (EC 2024, p.373):

"Publishing fees (including page charges or colour charges) for publications in other venues, for example in subscription journals (including hybrid journals) or in books that contain some scholarly content that is open and some that is closed are NOT eligible costs."

Rights and Licensing

The rights and licensing policy element category includes two policy elements: **Licensing**, and **Grant of Rights/Copyright Retention**.

Licensing

The type of open licences recommended or required for OA publications under the policy. Example: CC BY, CC BY-NC, CC BY-ND, CC BY-NC-ND.

Publishing under an open licence enables authors to share their research outputs. Of the 113 collected policy documents that mentioned books explicitly, 48 (42.5%) mention licensing. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 26 of 73 (35.6%);
- RFOs: 14 of 22 (63.6%);
- Policy makers: 7 of 17 (41.2%);
- Library and infrastructure provider: 1 of 1 (100%)

Open licences are either recommended or required for OA publications, including books with far more policies requiring or calling for this than recommending it: almost 70%. The open licences specified are typically Creative Commons ones, i.e. CC BY, CC BY-NC, CC BY-ND, and CC BY-NC-ND.

We want to highlight that a small number of policies mentions alternative Creative Commons licences:

- 6 policies mention CC BY-SA (Share-Alike)
- 1 policy mentions CC0 (Creative Commons Zero)
- 1 policy mentions both CC BY-SA and CC0

However, no other alternative licences, such as GNU General Public License or other non-Creative Commons copyleft licences, were mentioned in the analysed policies

Policy mentions of open licensing by RPOs refer largely to authors' rights, compliance to funder requirements, and/or dealings with publishers.

The dates of policy documents that mention open licensing range from 2014 to 2024. The vast majority of OA book policies mentioning open licensing are more recent: 31 of the total 48 (64.6%) documents date from 2021 to 2024. This recent trend is more pronounced compared to the overall dataset of OA book policies, where 53.1% (60 of 113) are from the same period.

From our broad sample, it was the FCT, the main Portuguese national funder, who introduced a policy in this area first in 2014, ten years ahead of others.

The vast majority of the 48 policies with open licensing included specify Creative Commons as the preferred type of licence, with only a few that do not specify any type (4 of 48). 37 indicated a preference for the CC BY licence. Although the policy excerpt below applies to journal publications and not books, it is a clear explanation of the reasoning behind the institution's open licensing requirement:

Example 1: There are a number of different Creative Commons licences. We believe that the greatest societal good is possible when people are free to re-distribute scholarship and to create derivative works. This is why EUR recommends the CC BY license, under which others may re-use your work, on condition that they cite you (Erasmus University Rotterdam 2021).

Some policy documents recommend against using certain Creative Commons licences. For example, one policy recommends against using CC BY NC:

Example 2: "...as an NC licence is often associated with unintended restrictions on the dissemination of a publication ... the CC BY-ND licence, on the other hand, can only be granted if the authors explicitly apply to their funder for a justified licence and the use is approved. ... In addition, the CC BY-NC and -ND (no editing) options also do not meet the requirements of the Open Definition." (German Science and Humanities Council 2022).

On the other hand, a small handful call for an open licence that cannot be used to obtain profit.

Nine policymakers connect requiring an open licence with funding the OA output. Depending on national circumstances, this is done by recommending a CC licence or CC BY, requiring a CC licence (or a specific one) for Gold or BPC-funded works, or asking researchers for justifications if the CC BY licence is not applied. Certain funders also financially incentivise authors to choose more open licences by paying more for those outputs. One university, HU Berlin, disincentivises more restrictive open licences:

Example 3: "The publication must be released under an open licence, specifically the Creative Commons licence CC BY 4.0. Exceptions are only possible in justified exceptional cases and after consultation, and may be accompanied by a reduction of the funding amount. (more information on licences)" (HU Berlin 2021).

Policy documents ideally also specify which licences apply to which forms of scholarly publication: in the current sample, only 7 documents specify which licence is to be used for books. For example:

Example 4: “All articles will be published under the open license Creative Commons-Attribution CC BY or equivalent ... Monographs will be published under the CC BY or CC BY-NC SA licenses.” (BELSPO 2017).

The previous example is of a policy document that proposes *CC BY NC SA* for books specifically in the current PALOMERA collection. Another policy proposes *CC BY NC ND*. The remaining 5 policy documents propose *CC BY* or a variation thereof.

Six policies (1 policymaker, 2 RFOs, 3 RPOs) specify which Creative Commons licence must be used when requesting the reimbursement of a BPC (or APC).

Example 5: “[To be eligible for BPC funding] The work is published under a Creative Commons (CC) licence, preferably CC-BY.” (University Library of Bern 2022).

Example 6: “All publications that were funded by a BPC grant must be assigned a creative commons licence. A CC BY-NC-ND (creative commons: created by, non-commercial, no derivative) is the minimum requirement. The SNSF recommends using the CC-BY licence.” (Swiss National Science Foundation 2023).

Few policies also provide education or guidance on this complex topic. The German Science and Humanities Council, however, provides particularly thorough guidance and educational information on open licensing:

Example 7: “...education and awareness-raising with regard to licences with restrictions appears to be important: From a legal point of view, it is recommended that before granting a CC BY-NC licence, it should be checked whether the desired restrictions are not already obtained with one of the other sub-categories, as an NC licence is often associated with unintended restrictions on the dissemination of a publication. For example, the appropriation of content by commercial companies can already be prohibited as part of the SA licence (distribution under equal conditions). However, institutions, initiatives and projects such as knowledge databases or open-source projects, which also work to enable free access to knowledge but cannot exclude the possibility of commercial use, can no longer use content under an NC licence. cOAlition S is also critical of the NC licence and requires the use of a Creative Commons attribution (CC BY) 4.0 licence by default. The CC BY-SA and CC0 variants are also accepted; the CC BY-ND licence, on the other hand, can only be granted if the authors explicitly apply to their funder for a justified licence and the use is approved...” (German Science and Humanities Council 2022).

The annotated EU funding grant agreement directed at EU funding programmes 2021-2027 contains this policy element and formulates it in the following way:

" immediate open access is provided to the deposited publication via the repository, under the latest available version of the Creative Commons Attribution International Public Licence (CC BY) or a licence with equivalent rights; for monographs and other long-text formats, the licence may exclude commercial uses and derivative works (e.g. CC BY-NC, CC BY-ND) [...]" (EC 2024, p.368)

and

"Scientific publications must be licensed under the latest available version of a Creative Commons Attribution International Public Licence (CC BY) or an equivalent licence. For monographs and other long-text formats the licence may exclude commercial uses and derivative works (as in CC BY-NC, CC BY-ND or CC BY-NC-ND or equivalent licences)." (EC 2024, p.374)

Grant of Rights/Copyright Retention

Provisions to ensure that the author retains the rights to publish OA, such as recommending a non-exclusive publishing agreement.

This policy element entails including provisions to ensure that the author retains the rights to publish OA. Highlighting this element is a reaction to a tradition in scholarly publishing of authors transferring their rights to publishers in exchange for proprietary publication services. Authors' rights retention ensures that research outputs can be disseminated as widely and openly as possible. When institutions and researchers retain their rights to research outputs, they are more able to broadly share outputs, including under an open licence if assigned. One way that stakeholders, such as RPO, RFO and national policy makers, can ensure that authors retain their rights is by recommending a non-exclusive publishing agreement as part of their policies.

A growing number of funders require that researchers retain their rights while making their scholarly outputs available under an open licence (Treadway et al., 2023). The Rights Retention Strategy of cOAlition S has been influential in increasing this number. As a result, many funders apply the strategy of cOAlition S or a similar strategy in their policies (Plan S Rights Retention Strategy, n.d.).

Of the 113 collected policy documents that mentioned books explicitly, 60 (53.1%) include stipulations related to copyright and the rights to share and publish OA. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 40 of 73 (54.8%);
- RFOs: 12 of 22 (54.6%);
- Policy makers: 8 of 17 (47.1%);
- Library and infrastructure provider: 0 of 1 (0%)

In total, 38 documents mention measures to retain the rights to publish OA, which is just over thirty percent of policies that explicitly include books. Some documents indicate that rights are retained by the institution, while others indicate the researcher. This is dependent on the national legal context.

On rights retention, the way that policymakers refer to this topic differs widely amongst the almost 40 instances. These range from stating the requirement e.g. like this:

Example 1: "The authors or editors transfer only non-exclusive rights to the publisher, instead of exclusive rights." (HU Berlin 2021).

Some policies instruct authors how to take this action when “concluding contracts with publishers” (Vienna University of Technology, 2018) or “Authors are advised to consider rights ownership, open access and/or self archiving issues prior to agreement with publishers” (Irish Research Council, 2013). More specifically, this instruction may amount to: “It is recommended not to transfer exclusive rights” (Institute of Literary Research of the Polish Academy of Science, 2021). Briefly referring to national laws or decrees is important as well as helpful. For example,

Example 2: “...this decree is reinforced by a recent modification of the Federal Belgian Law on Authors’ rights. Since July 2018 This right prevails over any contract between the author and a publisher, even though other restrictions were mentioned in this contract.” (Université catholique de Louvain 2018).

Some policies also include the motivations for rights retention, such as better guaranteeing deposit in a repository, immediate OA or no embargo to underline the policy stipulation’s value.

Example 3 [Translated]: “In this context, the University of Basel expects authors to refrain, wherever possible, from assigning exclusive rights of use to publishers and to reserve a simple right of use for the public distribution of their works.” (University Library of Basel 2019).

Example 4: “Do not sign over the exclusive and unlimited rights to your texts to your publisher. Insist on a license that allows you to fulfill your obligation to your funder and your university. We are happy to assist you - feel free to get in touch before you sign your contract.” (University Library of Bern 2022).

Example 5 [Translated]: “The University of Bremen encourages authors to secure the right to publish or the right to self-archive electronic versions in publishing negotiations, as the guidelines of various research funders also stipulate. It therefore recommends that authors refrain from assigning exclusive rights of use and reserve a simple right of use for public access”. (University of Bremen 2022)

A growing number of funders require that researchers retain their rights while making their scholarly outputs available under an open licence. The Rights Retention Strategy of cOAlition S has been influential in increasing this number (Plan S Rights Retention Strategy, n.d.). As a result, many funders apply the strategy of cOAlition S or a similar strategy in their policies. Among RFOs, rights retention requirements may be tied to other requirements, such as the requirement for scholarly publications to acknowledge the funding source. Three RFO policies in this sample do so (FCT, FNR, SNF). For example, in the Open Access Fund policy of the FNR, the national funder of Luxembourg,

Example 6: “The publication must contain the proper acknowledgment of FNR funding, including the Rights retention statement. (FNR 2023)

Since funder policies only apply to their grantees and not to all researchers, having a rights retention policy is important for RPOs also to bring more equity to the scholarly communication system (Treadway et al., 2023). Among the sample in this selection, RPOs are also increasingly including rights retention in OA policy documents: 20 of the 40 documents in the selection date from 2021 onward. These policies should ideally provide resources to support researchers to meet requirements. At present, only 14 RPO policy documents indicate resources that are available to researchers to support them in negotiating with publishers to retain their rights. The five types of

resources identified in these documents are: provision of text or documentation that authors can use to support their bargaining, indication of where to find support or advice within the institution, reference to national legal protections of authors' rights, explicit statement that the institutional policy aligns with national guidelines, and an explicit statement that the institutional policy must supersede the publisher's contract.

Policy documents that include statements referring to rights retention all date from between 2010 and 2023, with the median at 2021. The influence of the cOAlition S Rights Retention Strategy, which came into force for early adopters in January 2021, is clear. Therefore it is perhaps unsurprising that the majority (11) of RFO policy documents date from 2021 or later although the Irish Research Council already had a policy in 2013 and the Portuguese FCT Fundação para a Ciência e Tecnologia in 2014. The date range of RPO policy documents in this category falls between 2010 and 2022, with exactly half (20) of the documents predating the Rights Retention Strategy of cOAlition S in January 2021. Half of the national policy documents that promote rights retention for authors of scientific works are dated 2022.

Some policies 'require' rights retention, while others encourage or recommend it to varying degrees, using terms like 'strongly encourage', 'strongly recommend', or simply 'encourage'. It is only around a quarter of the sample who call for rights retention that require it although this is slightly higher than those that recommend it. Many others are neutral or use language to state the policy as fact using the present tense and the verb to be, e.g. "Permission granted by the author is a non-exclusive, irrevocable, royalty-free licence."

Some policies require rights retention only for articles, and only few encompass a wider range of scholarly publications, including books. When books are included, the application of rights retention requirements can differ from those for articles. For instance,

Example 7 [Translated]: "In the area of scientific publications, the amendment aims to extend the right of secondary publication beyond the area of third-party funded research to all employees in science, shorten the embargo period for exercising the right of secondary publication from 12 to 6 months, and extend the right of secondary publication to the publisher's version. Extension of the right of secondary publication to monographs and collective works (taking into account an embargo period that is appropriate to the form of publication.)" (Open-Access-Strategie für Berlin 2015).

Some policies provide resources to researchers that facilitate implementation of the policy; for example, the Swiss SNSF's OA policy includes text that researchers can use when submitting an article in order to retain their rights according to local law (among other funder requirements):

Example 8: "Insert the following standard statement when submitting an article, e.g. in the acknowledgements field: "This research was funded in whole or in part by the Swiss National Science Foundation (SNSF) [Grant number]. For the purpose of Open Access, a CC BY public copyright licence is applied to any Author Accepted Manuscript (AAM) version arising from this submission" (Swiss National Science Foundation 2023).

Additionally, some policies explicitly state that the policy supersedes publisher contracts if national legislation allows this, for example:

Example 9: "Under the University's IP Policy each staff member grants a licence* to the University for 'reasonable purposes' which includes deposit to our institutional repository. This mechanism supersedes any downstream licence that a publisher may try to impose,

and researchers will be fully supported by the University to achieve open access under the terms of this policy (University of St Andrews 2023).

The annotated EU funding grant agreement directed at EU funding programmes 2021-2027 contains this policy element and formulates it in the following way:

"Beneficiaries (or authors) must retain sufficient intellectual property rights to comply with the open access requirements." (p. 368) "Best practice: Beneficiaries/authors retain the copyright on their work and grant, insofar as possible, non-exclusive licences to publishers. To facilitate this, beneficiaries should put in place institutional policies to ensure copyright retention by authors and/or beneficiaries and compliance with the open access requirements." (EC 2024 p.374)

Practical Implementation

The practical implementation policy element category contains three components: **time of deposit**, **deposited version**, and **publishing venue restrictions**. The time of deposit and deposited version elements are so closely interrelated that they are dealt with in an integrated way in this section.

Time of Deposit

A designated timeframe within which authors are required to make their work OA under the policy.

Deposited Version

A specific version of the work that authors are required to deposit or make OA under the policy (e.g., pre-print, post-print (author's accepted manuscript), publisher's version).

Two key elements in OA policies for books are the time of deposit and the specified deposited version. The time of deposit dictates when research becomes publicly available, influencing the speed of knowledge dissemination and the potential for early impact. Meanwhile, the specified deposited version—whether it is a pre-print, post-print (author's accepted manuscript), or the publisher's version—dictates in what format the publicly available version can be made openly accessible which has implications for machine-readability, indexation, and re-use of the content among other things. Together, these elements seek to balance timely dissemination and protecting the publisher's financial interests, directly impacting the accessibility and long-term preservation of research outputs.

Of the 113 collected policy documents that mentioned books explicitly, 64 (56.6%) mention the time of deposit and 52 (46%) specify the deposited version. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

	Time of Deposit	Deposited Version
RPOs	42 of 73 (57.5%)	38 of 73 (52.1%)
RFOs	16 of 22 (72.7%)	9 of 22 (40.9%)
Policy makers	6 of 17 (35.3%)	5 of 17 (29.4%)
Library and infrastructure provider	0 of 1 (0%)	0 of 1 (0%)

Policy documents issued by RFOs often demand the AAM and/or VoR as the version to be self-archived in a repository (institutional or disciplinary or subject-specific like Europe PMC). The majority of these policies give authors the option to deposit either version. However, it is worth noting that these policies typically do not include specific requirements regarding the quality and sustainability of the repository. Some of the rare exceptions to this are Wellcome Trust's policy which requires a specific subject-specific repository to be used - Europe PubMed Central (Europe PMC), and NWO requires deposit in the OAPEN Library.

Time of deposit required by policies varied between immediate up until 12 months from the date of publication.

All collected RFO policies that specified a deposited version also defined a required timeframe for deposit and included information about available funding sources, licensing, compliance, and monitoring procedures (with one exception of Swedish Research Council policy). Some funders, such as the Research Council of Norway and Ministry of Romania, specify a time frame for depositing publications, but do not stipulate which version of the publication should be deposited.

These variable approaches to deposit requirements are illustrated by the following examples from prominent funders. These examples demonstrate the range of specifications regarding version types and deposit timelines:

Example 1: "The final Version of Record or the Author's Accepted Manuscript must be free to view and download via an online publication platform, publishers' website, or institutional or subject repository within a maximum of 12 months of publication." (UKRI 2023)

Example 2: "The author must also deposit the final version (VoR) of their book, book chapter or monograph in a repository integrated in the RCAAP network - Portugal's Open Access Scientific Repositories. This deposit should preferably take place at the time of acceptance for publication or, if this is not possible, immediately after formal publication." (Fundação para a Ciência e a Tecnologia 2023)

There does not seem to be a clear pattern at a country level between how RPOs and RFOs have formulated their criterion regarding the timeframe and version for deposit. For example, in Switzerland, SNSF (RFO) requires deposit of at least the author's accepted manuscript, but RPOs (University of Bern, University of Zurich and Basel) recommend or require the VoR of the final published version. Similarly, in Poland and Moldova some RPOs oblige their staff to deposit the publications (incl. books) into an open repository (institutional or other) even though there is no national/funder policy requiring OA deposit.

RPO policies exhibit a range of deposit timeframes, from immediate publication to an 18-month delay. However, many policies incorporate flexibility, allowing for extended periods to accommodate publisher embargoes or shortened timelines to comply with research funder requirements. The following examples illustrate this variation in RPO policies:

Example 3: “RTU requires that metadata and a copy of the final version (either author final manuscript – post-print, or publisher version) of all peer reviewed scientific publications of RTU personnel are deposited in RTU institutional repository immediately after its publication. RTU requires that the full-text of publications be made openly available in accordance with the conditions set out by the publisher and no later than 6-months after publication in Science, Technology, Engineering and Mathematics (STEM) or 12 months after publication in the Social Science and Humanities (SSH).” (Riga Technical University 2016)

Example 4: “The University will make the AAM available to the public via the institutional repository under a Creative Commons licence after an embargo period, typically of 12 months, or sooner if required by research funders.” (University of St Andrews 2023)

The analysis revealed ambiguities in the formulation of some deposit requirements.

For instance, the University of Belgrade also allows any publication versions permitted in the publishing agreement to be deposited, and wording the mandate as “If possible, the published version (or peer-reviewed manuscript) must be available in open access immediately or no later than 18 months after the date of publication.” This phrasing may introduce uncertainty about the policy’s strictness or practical implications of this requirement, leaving room for interpretation regarding compliance and enforcement.

Some policies use passive voice (e.g. *the full text of all publications has to be made openly available*) rather than active voice that is directed towards authors/university itself to deposit the publications, e.g. *authors are obliged*, or *The University will make the AAM available to the public*.

We also noticed that RPOs in some countries use identical phrasing which may suggest use of a common template, e.g. Serbian, Romanian and Polish RPOs.

The co-occurrence of the time of deposit element with the deposited version element was found to vary. For example, of the 50 RPO documents that specify these elements, more than half (n = 30) include both.

Some policies at the national level provide clear guidelines on both the timing and version of deposit. For instance, the Slovenian national strategy offers a precise directive for open access monographs:

Example 5: “Open access scientific monographs, licensed with open access licenses Creative Commons, have to be openly accessible in a repository in the form of a published monograph upon publication at the latest.” (National Strategy Of Open Access To Scientific Publications And Research Data In Slovenia 2015-2020 2015)

We could not discern any particular pattern in terms of how the elements have changed over time, other than individual instances where an organisation has changed from requiring AAM deposit to

VoR deposit between two versions of their policies (Helmholtz-Gemeinschaft switched from AAM deposit in the 2016 version to VoR in the 2022 version of the policy).

The annotated EU funding grant agreement directed at EU funding programmes 2021-2027 contains both the time of deposit and deposited version policy elements and formulates it in the following integrated way:

"at the latest at the time of publication, a machine-readable electronic copy of the published version or the final peer-reviewed manuscript accepted for publication, is deposited in a trusted repository for scientific publications" (EC 2024 p.368)

Publishing Venue Restrictions

Limitations for the selection of publishing venues for compliance with the policy's requirements (e.g., national lists, DOAJ/DOAB)

Publishing venue restrictions highlight the ongoing tension between ensuring publication quality and promoting OA. These restrictions, when present, often reference established quality assurance mechanisms such as DOAB and OASPA. Despite being mentioned in only a small fraction of policies, these instances reveal how various stakeholders attempt to balance quality control with the principles of open dissemination.

Of the 113 collected policy documents that mentioned books explicitly, 13 (11.5%) include publishing venue restrictions. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 8 of 73 (11%);
- RFOs: 3 of 22 (13.6%);
- Policy makers: 2 of 17 (11.8%);
- Library and infrastructure provider: 0 of 1 (0%)

Ten out of 13 stakeholders (7 RPOs and 3 RFOs) operate in a German-speaking environment (Germany, Austria, Switzerland, Luxembourg). Almost all excerpts point in the same direction, referencing organisations which provide a guarantee for the publishers' quality (DOAB and OASPA are frequently mentioned).

Moving to one end of the spectrum in terms of expression of detail, the aforementioned reference to DOAB and OASPA is strengthened by adding further requirements. For instance, the author is to inquire with the publisher into "a detailed information on workflow, rights transfer, and costing, including OA costs, in the form of a prepared checklist." (RPO, Germany, 2017) In another example of an RPO from Germany (2021), the author is to choose a publisher that abides by the quality standards set out by the Arbeitsgemeinschaft Universitätsverlage (Working Group of the University Presses) - an umbrella organisation for scholarly publishers from Germany, Austria, Switzerland, and Italy.

At the other end of the spectrum, the assurance of quality with regards to the publisher is expressed in a milder, more permissive form. For instance, in 2023 a French policy maker required the author to inquire with the publisher into the peer-review procedure: "to describe precisely, and if possible in a standardised manner, the manuscript evaluation procedures implemented and the actors involved." In an OA document from 2022, a Swiss RPO recommended authors to choose a publisher who is a member of DOAB or OASPA or who "at least follows their principles."

The annotated EU funding grant agreement directed at EU funding programmes 2021-2027 does not contain this policy element in terms of directing or restricting eligible outlets (outside of some restrictions on what is funded, more on that in the funding element analysis), but the EC has a specific requirement that all publications be deposited in a "trusted repository" for which they have a list of specific requirements from page 373 onward (EC 2024).

Funding

This policy element category contains two policy elements related to funding information in the policy: **Funding availability** and **funding period**.

Funding Availability

Whether funding is provided for covering article or book processing charges as part of the policy.

The funding element in OA policies plays a critical role in facilitating OA publishing by addressing cost barriers. Furthermore, it demonstrates a financial commitment to OA, provides practical support for authors, and can significantly influence compliance with OA mandates. However, given



the rapidly evolving landscape of OA publishing and funding options, a nuanced approach to policy formulation is beneficial. It may be prudent to incorporate a general mention of funding availability within the policy itself, while maintaining more detailed information about specific mechanisms and monetary allocations in a separate, easily updatable resource. This strategy would allow for greater flexibility in adapting to changing circumstances and emerging opportunities in the OA publishing ecosystem, without necessitating frequent revisions to the core policy document.

Our analysis sought to identify any indication of financial support OA within policy documents, ranging from brief mentions with references to external sources, to comprehensive details embedded directly in the policy text.

Of the 113 collected policy documents that mentioned books explicitly, 46 (40.7%) also mention funding availability. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 20 of 73 (27.4%);
- RFOs: 16 of 22 (72.7%);
- Policy makers: 10 of 17 (58.8%);
- Library and infrastructure provider: 0 of 1 (0%)

RFOs typically provide more comprehensive and detailed funding information in their policies. This distinction arises from RFOs' direct involvement in funding specific projects and their focus on a limited number of individuals and works. The examples below demonstrate how RFOs are actively addressing the financial challenges of OA book publishing through targeted funding initiatives. They showcase different models of support, including modular funding approaches and reimbursement schemes for BPCs, reflecting the diverse strategies employed to promote OA books.

Example 1: “Other forms of peer-reviewed publications (e.g., monographs, edited volumes or proceedings, databases and other web-based formats) are supported by the Stand-Alone Publications programme also called the Book Publications funding program, effective as of October 1, 2023. Funding is applied for in modules. The maximum funding amount is €22,000.” (FWF 2023)

Example 2: “NWO has launched a special funding scheme for Open Access books (this programme reimburses the BPCs associated with making academic books available. Max. 10 000 EUR per project.) The programme Open Access Books reimburses the book processing charges (BPC) associated with making academic books available in Open Access form.” (NWO 2021)

RPOs show a considerable variation in their approach to OA support, reflecting diverse institutional commitments to OA initiatives. Notably, comprehensive and universal funding for OA books remains the exception rather than the rule within this stakeholder group. The following examples from two universities illustrate how RPO approaches can range from specific financial allocations to broader support services, demonstrating different ways these institutions are addressing funding for OA books.

Example 3: “The University of Bern supports its researchers with an Open Access Fonds to cover APCs and BPCs: APCs for articles in Open Access Gold: max. Fr 2,500.- BPCs for books and book chapters in Open Access Gold: max. Fr 8'000.-” (University Library of Bern 2022)

Example 4: "The University Library shall support members of the university in all questions related to academic publishing with regard to open access by providing information materials, consultation services, and finances (e.g., publication funds, financial support for open access monographs and anthologies and other financial support)." (Free University of Berlin 2021)

Policymakers often operating at the national level typically maintain a more indirect relationship with the works to be funded compared to RFOs and RPOs. These stakeholders rarely introduce unique funding mechanisms directly. The following examples from Slovenia and Belgium demonstrate how national-level policies address funding for OA books:

Example 5: "Should they decide for the paid open accessibility of a publication, the Article Processing Charges (APC) of an open access peer-reviewed article in an open access scientific journal and in a hybrid scientific journal as well as Book Processing Charges of an open access monograph are eligible costs for reimbursement during the period of the research." (National Strategy Of Open Access To Scientific Publications And Research Data In Slovenia 2015-2020 2015)

Example 6: "Maximum grant funds retrievable per article for full OA journals amount to 1300 €. This amount can be adjusted per decision of the Federal Open Access Strategy Committee. Maximum grant funds retrievable for full OA monographs amount to 6000 €. This amount can be adjusted per decision of the Federal Open Access Strategy Committee." (BELSPO 2017)

Overall we could not discern any substantial changes in the pattern over time of how funding availability has appeared in policies between 2010 and 2024, funding availability appears (and is missing) among both older and newer policies.

The annotated EU funding grant agreement directed at EU funding programmes 2021-2027 contains this policy element and formulates it in the following way:

"Publishing fees for open access books may be eligible to the extent that they cover the first digital open access edition of the book (which could include different formats such as html, pdf, epub, etc.). Printing fees for monographs and other books are NOT eligible. (p. 373) Publishing fees (including page charges or colour charges) for publications in other venues, for example in subscription journals (including hybrid journals) or in books that contain some scholarly content that is open and some that is closed are NOT eligible costs." (p.373) "Only publication fees in full open access venues for scientific publications are eligible for reimbursement." (EC 2024 p. 368)

Funding Period

The specific duration during which authors can apply for and utilise the provided funding to cover the costs associated with OA publication.

The funding period is a crucial yet, as our analysis suggests, often overlooked element in OA book policies. This element defines the specific duration during which authors can apply for and utilise provided funding to cover OA publication costs. The funding period plays a vital role in shaping the accessibility and practicality of OA support, directly impacting authors' ability to publish their work openly. By specifying the funding period, policies address the temporal aspects of the publishing

process, acknowledging the often lengthy timelines associated with book production. This element can significantly influence authors' publishing decisions and strategies, potentially affecting the overall uptake of OA book publishing.

Of the 113 collected policy documents that mentioned books explicitly, 13 (11.5%) specify the funding period. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 5 of 73 (6.9%);
- RFOs: 6 of 22 (27.3%);
- Policy makers: 2 of 17 (11.8%);
- Library and infrastructure provider: 0 of 1 (0%)

The excerpts relating to the funding period revealed different approaches by RPOs and RFOs in discussing this element. In some cases, RPOs work on a yearly OA budget (e.g. Germany, Netherlands), which leads to stricter funding timeframes. In practice, this means that if the applicant is not successful in publishing the book within one year from the date of applying for funding, they have to apply for funding once again. RFOs, on the other hand, are generally more flexible and accept funding applications after the project has ended, either within a certain number of years or without time limitations. Nevertheless, there can be nuances in their requirements and timeframes. While some require applicants to include the expected publication budget in their initial proposal, other RFOs follow a stricter timeframe, possibly due to new policies being tested or budgets not being allocated over longer periods.

Consider the following three excerpts relating to the funding period listed below.

- **Example 1:** “At the latest, an application should be submitted as soon as negotiations with a publisher are initiated. (...) The date of the application is decisive for the order of funding. The funding approval is valid for a period of 12 months. If the publication has not been published by the end of this period, a new application for funding must be submitted.” (HU Berlin 2021)
- **Example 2:** “Monographs resulting from an SNSF-funded project can be submitted even after the end of the project by either the grantees themselves or by members of the project team; this is an open-ended option without any time limitation.” (Swiss National Science Foundation 2023)
- **Example 3:** “We will also provide open access funding when a research grant has ended.” (Wellcome Trust 2024).

From these excerpts, we can learn several important lessons. First, clarity and specificity are key. A well-expressed policy should clearly specify the timeline for application and publication. This is exemplified in Example 1 from the SNSF, which clearly states that monographs resulting from SNSF-funded projects can be submitted by grantees or project team members, even after the project has ended, without any time limitation. On the other hand, ambiguous phrasing, as seen in Example 3 from Wellcome, can lead to confusion and inconsistencies in the implementation of the policy. Relatedly, when developing policies, it is crucial to consider various scenarios that may arise. This is exemplified by Example 2 from Humboldt University, which does not specify, who the funding criteria apply to and, therefore, does not address the potential scenario of visiting researchers who may no longer be affiliated with the institution at the time that renewed application is required. Such omissions can create uncertainties in policy implementation, whereas

providing guidance on how to handle different scenarios can anticipate potential situations and make policies more comprehensive and effective. Finally, policies should set realistic timelines for the application and publication process, taking into account factors, such as lengthy peer review processes.

In the annotated EU funding grant agreement directed at EU funding programmes 2021-2027 (EC 2024) there is no mention of this in the OA section, or when specifically mentioning exceptions for publication costs in the general grant agreement clauses for eligible costs.

Compliance and enforcement

The compliance and enforcement policy element category includes four policy elements:

Compliance monitoring, incentives for compliance, disincentives for non-compliance, and exceptions

Compliance Monitoring

Mechanisms by which adherence to the OA policy is assessed and verified, ensuring that authors and institutions fulfil the stipulated requirements.

Of the 113 collected policy documents that mentioned books explicitly, 63 (55.8%) mention compliance monitoring. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 40 of 73 (54.8%);
- RFOs: 12 of 22 (54.6%);
- Policy makers: 11 of 17 (64.7%);
- Library and infrastructure provider: 0 of 1 (0%)

RFOs employ diverse strategies to monitor policy compliance, leveraging various systems and tools. Some, like the FWF and Wellcome Trust, integrate compliance checks into their final grant reporting processes. Others, such as the Research Council of Lithuania, utilise research portals or institutional repositories to verify the presence of book or chapter entry records. UKRI takes a more structured approach by explicitly mandating research organisations to fulfil specific reporting requirements.

- **Example 1:** “The FWF carries out annual monitoring of compliance with the Open Access Policy and publishes the results online. Open Access activities and compliance with the Open Access policy must be documented in the final project report to the FWF. This is done by means of a persistent identifier that can be used to view, read and download the full text of the publication (FWF 2023)
- **Example 2:** “We monitor research publications authored by our funded researchers to make sure they comply with our policy. We do this when researchers apply for funding, and when they submit their end-of-grant reports.” (Wellcome Trust 2024)
- **Example 3:** “Project implementers shall report on the compliance with the Guidelines and/or any legal or technical barriers preventing the implementation of the Guidelines in the interim and/or final reports of the projects, specifying the location of the scientific publications and/or the data in the repositories, the metadata, the embargo periods (if

applied), and other related relevant information.” (Research Council Of Lithuania 2016)

RPOs monitor compliance with the policy by comparing the repository content relative to what has been recorded by services indexing and through data on the use (access and downloads) per publication/ department/unit/ institute etc [University of Crete, University of Latvia, University of Malta] and specify who is responsible for monitoring or play a supervisory role e.g. the Helmholtz Open Science Office, the Vice-Rector for Science (e.g. Jan Kochanowski University in Kielce), The Department for Science and International Relations (e.g. Alecu Russo Bălți State University, Republic of Moldova), the rector magnificus itself (e.g. University of Twente), also an assigned/dedicated person for open access monitoring (e.g. Open Access Representative/Delegate/Coordinator) or the university library (e.g. University of Malta). In most cases all responsible bodies will produce an annual report to the Senate, to the Research Committee, the Vice Chancellors’ Executive and external bodies as required by funders [Open University, UK].

- **Example 4:** “The Library shall monitor policy compliance by comparing the content in OAR@UM against information gathered from indexing services and undertake the necessary background checks to determine the status of peer-reviewed material submitted for inclusion in OAR@UM, in the light of any relevant copyright terms and agreements.” (University of Malta 2021)
- **Example 5:** “The OA team will provide quarterly reports to Directors of Research and Heads of Schools on open access compliance. The OA team will work closely with Schools to identify any potential risks of non-compliance and provide the opportunity to identify further supporting mechanisms to help researchers achieve open access.” (University of St Andrews 2023)

The following examples illustrate the diverse strategies that national policymakers are employing to monitor OA compliance and progress. They showcase a range of approaches, from developing collaborative monitoring mechanisms and leveraging existing research information systems to creating national dashboards for tracking progress.

- **Example 6:** “The compliance with the Open Science Policy will be monitored through
 - a. Monitoring Mechanism that will be developed in collaboration with the National Research Funding Organisation of Cyprus (Research and Innovation Foundation), in relation to the publicly funded research; b. periodic reports submitted by the research organisations; c. data and information extracted by the repositories (national, thematic, institutional etc) by measuring the amount of repository content by institution, discipline and year. Funders should take appropriate measures for policy non-compliance from beneficiaries.” (National Policy of the Republic of Cyprus for Open Access to Scientific Information 2022)
- **Example 7:** “...unified monitoring mechanism for the effectiveness of the implementation of open access principles by higher education and research institutions through the further development of the Ukrainian Research Information System (URIS) by 2026, and Ministry of Education and Science, National Academy of Sciences (upon agreement), National specialised academies of science (upon agreement) are responsible for implementation.” (Ukraine National Open Science Plan 2022)
- **Example 8:** “G4.1 Set clear baselines and appropriate domain targets for open access,

including establishing criteria for monitoring open access at the national level. National monitoring will promote transparency, enable progress to be tracked, and allow for the identification of gaps and targeted interventions to ensure equity in terms of access to open access publishing options. [...] A6.2.1 Develop a monitor for open access at the national level, initially through pilot reports and a national dashboard to publish, analyse and track progress towards 100% OA.⁵¹ As part of open access monitoring, agree a national definition of OA and analyse overall costs to the national research system. The monitoring service will be driven by community requirements and draw on open data and tools wherever possible, including institutional sources identified under Action 3.1. ; [2023-2024] (National Action Plan for Open Research - Digital Repository of Ireland 2022)

Some countries provide clear plans for open access monitoring based CRIS system data or through dashboards built on the OpenAir Monitor.

One should point out that various policy monitoring mechanisms may well exist, but are not explicitly specified in policy documents.

In the annotated EU funding grant agreement directed at EU funding programmes 2021-2027 there are no OA-specific compliance monitoring methods mentioned, but there is an entire chapter on the "CONSEQUENCES OF NON-COMPLIANCE" (p.262).

Incentives for Compliance

Positive motivations or benefits offered to authors and institutions who adhere to the OA policy.

Incentives for compliance are an essential component of policies, designed to encourage and reward adherence to OA practices and ultimately to promote the widespread adoption of OA among researchers and institutions. By offering tangible benefits and recognition for OA compliance, policymakers, RFOs, and RPOs aim to create a supportive ecosystem that values and prioritises open dissemination of scholarly work.

Of the 113 collected policy documents that mentioned books explicitly, 26 (23%) include incentives. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 13 of 73 (17.8%);
- RFOs: 5 of 22 (22.7%);
- Policy makers: 8 of 17 (47.1%);
- Library and infrastructure provider: 0 of 1 (0%)

Funders can include open access requirements to scientific publications as a condition (evaluation criterion) for approving research projects (Romanian Ministry of Science, Wellcome Trust, VolkswagenStiftung) or funding renewals (Wellcome Trust). OA requirements can be used for research evaluation in general.

- **Example 1:** "Only when Wellcome funded researchers have ensured their research

publications resulting from current or previous grants are compliant will we: issue formal notification of any funding renewals or new grants, or accept new grant applications from the researcher" (Wellcome Trust 2024)

- **Example 2:** To shape open science based on the principles mentioned, Helmholtz will: (...) recognize and value the use of open science practices in the context of the evaluation of research performance (research assessment) and provide incentives for open science practices (open access , Open Research Data, Open Research Software as well as infrastructures and services). (Helmholtz-Gemeinschaft 2022)

Similarly, RPOs can incorporate OA practices into their internal evaluation and promotion processes, which may serve as an incentive for researchers to engage in OA publishing. Here are two examples demonstrating how RPOs integrate such incentives into their policies:

- **Example 3:** "Open Access publishing and the editorial and review activities in open access publication media are identified in TU Wien's intellectual capital report and are taken into account in particular when evaluating research performance, above all for habilitation and appointment procedures." (Vienna University of Technology 2018)
- **Example 4:** "For purposes of individual or institutional evaluation of the research output of the institution and its members, the University of Latvia will only consider as publications those whose metadata and full texts are deposited in the institutional repository according to the requirements stated above." (University of Latvia)

In the annotated EU funding grant agreement directed at EU funding programmes 2021-2027 there are no OA-specific compliance monitoring methods mentioned, but there is an entire chapter on the "CONSEQUENCES OF NON-COMPLIANCE" (p.262) which lists many types of implications for not following the requirements set out in the agreement.

Disincentives for Non-Compliance

Consequences or penalties for authors or institutions who do not follow the OA requirements, discouraging non-compliance.

Disincentives for non-compliance, which may include consequences or penalties for authors or institutions failing to meet OA requirements, can serve as a powerful tool to encourage adherence to policy mandates. By establishing clear repercussions for non-compliance, stakeholders underscore the importance of OA and create a strong incentive structure to support its widespread adoption. Disincentives can range from financial penalties and funding restrictions to impacts on career advancement and institutional evaluations. However, the implementation of disincentives requires careful consideration to balance enforcement with flexibility, recognizing the diverse challenges authors and institutions may face in the OA publishing landscape.

Of the 113 collected policy documents that mentioned books explicitly, 7 (6.2%) include negative consequences for non-compliance. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 0 of 73 (0%);
- RFOs: 5 of 22 (22.7%);
- Policy makers: 2 of 17 (11.8%);



- Library and infrastructure provider: 0 of 1 (0%)

RFOs mention a number of measures within this policy element. They could reduce current funding (FNR) if a grant-holder fails to comply. Some funders, such as FCT, NWO, Research Council of Lithuania, and Wellcome, might suspend current funding or hold the last/final instalment. For repetitive non-compliance, funders like FNR might temporarily suspend new grant applications. Other funders (FWO, UKRI) take compliance into account while evaluating the final scientific report. This often involves registering the publication through a dedicated research portal or reporting system. Sanctions can also apply to the whole organisation if a number of researchers from this organisation do not comply with the policy, the funds can be put on hold. In such cases, before taking any action to reserve the funds, the funder can send a warning letter or tries to resolve the issue with the organisation by correspondence first.

Some RPOs are using open access publications as well as other open science activities as evaluation criteria of the research performance of both the institution as a whole, and of each staff member. It can be considered as one of the requirements in recruitment and all “in house” evaluation procedures like designation, promotions, grant applications (e.g. doctoral grant). This type of formulation was also found within national OA policies, e.g. The updated Swiss National Open Access Strategy (2024) includes the following: *“To support the OA transformation, research assessment practices in recruitment and career advancement as well as in project funding must be broadened to include criteria that encourage open access and are in line with a given research community’s understanding of academic quality”*. Non-compliance can be used against the researcher during the evaluation/promotion/designation processes, etc. as some RPOs stated that they will only consider publications whose metadata and full texts are deposited in the institutional repository.

In general one can say that some funders provide sanctions as a mechanism for non-compliance, RPOs focus on research/researcher evaluation as an incentive for publishing in OA.

For documents issued by a policy makers (Plan/Framework) the older version use more general terms, pointing to certain direction, e.g. setting up a *Monitoring Mechanism or Platform*. The newer version provides more details, just because the Monitoring Mechanism is already established, e.g. Cyprus, Portugal. Also, in terms of the Slovakian Open Science Plan, the first version did not explicitly mention books, but the newer version did.

In the annotated EU funding grant agreement directed at EU funding programmes 2021-2027 there are no OA-specific compliance monitoring methods mentioned, but there is an entire chapter on the “CONSEQUENCES OF NON-COMPLIANCE” (p.262) which lists many types of implications for not following the requirements set out in the agreement. These include rejection of costs or contributions, beginning a payment review procedure and possibly beneficiary termination.

Exceptions

Specific circumstances or scenarios where certain rules or requirements might not apply, offering flexibility to authors and publishers.

The Exceptions element outlines specific circumstances where a policy’s standard OA requirements may not apply to authors and publishers. Understanding these exceptions is crucial due to their significant variety and implications for OA implementation. Exceptions may serve multiple purposes: they may temporarily or permanently release stakeholders from OA obligations under



specific conditions, acknowledge discipline-specific publishing practices, or provide flexibility in challenging situations.

Of the 113 collected policy documents that mentioned books explicitly, 72 (63.7%) include exceptions. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 48 of 73 (65.8%);
- RFOs: 16 of 22 (72.7%);
- Policy makers: 7 of 17 (41.2%);
- Library and infrastructure provider: 1 of 1 (100%)

RPOs whose policy documents include exceptions to making the full texts of scholarly outputs available Open Access (usually this concerns acknowledging a publisher's embargo period prior to publishing OA by the Green route, through repository publication) tend to allow publishing contracts to take precedence over institutional OA policies.

Sometimes mentioning books as an exception offers less clear a path towards OA for these scholarly outputs as compared to journals. For example:

Example 1: "Academic and scientific publications are articles and papers in academic journals, series, books and conference publications, independent works as well as master's, licentiate and doctoral theses. Whenever possible, the University's guidelines must also be followed when publishing academic monographs" (University of Helsinki 2023).

Other policy documents that mention exceptions involving books endeavour to enable Open Access publication where otherwise it would not have been available. For example:

Example 2: If you're thinking of publishing a monograph or book chapter with a publisher that doesn't have an open access option, please email openaccess@wellcome.org. We'll work with you and the publisher to see if it's possible to publish your work open access (Wellcome Trust 2024).

Exceptions that differentiate between the situations of researchers in different disciplines or working under certain conditions can build adaptability into Open Access policies or strategies.

Example 3: To realise an inclusive system of infrastructure and incentives for open access, differences in publication culture between disciplines should be accounted for and supported, with implementation guided by overarching principles of equity and collective benefit (National Action Plan for Open Research - Digital Repository of Ireland 2022).

For publishing Open Access books, an embargo period can be in place. Since the embargo period is not always a consistent length of time across all scientific disciplines, exceptions in policy documents can also recognise that different lengths of embargo period can apply which means that exceptions to immediate OA can exist.

Policy documents call for immediate OA on publication and with a 0 embargo where possible but if exceptions are necessary, it is advisable to stipulate the period of time that the organisation allows an embargo to last.

Example 4 [translated]: "open access to publications resulting from publicly funded research must be granted as soon as possible, preferably at the time of publication and in

any case no later than six months from the date of publication (no more than twelve months in the case of the social sciences and humanities).” (Framework for the Development of Open Science in Romania 2022).

However, exceptions also exist that prevent faster OA, with one RPO policymaker making an exception to extend embargoes if institutional management agrees.

Following European legal practice, several policymakers mention a range of conditions that may impinge upon realisation of the policy. Although they are recognisable, they are not uniform, but include, legal, financial, technological or structural reasons, privacy, political sensitivity, security, technical feasibility, ethics, budget, commercial opportunities (patents, spin-offs etc.) and contract research. For example,

Example 5: “Open Science is handled in accordance with legal framework conditions, for example on data protection, foreign trade law, the protection of persons and personal rights as well as intellectual property and other asset rights. Ethical issues and any contractual obligations must also be taken into account (University of Konstanz 2021).

One policymaker recognises the complexity and deals with exceptions on more of a case-by-case basis, becoming less lenient over time as authors become accustomed to the policy. Another policymaker provides guidance with a “protocol for alternative options” if authors cannot comply due to a current contract.

Some exceptions defer to publisher policy when that policy disallows Open Access publication. Publisher contracts and copyright is the most frequent topic that features in exceptions to enabling OA to publications. Instead of demanding Open Access publication of scholarly outputs (whether immediately or after an embargo period) or full-text deposit in the institutional repository, some policy documents require bibliographic information or abstracts or for some repository submitted scholarly outputs to be closed in exceptional circumstances.

Some policymakers state exceptions and require justifications to ensure that exceptions to enable OA are not exercised too lightly, although this is not a frequent practice, e.g.

Example 6: “As an exception, in duly justified cases and upon explicit acceptance by the FNR, a publication may be published under the Creative Commons CC BY-ND 4.0 license (FNR 2023).

One RPO policymaker allows authors to opt out of their policy altogether.

The annotated EU funding grant agreement directed at EU funding programmes 2021-2027 provides an interesting example of how exceptions can be applied in extraordinary circumstances. While it does not contain general exceptions to OA requirements, it does include specific provisions for public emergencies: (EC 2024, p. 379)

“If the public emergency provisions apply and can be activated on request of the granting authority (...) the requirement regarding immediate open access is extended beyond publications, i.e. to any research outputs as follows: – Beneficiaries must immediately deposit any research output in a repository and provide open access to it under the latest version of a CC BY licence or having released it via a Public Domain Dedication (CC 0) or equivalent.”

This policy is noteworthy for several reasons. First, it extends OA requirements beyond publications to all research outputs during emergencies. Second, it emphasises immediate access,



highlighting the urgency of information sharing in crisis situations. Finally, it specifies the use of CC-BY or CC0 licences, ensuring maximum reusability of the research.

However, the policy also includes an exception clause: (EC 2024, p. 379)

“As an exception, if providing open access would be against their legitimate interests, the beneficiaries must grant non-exclusive licences — under fair and reasonable conditions — to legal entities that need the research output to address the public emergency and commit to rapidly and broadly exploit the resulting products and services on fair and reasonable”

This approach to exceptions in emergency situations illustrates a unique application of OA policy exceptions, differing significantly from common exceptions that address routine challenges like embargo periods or disciplinary practices.

Policy Management and Alignment

Policy Review Schedule

Regular intervals or timelines at which the OA policy undergoes evaluation, updating, or revision to ensure its relevance and effectiveness.

The regular review and update of policies ensure they remain relevant and effective. This practice allows for the integration of new developments, lessons learned, and emerging best practices in the field of open access. By incorporating clearly defined review periods, organisations demonstrate their commitment to maintaining up-to-date and responsive policies and provide transparency and predictability for stakeholders affected by their policies. However, our analysis suggests that the inclusion of a policy review schedule is an important yet often overlooked element.

Of the 113 collected policy documents that mentioned books explicitly, 16 (14.2%) include a policy review schedule. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 12 of 73 (16.4%);
- RFOs: 1 of 22 (4.6%);
- Policy makers: 3 of 17 (17.7%);
- Library and infrastructure provider: 0 of 1 (0%)

National policymaker policies are more long-term in terms of review, with periods ranging from three (Ireland) to five years (France, Cyprus).

The RFO in Lithuania emphasises the need for the interim evaluation of impact, progress achieved and adjustment of the policy document in two years. RPO policies involve review mainly every two-three years and update whenever necessary (75%). Two documents are subject to revision once a year or even more often depending on the need, changes (extension, restriction) or recommendations of the interim or annual evaluation reports. Only one university policy mentions the review every five years or if necessary.

Overall, policies are quite similar in how they express this and there is no noticeable evolution in its formulation over time.

This is an example of a policy that contains the review period and identifies responsible parties representing different stakeholders:

Example 1: “The University Library will be responsible for coordinating a review of this policy every two years with the participating central institutes and committees to evaluate its validity in order to adapt it to new challenges, developments in infrastructure, and the needs of researchers” (Free University of Berlin 2021).

Another example of revision and update based on annual monitoring compliance:

Example 2 [translated]: “... will be revised depending on the need, changes (extension, restriction) or recommendations of the interim or annual evaluation reports” (B.P. Hasdeu Municipal Library 2020).

The annotated EU funding grant agreement directed at EU funding programmes 2021-2027 is valid for 2021-2027 based on the info on the cover page, so it can be assumed that an updated version will be provided when this one expires (EC 2024).

Policy Licence

Indicates whether the policy document itself is released under a specific licence that governs how the policy text can be used, shared, and modified.

During our review of OA policies, we observed varying practices regarding the licensing of the policy document themselves. While not immediately impactful for the policy itself, it can facilitate alignment and collaboration among organisations. When policies are released under specific open licences, it allows different actors to easily and legally re-use and remix existing policies. For the future, it would also facilitate flexible use of resources such as the Knowledge Base produced in this project where entire policies or parts thereof could be used flexibly to assist the formulation of future policies.

Of the 113 collected policy documents that mentioned books explicitly, 14 (12.4%) had an explicit licence attached to them. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 4 of 73 (5.5%);
- RFOs: 2 of 22 (9.1%);
- Policy makers: 8 of 17 (47.1%);
- Library and infrastructure provider: 0 of 1 (0%)

The policies were issued in the span of 2015-2023 with the following distribution across licence types:

2 CC-0, with 1 of them having separate CC-BY for select images

8 CC-BY



2 CC-BY-SA

1 CC-BY-ND

1 CC-BY-NC-ND

The annotated EU funding grant agreement directed at EU funding programmes 2021-2027 is not openly licensed and thus does not contain this policy element (EC 2024).

Plan S

Any mention of Plan S within the policy document

Plan S launched in 2018 with its mandate for participating research funders to require Open Access publications for scientific outputs that result from research funded by public grants, starting in 2021. Participating funders include national research funders, European and international organisations, and charitable foundations; altogether, they form cOAlition S (About Plan S, n.d.).

PALOMERA identifies policy documents that mention either Plan S or cOAlition S since this Open Access initiative has been effective in promoting the transition to open practices. Although Plan S initially stated that the path to Open Access publication for books must be separate from that for journals and will take more time to accomplish (Principle 7), cOAlition S released recommendations on how funders can implement Plan S for academic books in 2021 (Plan S Principles, n.d.).

When policy documents do mention Plan S, it is typically to demonstrate alignment with this international Open Access initiative. The sampling in these policy documents shows that mentions of Plan S do not always extend to Open Access policies for books.

Of the 113 collected policy documents that mentioned books explicitly, 20 (17.7%) reference Plan S. The distribution of policies, as a proportion of each stakeholder group's total policy documents, was as follows:

- RPOs: 6 of 73 (8.2%);
- RFOs: 6 of 22 (27.3%);
- Policy makers: 8 of 17 (47.1%);
- Library and infrastructure provider: 0 of 1 (0%)

Certain national policymakers take the opportunity to describe the importance of the network:

Example 1: “Furthermore, under the name Plan S, a strategy already exists to promote free access to scientific knowledge that has been developed with public funds. This strategy, developed by the association cOAlition S, is supported by 18 national and international research funding agencies, as well as the European Commission and the European Research Council. The Austrian Federal Government actively supports the projects of Plan S. The principles are to be implemented step by step by all universities and universities of applied sciences.” (Austrian Policy on Open Science and the European Open Science Cloud 2023).



Among policymakers, mentions of Plan S correlate with a national funder's membership in cOAlition S or with being a Supporter of Plan S. Mentions of Plan S by national policymakers sometimes point directly to the role of funding organisations in certain policy areas, such as:

Example 2: "Funding organisations play an important role in clarifying usage rights and strengthening the negotiating position of authors. An example of this is the Plan S 'rights retention strategy.'" (German Science and Humanities Council 2022).

Research funders can state their support for cOAlition S and its principles whilst clarifying what it stands for:

Example 3: "FCT has joined Plan S, promoted by cOAlition S and supported by Science Europe. By joining, FCT has bound itself to the objectives of this initiative, which are to ensure that all publications resulting from research funded by institutions adhering to this initiative are published in open access journals or platforms, or made available through open access repositories without embargo. This requirement is also imposed by national legislation, namely Council of Ministers Resolution 21/2016." (Fundação para a Ciência e a Tecnologia 2023).

Because cOAlition S comprises research funders, the university libraries or RPOs that mention Plan S do so to bolster their own practice and policy and shows evidence of other supportive policies, e.g.

Example 4 [translated]: "The transformation of the conventional scientific publication system under the guiding principle of Open Access is promoted by numerous science policy and funding strategy initiatives such as: Berlin Declaration on Open Access to Scientific Knowledge; Open access policies of research funding institutions, scientific societies and universities; Open Access Strategy Berlin; Plan S." (Open-Access-Strategie des Landes Brandenburg 2019).

The date range of policy documents that mention Plan S is 2019-2023. The three earliest policy documents that mention Plan S (3), dating from 2019-2020, are from an RPO and RFO from the Netherlands and a policymaker in Germany. The publication year with the most mentions of Plan S is 2022 (9). Prior to 2022, the only countries whose policy documents mentioned Plan S were Germany, the Netherlands, France and Moldova.

There is a split between policy documents that mention cOAlition S (6), those that mention Plan S (8), and those that mention both (6). There usually does not appear to be an important semantic difference between mentioning cOAlition S and Plan S. The only stakeholder group for which the distinction between Plan S and cOAlition S seems to have an influence on the meaning of their policy documents is RPOs. Unlike documents from policymakers and funders, documents from RPOs mention either Plan S (4) or cOAlition S (2), not both. In this case, cOAlition S is always mentioned to show alignment between RPO and national funder policies, while Plan S is invoked either to describe how the OA policy of the RPO aligns with Plan S or to show that RPO policy aligns with the national funder.

In the context of explicitly books, mentions of Plan S can be used to reinforce requirements to publish publicly-funded research open access, especially in policies of organisations that support Plan S or are members of cOAlition S. For example:

Example 5: “The Research Council of Norway’s guidelines for open access to academic books complies with the principles of cOAlition S” (The Research Council of Norway 2022).

Mentioning Plan S with regard to Open Access for books can be done very explicitly and is used to support an RPO’s policy, as here:

Example 6: “Plan S makes Open Access mandatory for books, but also acknowledges that the possibilities are still limited. The major European science funders follow the guidelines of Plan S. The NWO stipulates that Open Access for books, bundles and chapters that are the result of NWO funding, are mandatory” (Erasmus University Rotterdam 2021).

It is important that policies for Open Access books do not conflate transformative agreements with book publication because transformative agreements relate only to journals. Some policy documents do mention Plan S when supporting the organisation’s investment in transformative agreements.

Policy mentions of Plan S may also invoke and emphasise other aspects of open access publication that the Principles of Plan S cover. For example, four policy documents mention Plan S in conjunction with requiring a rights retention strategy to empower authors in copyright negotiations with publishers (Principle 1):

Example 7: “The SNSF does not accept any embargo periods for articles. For books and book chapters, a period of 12 months is permissible. So that researchers are not restricted by publishers in the use of their own content and can meet the OA obligation, the SNSF has introduced the Rights Retentions Strategy developed by cOAlition S” (Swiss National Science Foundation 2023).

Invoking Plan S for this purpose is also seen in policies of RPOs that belong to countries whose national funder/s are supporters of Plan S or members of cOAlition S. For example:

Example 8: “The Swiss National Science Foundation SNSF, like many other funding agencies (cOAlition S), requires that publications resulting from projects it funds (project submission as of January 2023) be published with a CC license.” (University Library of Bern 2022).

The annotated EU funding grant agreement directed at EU funding programmes 2021-2027 does not contain mentions of Plan S or cOAlition S (EC 2024).

Summary

The aim of the policy analysis was to provide a comprehensive overview of the current landscape of OA book policies, offering both a broad overview and an in-depth examination of specific policy elements and their formulations within the policies. Our approach, which combined mapping policy elements across all collected OA policies with a detailed excerpt analysis of OA book policies, proved effective in achieving this objective.

Our analysis revealed an anticipated disparity in the prevalence of OA policies between books and journal articles, with book policies being notably less common among the organisations for which we collected documents. However, an interesting finding was that where OA book policies were in place, they were almost as comprehensive in terms of policy elements covered compared to their journal article counterparts.

Moreover, the analysis indicates a lack of well-established practices for OA models to support, funding mechanisms, funding timeframes, and most other policy elements as well. The considerable variability in how policies address these topics underscores a significant opportunity for alignment. And yet, it is important to recognize that policy alignment alone is insufficient to drive comprehensive change. To create an enabling environment, this harmonisation needs to be coupled with a holistic approach with innovation in publishing practices, business models, and infrastructure development.

A key insight from this analysis is the importance of clarity and precision in policy formulations as vague and ambiguous language obscures the practical implications of the policy. Policies that include numerous elements but lack clarity in their descriptions may be less effective than more focused policies that offer precision and detail within their scope.

3.5 Interview analysis

This section is based on the PESTLE analysis of the interviews (39 individual interviews and three group interviews for 36 ERA countries and all stakeholder categories) in combination with the tags concerning challenges and facilitators. The analysis of the higher level themes of the coded text segments resulted in a comprehensive review of the core barriers and enablers in OA book policy development. Figure 25 displays the final split between positive and negative factors. It is worth repeating here that not all segments that were tagged with a PESTLE tag in the initial step received a positive or negative tag, the ones who did not strongly enough convey any direction were attached a neutral tag.

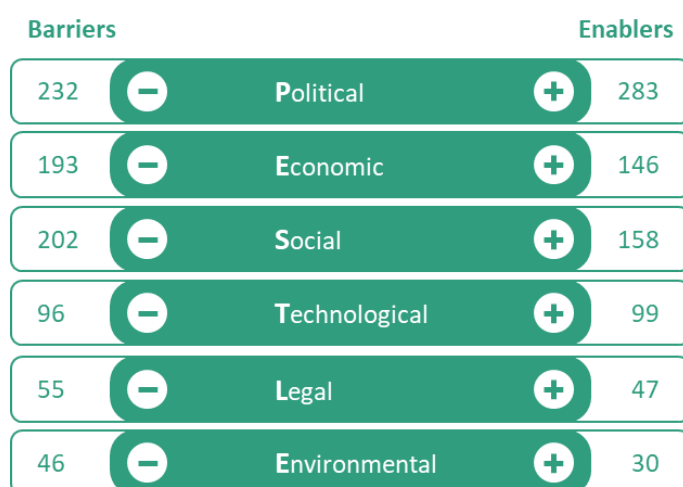


Figure 25 - Number of barriers vs enablers identified in the interviews

This analysis is split into two main sections, one for barriers and one for enablers.

Barriers in policy development

In this section we present the identified themes that were generated by reviewing the 811 PESTLE tags marked as negative from the interviews and manually sorting the interview extracts related to the tags into thematic groups through an iterative process. Figure 26 presents the final result in descending order of frequency. In the following subsections, we provide detailed descriptions and textual examples from the interviews for each barrier, presented in the same order.

Theme	Number of extracts	
Funding resources	103	<div></div>
Policy existence	70	<div></div>
Coordination (national)	57	<div></div>
Publishing traditions	55	<div></div>
Awareness	51	<div></div>
Incentives	49	<div></div>
Infrastructure	41	<div></div>
Recognition	41	<div></div>
Policy effectiveness	36	<div></div>
Funding regulation	34	<div></div>
Quality concerns	32	<div></div>
Publisher's unreadiness	30	<div></div>
Definition issues	29	<div></div>
Licence adoption	26	<div></div>
Changing landscape	24	<div></div>
Technical issues	21	<div></div>
Coordination (institutional)	18	<div></div>
Copyright transfer	18	<div></div>
Articles vs books	15	<div></div>
Prestige	14	<div></div>
Visibility	12	<div></div>
Environmental impact	10	<div></div>
Policy renewal	8	<div></div>
Bureaucracy	7	<div></div>
Language	7	<div></div>
Coordination (international)	3	<div></div>

Figure 26 - Identified barriers from interviews, sorted in descending order of occurrence frequency

Funding resources

During the interviews, funding resources (or the lack thereof) emerged as the most significant hindering factor in the development and implementation of OA book policies as many institutions and countries lack dedicated funds for OA book publishing (Extracts 1-3).

Extract #1: "...only a small amount of monographs and chapters are funded by the research council..." (Norway, stakeholder type - RPO)

Extract #2: "...open access is not yet, it is not adequate to the financial resources..." (Poland, RPO)

Extract #3: "...it's also one of the barriers for the researcher to publish their research output, their article or open access book, whatever ... as an institution we don't have any transformative agreement. We don't have any support for open access publication. We don't have any budget." (Turkey, library)

Even where research grants are available and incorporate publication costs, they sometimes allocate insufficient amounts to cover the full expenses of publishing an OA book (Extract 4).

Extract #4: "So if we talk about books published by Croatian authors, there is funding available not from the ministry, but from the Croatian Science Foundation. So they are the main funder of research in Croatia. And they do have some, if you apply for a grant, for a research grant, you can claim a certain amount for open access publications. And they don't say if that is for books or for journals. Just publication ... And I think that it is insufficient for a typical BPC with a known publisher. So they generally, when you compare that to other national funders, they really have low the cost, not the cost, but the expenditures that they cover are lower than elsewhere. So it's not... It has to be a part of a grant. It's not like they have a specific fund It's just within the grant, for a research grant. And it probably can cover chapters in open access books. But for instance, for an Open Access monograph, it would probably be insufficient." (Croatia, RPO)

Severe budget constraints necessitate reliance on project-based funding, such as European grants, which makes it challenging for institutions like Croatian libraries to justify and sustain long-term financial support for OA book publishing, especially when faced with competing priorities such as accessing subscribed literature or purchasing print books (Extract 5).

Extract #5: "Well, it would be difficult for Croatian libraries to justify such form of spending, first, because we are all underfunded ... the other thing, ... they are financed mostly not from the budget, from the state budget or from the members, but from the European funds through project grants ... They cannot justify spending something. So at the moment, it's very difficult." (Croatia, RPO)

The funding situation becomes even more complex for books published in languages other than English, where the limited market size further compounds the financial challenges (Extract 6).

Extract #6: "...a quite large portion of those scholarly books published in Hungary are in Hungarian. The Hungarian language has a very limited market. While in English, of course, you can sell the book everywhere in the world if it is sold. But in Hungary, there is very limited market for scholarly books, and this is, of course, a problem..." (Hungary, library)



Adding another layer of complexity, disciplinary differences in research costs significantly impact the perception and feasibility of OA book funding. STEM fields, typically accustomed to high research expenses, may find OA publishing fees less daunting. In contrast, Humanities and Social Sciences, where research usually incurs lower costs, may perceive these fees as more challenging to justify and secure (Extract 7).

Extract #7: "For the people in the humanities and in social sciences paid open access, APC and BPC-based open access, is not affordable. I wouldn't say that they have prejudices against this, but it's something they don't think about because they can't afford it." (Serbia, RPO)

Policy existence

The lack of established OA policies on the national and institutional level was mentioned as a prominent hindering aspect, creating a fragmented landscape where stakeholders operate without clear guidance (Extract 1 and 2). Where policies do exist, they often focus on journal articles, overlooking the unique challenges of book publishing (Extract 3).

Extract #1: "No, there isn't any policy. There were two laws initiated by the state in 2014, if I recall correctly, in 2017, which referred to the conditions for open access publishing and connected it to funded research and various other resources in education, etc, etc, But beyond that, there is nothing..." (Greece, RPO)

Extract #2: "To be honest, there is no policy for books on national scale. I know that some universities have very much encouraged publishing in open access with some means of supporting, for example, from some university funds, the books, and this can be a prerequisite to support them so that they should be open. But no, on a national scale, there is no policy." (Estonia, RFO)

Extract #3: "not for books, no. We have rules for open access, and now it's only been quite recently that there is actually some political pressure to gear up our percentages of open access to research output, but it always qualifies to scholarly articles and not to books. The same we have laws quite similar to the ones in the Netherlands that have secondary publishing rights for our accepted manuscripts, but it applies to articles, not to books" (Belgium, RPO)

This absence of comprehensive policies leads to ambiguity, inconsistency, and a lack of standardisation across the field. Without clear policies, there are no established funding models (Extract 4) and limited incentives for authors (Extract 5).

Extract #4: "otherwise it is difficult to finance books. It would be good if there was something in a national policy on funding. And also with regard to the entire infrastructure, that more emphasis is placed on alternative forms of publishing and publication options." (Switzerland, RPO & library)

Extract #5: "For a different work, I started to find out what we have as a policy for open-access books. I didn't find anything. Some universities give the researcher money if they publish the book, but it doesn't matter if it is open or closed access. There is no incentive for open-access books." (Turkey, library)

Coordination (national)



The lack of coordination on the national level is a prominent hindering factor to Open Access book publishing. Despite the presence of ad hoc policies in some ERA countries, the lack of systematic discussion on the topic, as well as general efforts by the national government in coordinating the work of research institutions and centres in their territory, hinder the diffusion of homogeneous practices. The lack of a public discourse in some countries on the potentialities of Open Access practices is also noted as a powerful limitation.

Extract #1: "Now, we might hope that something like this will happen in the future, but at the moment it is not foreseen. We don't see any national policy coming. The [Institution 1] and different bodies do have open access policies which apply to books as well. But on national level at the moment, there is nothing." (Hungary, library)

Extract #2: "These communications, however, are rather disjointed, and I don't think they are very efficient. So on paper, if they want to tick the boxes, yes, they have a national thing, and they have contact persons and all of that. But I'm not aware of them really properly, efficiently contributing to any policy within any of the institutions in Romania." (Romania, RPO)

Extract #3: "I think the whole topic of open access is not that present in the public discourse in Germany. When talking about myself, I have to explain everyone what open access, mainly. It's not that there is some knowledge of what Open Access is, what Open Access means, and how this is interrelated with research paid by the taxpayers and in the public discourse. I just know one medium who is frequently publishing and talking about Open Access and that is the Frankfurter Allgemeine Zeitung, and sightings of the well-known one" (Germany, policy maker & RFO)

Publishing traditions

Interviewees mainly highlighted the preference for the print book among authors and readers as negatively impacting OA books, which the following examples illustrate.

Extract #1: "There is still a preference for printed books. It is often argued that it will remain, regardless of whether there are any system disruptions, changes to IT tools and so on." (Austria, policy maker & RFO)

Extract #2: "Many people can't imagine reading an excellently researched book digitally. Authors feel the same way. Many have a - let's call it conservative - basic understanding of their medium. And in certain areas, authors either want the printed version exclusively or at least primarily or also. And even if it is desired, it quickly becomes difficult to calculate, because of course this results in extra costs associated with printing, storage, distribution and advertising the product. In the case of hybrid publications, costs are incurred twice because there are two different publication channels." (Germany, publisher & policy maker)

Extract #3: "In the humanities, a printed book is still important, at least as a by-product. People like to have them in their hands, the codex form has stood the test of time for 2000 years." (Switzerland, RPO & library)

One more important issue mentioned is sending the mandatory copies of the print book to the national libraries but there is no comparable procedure for e-book preservation at the national level. In some countries, there is no national archive, and e-books are under threat of vanishing



from local institutional repositories and publisher websites with the passage of time or technology updates.

Extract #4: "If you publish something physically, you have to send a defined number of copies and you know that the national library will keep, for sure, a copy of your work, and it will send copies to some other libraries." (Bulgaria, RPO)

However, the significance of making the books openly available is obvious.

Extract #5: "Performing your research through books didn't invite research community to comment, or read, or be critical to your research output. Now, Open Access facilitates all this. Therefore it is very important to make books openly available." (Norway, RPO)

Awareness

A lack of awareness across stakeholder groups was frequently mentioned as a barrier in our interviews. For instance, there may be insufficient awareness among authorities about the benefits of open science practices for publicly-funded research and the necessity for harmonising the legal framework on copyright (see Extract 1). Moreover, limited university management involvement may limit the effectiveness of the open science strategies (Extracts 2 and 3). In addition, authors' lack of awareness about open science principles and open book publishing funding opportunities may impede progress (Extracts 4-8), but publishers play a vital role in this as well. (Extract 9); Finally, limited public understanding of publicly-funded research results and the specifics and the process of book preparation may present another obstacle (Extract 10).

Extract #1: "No, no, because there is no awareness among the public decision-makers of open access. In this part of the world, the so-called Eastern Europe, Eastern Bloc, the awareness about copyright is poor." (Serbia, RPO)

Extract #2: "This topic is not a top priority for the Vice-Rectorate Research." (Switzerland, RPO & library)

Extract #3: "It seems that open science is difficult, and it seems that few people want to stick their necks out and say anything at all. And I don't really understand why it's sensitive or why it's difficult or what the reason for that is. I think that this is the trend we are heading towards. And there's nothing controversial about the fact that we're going to do it, we know we're going to do it, then it's more about how it's going to be done." (Sweden, RPO)

Extract #4: "It feels like it is possible to say that at the moment it is easier not to publish openly because it requires a lot of knowledge to know how to apply for funding for any book process. You have to know how to factor it in and you have to know how to weigh publication prestige, CV issues against as well as what is appropriate given what you are about to publish." (Finland, policy maker)

Extract #5: "A lot of academics and colleagues of ours think that Open Access is only in the format of e-PDF or just one PDF, that's Open Access. They don't really get the logistics or what Open Access really means. They don't understand the legalistic framework of open access. Furthermore, they think occasionally a lot of people think that if you talk about open access, it means that you cannot sell it. They confuse and conflate open access with selling a book or a publication." (Greece, RPO)



Extract #6: "I think that if you, as a scholar, want to publish open access books, there are really ways to do it to get the funds. But maybe the problem is that not all scholars see the value of it." (Lithuania, RPO)

Extract #7: "Another problem is the lack of awareness among researchers regarding the benefits of open access and motivation and incentives for researchers and faculty staff to publish in open access as well as books or research article." (Moldova, RPO & library)

Extract #8: "Perhaps we also need to do a bit more public relations work. We need to reach out more to researchers and convince them of the benefits of OA, also with our products of course." (Switzerland, RPO & library)

Extract #9: "In this part of the world, the so-called Eastern Europe, Eastern Bloc, the awareness about copyright is poor. For example, we had to invest a lot of effort in training publishers to introduce policies defining copyright because they would say, Well, my journal is online, so anybody can use it. I don't restrict anything. We said, Okay, but you have to say this because if you don't say anything, it's restricted. All rights reserved are implied. It's still very difficult to explain this to them." (Serbia, RPO)

Extract #10: "People are aware about it in connection with articles, but it is not so much connected to books yet. Because as would probably know better, yes, it takes longer time to prepare a book, publish a book, and maybe people don't connect it so much with research, yes, that there is some research behind it." (Slovakia, RFO & RPO)

Incentives

The absence of robust incentive structures emerged as a major obstacle in the advancement of OA book policies. Many countries and institutions lack specific incentives or policies promoting OA book publishing (Extract 1 and 2). In addition, existing research assessment systems often favour journal articles over books (Extract 3) or may lead authors to prioritise prestigious publishers, even when such choices conflict with OA requirements or are financially unfeasible for many researchers, particularly those early in their careers (Extract 4).

Extract #1: "At the moment in research assessment, there is no preference for open access. This is something I hope we can change in the future, but at the moment there is no preference. In Humanities for your research career, you need to publish books, but there is no any rule that those should be made open access. If the author can find funding without the requirement of open access, then he or she can do so." (Hungary, library)

Extract #2: "Some universities give the researcher money if they publish the book, but it doesn't matter if it is open or closed access. There is no incentive for open-access books." (Turkey, library)

Extract #3: "It's more in terms of promotion and tenure and these kinds of things, it's better to write articles." (Netherlands, RFO)

Extract #4: "That's simply not possible for, especially to comply with open access. I mean, the costs are too big in any realistic sense. I've heard about some early career researchers who've been taking out bank loans and trying to get money together for that. There's no support within the university. I'm constantly asked for this. Is there any fund or any support and there isn't any. So it's a case of haves and have-nots. If you're funded, if you've got a



Horizon Europe project and it covers this thing, you're laughing, you can fork out a vast amounts to OUP or to Blue Brain or somebody like that and get your open access book.” (Ireland, RPO)

Infrastructure

Another obstacle to OA book publishing is the lack of a proper infrastructure, i.e. defined as any databases, online archives or repositories. The necessity to present the product of research, the book, in a certain format and in an open, accessible way, requires repositories or open archives which are not often priorly built. Another perceived limit is the technical and technological limits to what OA book publishers can do. Institutions sometimes lack the proper expertise to build and maintain large repositories and archives.

Extract #1: “I know that some people would like to, they would like to have some interactive books, dictionaries or something, but they have to take care of that on their own. There isn't established infrastructure for that” (Croatia, RPO)

Extract #2: “It would be desirable to bring these institutional or cantonal platforms together in a network in which there would be coordinated policies, information and services, and thus a more concrete exchange in everyday life. It would be possible for all researchers in Switzerland to publish books on these alternative platforms. And that brings us to financing.” (Switzerland, RPO & library)

Exact #3: “but we do have a problem with technical infrastructure because we don't have an employee with expertise in information technology. So we are, how to say, hired a firm to help us with programming and other things with OMP.” (group interview with libraries)

Recognition

Another hindering factor in the way Open Access books impact the scientific community relates to how they are recognized by the broader academic community. Books are evaluated differently as compared to journals. Scholars, and especially young scholars in need of building their careers, need to take this into account when being evaluated. The lack of consideration and recognition of Open Access and OA books negatively influences how young researchers and scholars in general approach and adopt publishing in Open Access.

Extract #1: “Interviewee 1: Yes, but the aspect, if they are open, accessible, or not, it doesn't play any big role in research assessment or in their career progress. Interviewee 2: It doesn't matter if it's open or closed.” (Slovakia, RFO & RPO)

Extract #2: “Maybe – In general, open access publications are not considered in the evaluation, any evaluation.” (Moldova, RPO & library)

Extract #3: “From my perspective, I am not sure that this chain of incentives reaches the researchers. It's sort of in the funding model so the organisations have incentives. But beyond that? You have to be principled to look after the best interests of the organisation as an individual employed researcher. But this is also linked to the researcher evaluation.” (Finland, policy maker)

Policy effectiveness



Policies on Open Access and on books publishing can encounter several hindering limitations. Despite the presence of numerous attempts to build dedicated policies, there can be issues. Problems, for the interviewees, can arise mainly from difficulties in intercepting the need of the market stakeholders, by a lack of monitoring of the policies or other difficulties in launching and maintaining ad hoc policies to sustain open access publishing.

Extract #1: "Well, I would say that you could also trust the market to develop sensible open access structures without having to do anything in any way through legal regulations. It would be possible, for example, to guide this through money flows. But you need an open access policy at the moment when you want to go in a certain direction. And that, I think, is the situation." (Germany, publisher & policy maker)

Extract #2: "And so that no one, no one from the entities, that is, whether it's officers, whether it's the state, whether it's the universities, whether it's the authorities, who has the responsibility, it's not to control, but it's to check whether it's actually going to waste that money or not. We have played with this money, whether we have achieved our intended result" (Poland, RPO)

Extract #3: "Not all of them came back positively about open access. There's still a long way to go to get full support from, I think, researchers on open access and also particular types of open access. Often, funders prefer the most open licence, which we find, particularly for HSS authors, isn't always the most popular. They prefer to have more restrictions on what people can and can't do with that content. Also, I think a few years ago, commissioning editors found the conversation with authors more tricky about open access." (UK, publisher)

Funding regulation

Besides the lack of dedicated funds for book publishing, the necessity for funding regulation become evident. The funding model or models should be prescribed in policies. The costs should be also regulated providing their clear architecture with regard to the type of publishing product.

Extract #1: "...we need the Ministry of Education and Research to come up with some active recommendation because there is such a little share of the monographs and anthologies that are funded by research councils. If we are going to achieve open access to books, we need some recommendation from the government and we need some funding model, I think, for make this happen." (Norway, RPO)

Extract #2: "Since the policies are built up as they are, jointly from the bottom up, no one has a mandate to say that you pay this much and you pay this much. So there is no funding model built into the policies. Since many of the academic publishers in Finland are published by small scientific societies and publishers with very tight margins, this funding issue is really the biggest one. It can be seen as indirectly against the policy because there is no funding model." (Finland, policy maker)

Extract #3: "A clear architecture of the system of funding does not exist. It's each on his own or on their own. Again, if you have your own research grant, then you will publish whatever you want, open access or not." (Romania, RPO)

Extract #4: "So we don't have examples of open access books, and we also don't have economic models for that yet." (Ukraine, RPO)



Extract #5: "...the business model is different with monographs. So, it's a little bit complicated, I think. I don't think that the next strategy in Denmark will make it mandatory that books should be open access." (Denmark, policy maker)

Extract #6: "For any book project, it might be necessary to collect funds from different sources. It could be the national funding agency, it could be the [Institution 1], it could be a grant for a research group... It's a problem. This is, again, a reason why the [Institution 1] policy allows embargo up to eight years, because it might be that some funding comes from the [Institution 1], some funding comes from somewhere else. The publisher has to comply with different rules and whatever. Also, it is a possibility that for a few years they might try to sell the book in order to recover some of the costs. We have to allow for this because the [Institution 1] is not rich enough to fund 100% all the books and then require immediate open access. That's the background. I think it's generally not easy in Hungary, but probably not like most of other countries as well to publish the books." (Hungary, library)

Quality concerns

Another important issue the interviewees mentioned is quality concerns, especially related to peer review processes. Respondents noted problems with peer review and the length of the review process as hindering factors and the need to apply peer review standards.

Extract #1: "We have also made various attempts to leave the reviewing to the publishers. None of them have been very successful so far, because the publishers' reviews have not usually met the [Organisation]'s quality standards. Particularly in the case of German-language publishers, where peer review is not yet so well established, it has often been very difficult to obtain truly external reviews that meet the [Organisation]'s bias criteria, which are probably very strict... It would also be helpful if there was a uniform structure or system for assessing the peer review of publishers." (Austria, policy maker & RFO)

Extract #2: "Whereby the assessment, peer reviews, as I see it, are more interesting for journals. It hasn't quite become established for books yet. There are often still editor reviews." (Switzerland, RPO & library)

Extract #3: "However, as far as I'm aware, and this is not a national phenomenon in Romania, I think neighbouring countries have the same issue, book peer review is a parody. It never really happens in most cases, especially with local publishers, which is really the norm for the vast majority of Romanian academics to publish it. In fact, I have to publish a book with my university, and I'm required to bring in my own reviews... So, again, unfortunately, I think we have the issue of the quality of the books. Many of the books in Romania are not of acceptable quality and do not undergo proper reviews. So they go through predatory publishers that are not recognized as such. They are left to run free." (Romania, RPO)

Publisher unreadiness

Publishers are not always ready to embrace a model of Open Access for their books. The capability to adapt to this new kind of economic environment can be a powerful limitation especially for for-profit publishers. In a market where publishers' are small or medium, the lack of their own resources could be a hindering factor in the transition. Again, the lack of precise policies and support from governments could push back any attempt toward Open Access in book's publishing.



Extract #1: "I think there are also some responsibility from the publisher side to make and I'm not discussing here the issue of the business model and the BPC, et cetera, just to make the life of researchers who wish to publish open access books easier." (Belgium, RFO)

Extract #2: "What we hear is that if it's really important and your own career is at stake, you'd rather publish a monograph with a regular publisher, because there you're in an environment that carries more weight. We have not yet reached the point where institutional publication service providers can keep up." (Switzerland, RPO & library)

Extract #3: "We don't have large or maybe medium size (*publishing companies*). Some of them are medium-sized, but usually they are small size private publishers. They are founded as a company for profit, but they are not really profiting from book publishing, or at least not in a way that they could be independent on the market. They normally also apply for subsidies from the ministries and from other funds, or the authors help them in making a financial construction for a book to be published." (Croatia, RPO)

Definition issues

Definitions are some of the most essential components of any OA policy. As was observed in the policy element analysis provided earlier in the report, there are differing definitions for what is considered a book or monograph and what the central characteristics of such works are. Interviewees were generally in agreement with PALOMERA's definition of an academic book, but pointed out that on the practical and normative level many issues still exist for it to become a widely accepted standard by both publishers and academics.

Extract #1: "I think it's a very good definition (*the PALOMERA definition of academic book*), but we already tried to use it to conduct a survey of Ukrainian book publishers and responses to War, and we received a lot of clarification questions like whether textbooks are included or not included and should be distinguished between players who publish those books commercially non commercially. So it IS a great definition, but when you try to apply it to an industry which is very diverse, then some questions arise. But it doesn't mean the definition has to be changed. They just mean that it has to be explained, maybe with a little bit of context." (Ukraine, RPO)

Extract #2: "I don't think there is one [definition] that has been agreed upon. But I do think that it's moving in that direction. Whereby the assessment, peer reviews, as I see it, are more interesting for journals. It hasn't quite become established for books yet. There are often still editor reviews." (Switzerland, RPO & library)

Extract #3: "In Slovakia, there is no such generally accepted definition, as you mentioned," (Slovakia, RFO & RPO)

Licence adoption

Licence adoption, particularly regarding Creative Commons (CC) licences, emerged in the interviews as a notable hindering factor in the development and implementation of OA book policies.

One contributing aspect is the limited understanding and scepticism of CC licences. Many authors and researchers lack a comprehensive understanding of CC licences and their implications in particular, but also copyright more broadly (see Extracts 1-3). In addition, there's significant



apprehension and hesitation among authors, particularly in the humanities, about adopting more open licences and, hence, authors often choose the most restrictive CC licences due to fears of commercial exploitation or misuse of their work (see Extracts 4 and 5).

Extract #1: "the vast majority of reasonably quality researchers, at least, are in no way concerned, do not care, do not have the time to think about licensing" (Romania, RPO).

Extract #2: "I think the ideology behind the Creative Commons needed time to sink in I think researchers needed time to understand why they are the way they are, why it is so important for reuse of research output, and that the old regime was based on what publishers needed, really because of the business model, they needed to hold back and protect publications and use copyright agreement to do this to protect really their products, what they are living of" (Norway, RPO)

Extract #3: "The only example I have seen from this publishing house, which charges, I mentioned the 30 euro per page, they clearly say they apply CC BY 4.0. Creative Commons licensing is not very popular in Bulgaria, so I haven't seen other examples. I think this is an area where we need to do more work also for people to understand how they should licence their own creative and research outcomes. Not much there from my observations." (Bulgaria, RPO)

Extract #4: "also critical voices who would very much like to have the ND licence because they fear that their work could otherwise be read, quoted and misinterpreted by the wrong people. However, this discussion has tended to die down in recent years. There is more understanding now" (Austria, policy maker & RFO)

Extract #5: "For example, if you tell a person in the humanities, this could be used commercially, they see Hollywood coming and reusing their book and they [authors] are getting no money at all. So they were not comfortable with this. And then we said, Okay, just use any CC license, any license you like. So now we are trying, and it's quite difficult, we are trying to persuade these journals to shift to CC BY because we say, "Okay, over the several years, nothing bad happened. You can see that it's just to indicate something to the users. Nobody is really using these materials in an inappropriate way, so you could... Now that you have this experience, you can shift towards more liberal licenses." The new OS policy draft, it also says CC licenses, preferably CC BY, basically. I think that CC BY, non-commercial is mentioned, I'm not sure. But basically it's CC licenses. I believe that for monographs, it would be quite difficult to implement CC BY for everything." (Serbia, RPO)

Changing landscape

The changing landscape of OA publishing emerged as a significant hindering factor in the development and implementation of OA book policies. This dynamic environment creates challenges for policymakers, publishers, and authors alike.

For instance, the rapidly evolving nature of OA publishing, particularly for books, creates uncertainty and hesitation among stakeholders. As new financing models and major projects emerge, decision-makers often postpone policy development to follow these developments (see Extract 1). This wait-and-see approach can lead to delays in policy implementation and create a cycle of perpetual reassessment.



Extract #1: "major projects underway and various financing models are emerging. It was decided to postpone it and follow developments." (Finland, policy maker)

Complicating matters further are ongoing debates and policy shifts at national and international levels. Discussions about specific policy elements, such as embargo periods and immediate open access, continue to evolve, influenced by new guidelines from entities like the EU (see Extract 2). These shifting parameters can make it challenging for institutions and publishers to establish stable, long-term policies.

Extract #2: "Now I think the embargo period is something that will be discussed with the new EU conclusions that came out during the summer. In them, immediacy is often emphasized. But then there are probably strong opinions about lifting this embargo, but my guess is that this is a point that will still be discussed." (Finland, policy maker)

Moreover, the book publishing ecosystem is diverse, with various text types and disciplinary specificities. This diversity makes it challenging to create one-size-fits-all policies, leading to ambiguity and gaps in existing policies (see Extract 3). Often, OA policies are primarily focused on journal articles, with books being an afterthought or lumped together under general "publications" without specific considerations.

Extract #3: "It's something which, on the book side also, you have to keep asking the question of does this impact books? Because OA policies tend to always be journals-focused or led by journal policy and they might include books within the detail of the policy... It's rare to have one specifically just for open access books first." (UK, publisher)

The changing landscape also affects the economic models of publishing. There's ongoing debate about the sustainability and fairness of various OA funding models, such as BPCs, which adds another layer of complexity to policy development (see Extract 4).

Extract #4: "I no longer believe that the BPCs or APCs are the future, so costs which are calculated on one book or one author. The more I read about it and think about it, the more is that the model that we want to support? And I have to be very honest, too. It's not like I was hoping five years ago very naively, this is going to help to turn our university press from an old-fashioned press to completely open access press. They have no intention of doing this. They are happy to turn half of their activities open access, and the other half remains very traditional." (Belgium, RPO)

Lastly, the technological aspects of OA book publishing are also in flux. Issues such as digital preservation, electronic legal deposit, and the environmental impact of digital publishing are still being grappled with, further complicating the policy landscape (see Extract 5).

Extract #5: "There is an important legislative connection here. Obviously, every national library has a legal deposit. If you publish something physically, you have to send a number of copies and you know that the national library will keep, for sure, a copy of your work, and it will send copies to some other libraries. They will decide. If it's an academic book, it will go to academic libraries. If it's a novel or poetry, it will go to public libraries. One other aspect which is missing is how to deposit electronic books, where to deposit them. Because at the moment, there is no law. People might end up in this Bulgarian portal of open science, but this is based more on their initiative than on regulation, which means that we risk losing if something is digital-only. It's not captured in a clear process." (Bulgaria, RPO)



Technical issues

The expansion of OA books is connected to the technological capabilities of libraries, publishers and other institutions to create, maintain and host digital spaces and digital products. The lack of such competences in-house can become an expensive issue for research institutions. Publishers themselves, lacking particular incentives to move from the physical book to the digital – and potentially open – ebook, will not acquire the necessary skillset, nor spend their own scarce resources to support such a transition.

Extract #1: "They're not always against. So the thing that they sell books doesn't make them always against open access because they realize it's not such so much of a threat. But they lack knowledge of how to produce and open access books and what to do with how to market it. They are very good in marketing print books. But when it comes to... And it's not like an important thing is we don't have ebooks for sale, scientific ebooks for sale. So it's simply too small market, so it's not viable. So it's a jump from print to open access" (Croatia, RPO)

Extract #2: "Our IT people, they earn a lot in the industry and they don't want to deal with open source. They know nothing about it, they don't want to know. At the university, they are trained that this is something completely not interesting.] So mentioned this option - using DSpace or, for example, PKP software. That was one of the ideas. However, we couldn't identify a stakeholder who would deal with this task. The ministry wasn't interested. It wouldn't have been expensive, but they were not interested at all and we [working group] couldn't identify an institution to run this, because in Serbia everything is very centralized" (Serbia, RPO)

Extract #3: "We do have a problem with technical infrastructure because we don't have an employee with expertise in information technology. So we are, how to say, hired a firm to help us with programming and other things with OMP." (group interview with libraries)

Coordination (institutional)

Institutional coordination emerged as a hindering factor in the development and implementation of OA book policies. The challenges are multifaceted, encompassing internal communication barriers between departments (Extract 1), fragmented organisational structures within institutions (Extract 2), and lack of centralised information across different institutions (Extract 3).

Extract #1: "Well, actually, yes, our financial people are monitoring how much money we spend on open access fees, but it's our financial people, and they don't often talk to the scientific council about it, for instance." (Romania, RPO)

Extract #2: "One of our difficulties has been the organizational structure, that different departments are responsible for different parts of the information. Because what the library is responsible for is easy to adjust. But then there is information from other departments. It could be legal functions, it could be the research support departments, or it could be IT. Then we have this traditional divided structure that each department for itself, each area for itself. But for researchers who want to find the service, it doesn't matter whether it's the IT department, the library or you just want to know. They just want an answer to their question." (Sweden, RPO)



Extract #3: "It's very fragmented at the moment with that information. To have a full picture, I guess you'd have to go onto each library university website to see what their OA book requirements are." (UK, publisher)

In addition, slow and closed policy development processes can further complicate the landscape (Extract 4). Compounding these challenges is a pervasive lack of awareness and education about OA among stakeholders, including university administrators and researchers, which undermines effective policy implementation (Extract 5).

Extract #4: "My manager and our principal are members of this reference group for the KB's work on the national policy. From what I hear, a lot is going on. I know that the Swedish Research Council has a rather closed working culture. They try to provide information, but they are often criticized for the fact that there is very little insight, very little opportunity to influence, and it is very slow. They have a lot of internal processes so, a heavy structure." (Sweden, RPO)

Extract #5: "...there should be a link between the policy and what can actually be used and which can be of interest to the researcher and which can be important to the researcher, in the researcher's everyday life, I understand the researchers' work environment... They don't have to be involved in anything related to open science or even understand all the parts. They just need to know how to do the right thing to be able to conduct their research in a correct way according to the norms and practices that apply today. It should not be a political position that you publish this or that, but it should really be a natural part of the process. So simple that if I can publish myself openly, I do, and if I can't do that, I have to limit myself in some way and then I do this." (Sweden, RPO)

Moreover, financial coordination for OA books is complicated by the intricate funding allocation processes involving multiple departments and committees, at times requiring negotiation and compromise (Extract 6). Meanwhile, institutions may face challenges in restructuring their organisations to effectively support open science initiatives, with a notable lack of successful models to follow (Extract 7).

Extract #6: "The funding committee has a budget for each year. Basically, all departments of the [Institution 1] are represented in the funding committee. And they have to come up with a short list of books to be funded, which is always a compromise between the different departments..." (Hungary, library)

Extract #7: "make fairly large resource changes within the university administration to free up resources for other things. But it also seems that it is difficult to find someone who really works in this way. I would like to have a lecture from a university that has made such a journey where they have changed their organization, adjusted to adapt the entire organization for these purposes to be able to meet new needs around everything that is linked to open science and funding models." (Sweden, RPO)

Furthermore, technical challenges in OA book publishing encompass complex issues of discoverability and integration with library systems (Extract 8). Concurrently, in some cases, there may be a tendency to overlook the value of librarians' expertise when dealing with technical complexities, despite their extensive experience in managing complex information systems (Extract 9).



Extract #8: "There are lots of issues around OA discoverability, and I think that's something that's being discussed quite heavily now. Switching the metadata from close to OA isn't enough to get it through the systems." (group interview with publishers)

Extract #9: "...this is job for librarians. They have the know-how and they have the expertise in organizing human knowledge, especially books for hundreds of years. People usually scoff at the libraries, but libraries are highly complex systems that have highly ordered procedures for everything. Basically, we should harvest their knowledge, not ignore it. We are technical support and they should be the ones calling the shots." (Bosnia and Herzegovina, RPO)

Copyright transfer

Copyright transfer emerged as a hindering theme in the development and implementation of OA book policies. Particularly when authors lack funding for OA publishing, they may feel compelled to sign copyright transfer agreements to ensure their work gets published (see Extract 1). This creates a dilemma where the desire for OA conflicts with the practical need to publish, especially with international publishers. Hence, the lack of financial resources to pay BPCs may effectively push many authors into traditional publishing models that require copyright transfer, thereby hindering the progress of OA in book publishing.

Extract #1: "When publishing with international publishers, there is the issue of copyright transfer because authors usually can't pay BPCs, so these books are usually not in open access." (Serbia, RPO)

Publishers, on the other hand, particularly traditional ones, often impose lengthy embargo periods, hindering OA (see Extract 2).

Extract #2: "I have seen contracts with 100 years embargo. Especially from very small German Humanities publishers, they have really insane embargo periods." (Netherlands, RFO)

In response to these challenges, some institutions are exploring solutions through copyright retention policies (see Extract 3), which could potentially provide more leverage in negotiating OA terms with publishers. Another potential solution lies in legislative changes to support secondary publishing rights (see Extract 4), providing a legal framework for authors to make their work openly accessible.

Extract #3: "We have some regulations on departmental level by university, and most of these regulations are about who holds the copyright of books funded by the department. And the owner is the department and the university." (group interview with libraries)

Extract #4: "What I can perhaps add is that it would be very desirable at the legislative level for secondary publishing without an embargo to be the rule. There are efforts at EU level to take a closer look at this area of secondary publishing rights and possibly to make this advance with a zero embargo and then with a very open license, which would of course also affect the book market or could and could promote open access books." (Austria, policy maker & RFO)

Articles vs books



In the debate comparing article and book publishing, several key disparities emerge. The primary evidence points to the notable absence of books within open science policies at various levels. Journal articles predominantly remain the focus of research evaluation systems, while monographs are often insufficiently addressed. Publishers tend to prioritise journal production over monographs, largely due to the latter's lower commercial appeal and higher production costs. Additionally, securing the right to publish monographs in open access is generally more complex. The lack of dedicated technical infrastructure for books further exacerbates these challenges.

Extract #1: "...the University encourages its researchers to publish their research results in open access journals. So as soon as it becomes concrete, which was the perspective in 2012, there is still no talk of books. That would have to be adapted." (Switzerland, RPO & library)

Extract #2: "scholars are encouraged to write more articles than books ... You need to put a lot of effort to write a book, but still you have requirements to write articles. So, it seems to me that scholars tend to write more articles and fewer books" (Lithuania, RPO)

Extract #3: "economic aspects around book publishing for publishers are not that commercially interesting as they are for journal publishing" (Norway, RPO)

Prestige

Our interviewees seemed to agree that prestige should generally stem from the content or quality of the book rather than its format or openness. So, when talking about prestige, interviewees rather mention factors such as quality control, peer review or publisher. This quote nicely sums up the general notion the interviewees have about the prestige of OA books:

Extract #1: "open access is just another format. It can be hardcover or software cover, or it's just another way to publish. I mean, it's like an e-book or a PDF or da da da. Now the prestige comes from the label, comes from the peer review, comes from the collection that the book gets published on, and comes for the prestige of the imprint." (Spain, publisher)

Extract #2: "I think that when it comes to prestige nowadays, the prestige of a book is, of course, built by its content, and here no open access and open access will help if the publication is poor." (Poland, RPO)

Visibility

The issue of visibility addresses the lack of open and sufficient metadata, little use of persistent identifiers, publishing formats beyond the pdf or open access archiving of books especially from small publishers and in languages other than English.

Extract #1: "the open access archiving of the books on the publishers websites. They were often very hidden" (Austria, policy maker & RFO)

Extract #2: "more visibility, international visibility would be really beneficial for basically all countries, all non-English countries, and all those books which are not on big international publishers platforms" (Hungary, library)

Extract #3: "the issues of standardization, using persistent identifiers and preservation of those books" (Croatia, RPO)

Extract #4: “These are not actual e-books. We speak here about the open access to books. The full texts are not available” (Bulgaria, RPO)

Environmental impact

The environmental impact of print books publishing has hardly been considered, although more attention is now being paid to this aspect, but still not sufficiently.

Extract #1: “Sometimes I prefer to read on the printed book, but there is also an environmental, in a strict sense, problem, because we can't print everything, because this system has an impact, an environmental impact, a very huge impact.” (Italy, RPO & policy maker)

Extract #2: “Yes, at the [University 1] we also have very strong environmental policy. So that's also one good thing, one point that we could point out to the funders to say, okay, if you support open access textbooks, we'll be more green, to say. But at the moment, we do not...” (Slovenia, publisher)

Policy renewal

Interviewees singled out the importance of policy renewal as a challenge as many developments in Open Science emerge quickly, new directions appear, like open research methods and open source codes. So existing policies need to be updated.

Extract #1: “Yes, that's the challenge, of course. That you write a policy and then just when you are done, there is something else that you have to start, a bit like renovations. In addition to the declaration, the oldest policy is open access to research publications, articles, for journal and conference articles from 2019. But we will have to look at which end to start at, should we start with the oldest or should we start with the one where we assume there have been the most changes. But some of them are very new, the sub-policy for open access to research methods and infrastructures came in the spring, so we probably won't start here. Although, of course, this is an area where developments are happening at breakneck speed.” (Finland, policy maker)

Extract #2: “I think that for Italy, it's very important to update our open access law also to include explicit book chapters and not only journal publications that are defined as publications or journal published twice more or equal than twice a year. So we have to change this, though, to include also open monograph and open chapters. I think that another way to support open access practices is to support some infrastructures.” (group interview with libraries)

Another point of attention is the degree of policy precision.

Extract #3: “there is a difference in the degree of precision. Let's say how prescriptive the policy is, versus mainly signalling principles” (Finland, policy maker)

Bureaucracy

Bureaucracy can pose challenges to the development and implementation of OA book policies. For instance, the constantly evolving nature of policies makes it challenging for stakeholders to stay informed and adapt accordingly (Extract 1). Organisational structures within universities may be outdated and ill-equipped to handle the demands of open science, making it difficult to implement



necessary changes and provide adequate support for researchers (Extract 2). Moreover, a lack of coordination between different departments within institutions, such as financial departments and scientific councils, can further complicate policy implementation (Extract 3) and the process of funding and approving OA books can involve complex administrative procedures (Extract 4).

Extract #1: "We're a specialist open access team, so we're most likely to hear about it first. Whereas a publisher who's either much smaller or isn't as focused on open access might only hear about it months later when it appears in the bookseller or something like that. In terms of discoverability and awareness, I think keeping track of policy is difficult. Policy itself is never announced and that's final. It's always ongoing. It's not just tracking what the policy is, but it's tracking how the policies are currently developing." (UK, publisher)

Extract #2: "I think that's almost one of the biggest challenges in this whole process of the transition to open science. That there are still very old-fashioned organizational structures, perhaps also partly old-fashioned working methods. Because as well as making demands on the researcher, the researcher needs to adapt his or her way of working now for new needs linked to open science, new ways of working, new other types of system support services to be able to publish. Nevertheless, the university or higher education institution's organization must adapt with its administrative support. We are not quite there yet." (Sweden, RPO)

Extract #3: "Well, actually, yes, our financial people are monitoring how much money we spend on open access fees, but it's our financial people, and they don't often talk to the scientific council about it, for instance." (Romania, RPO)

Extract #4: "Basically, the way to fund the book is that the [Institution 1] has 11 departments. The first department is for language and literature. The second department is for history and archaeology and some other things, etc, etc. If a scholar wants to publish a book, he or she should go to the corresponding department of the [Institution 1] and introduce a proposal for producing a book. If the department of the [Institution 1] supports the idea, then it goes to the funding committee." (Hungary, library)

Language

Relating to the language issue, respondents remarked the need for language balancing within books publishing, e.g. "balancing of content in different languages" (Norway, RPO), "what we should translate and what we should leave in our language" (group interview with libraries), paying particular attention to the Helsinki Initiative on Multilingualism in Scholarly Communication. They noted that monographs tend to be published primarily in local languages (Norway, RPO; Hungary, library) and then translated into English, expressing reservations on the relevance of publishing local language books at the international platforms (Norway, RPO).

Coordination (international)

Some respondents noted the need for more cooperation at the European level dealing with provisioning technical infrastructure, developing common approaches to financing, and supporting publishers who work in line with the OA books initiative.

Enablers in policy development



In this section we present the identified themes that were generated by reviewing the 763 PESTLE tags marked as positive from the interviews and manually sorting the interview extracts related to the tags into thematic groups through an iterative process. For 682 of these we could distinguish a particular theme to which the extract could be perceived to be related to. Figure 27 presents the final result in descending order of frequency. In the following subsections, we provide detailed descriptions and textual examples from the interviews for each enabler, presented in the same order.











Theme	Number of extracts	
Coordination (national)	119	
Awareness	106	
Incentives	91	
Financial resources	88	
Technical systems and support	79	
Coordination (institutional)	69	
Policy effectiveness	67	
Changing landscape	63	

Figure 27 - Identified enablers from interviews, sorted in descending order of occurrence frequency

Coordination (national)

The capability of nation-states actors to coordinate the efforts in the field of Open Science is perceived as fundamental. The presence of clear policies on the national level, or the existence of networks that could connect the stakeholders involved in the field, is a powerful motivator and push for open access publications in scientific production. Interviewees also notice how the presence of another actor, the European Union. The policies launched by the EU were mentioned as a powerful presence in the national environments, demonstrating long-term commitment to the cause that has in turn helped build and adopt national and institutional policies.

Extract #1: “We have this Declaration on Open Science and Research, which defines objectives in four areas: research culture, publications, learning and training, and research materials. According to the declaration, policies should be made for each of these areas. And then we have the expert groups where you can form working groups where anyone can join contribute to preparing a policy draft. The policies are prepared in these working groups with the support of the steering group for open science and then the policy at a certain stage goes out on a public comment round to the entire research community where one can comment as an organization or as an individual and then the comments are taken into account and then it goes through the steering group one more time and then they are published” (Finland, type of stakeholder - policy maker)

Extract #2: “There is actually a third component, and it's again, we as the [Institution 1], are involved in this. This is the National Consortium for Subscription for Electronic Resources. This national consortium, which we organise and run here, but all the universities are members of this conference room, was traditionally for buying digital journals, the big publishers and whatever.” (Hungary, library)

Extract #3: “There's intensive activity going on in Ireland on the North projects. I can send you some links about these things. Later on, and some of them are very relevant, I think, to PALOMERA, in particular, the North project, which is called Publish OA. It's just over a year after its initiation. The way that the North operates is that there's a whole governance structure around it. The funders have their own form within that. There is another governance form with early career researcher, representation from various different groups. There is a Secretariat that's provided by one of our government ministries, our departments, and our Department of Education and Science is involved with it, the Hence research board, because they're one of the... They run HRB Open Research, which is the publishing platform, exactly the same as the European Open Research platform and the Gates platform and the other one” (Ireland, RPO)

Awareness

In the interviews, awareness emerged as a critical enabling factor in the development and implementation of OA book policies. As stakeholders become more cognizant of OA benefits, they may become more likely to support and implement related initiatives (Extract 1). This increased understanding can shift academic culture towards embracing openness (Extracts 2 and 3), help address misconceptions about OA quality (Extract 4) and make authors more comfortable in adopting OA publishing practices (Extract 5). Furthermore, awareness is cultivated through multiple channels, including international networking and collaboration, policy-driven incentives, and gradual familiarisation over time. The experience from Extract 6 highlights how shared good practices across European networks contribute significantly to the acceptance and implementation of OA book policies by convincing researchers of OA's benefits and fostering positive perceptions of open access practices.

Extract #1: “Yes, during the pandemic, everybody understood the importance of the open access, of the open publications. After this process, everybody would like to be published, would like to have open access books, open access journal.” (Turkey, library)

Extract #2: “I find very encouraging the fact that initiatives like COARA and Dora is in place. I expect that those institutions that are participating in these initiatives will change. Maybe not now, but maybe in five or even 10 years, I think there will be a change. Until then, we have a lot to discuss, and yes, of course, to debate with different opinions, traditional opinions and cultures, especially in humanities. I think Humanities is one of the difficult, let's say, areas to change” (Cyprus, RPO & library)

Extract #3: “But as you may have seen as the Netherlands is really active in transforming the recognition reward structures of academia, meaning that we as a whole. So [RFO 1] is a partner in that project, the universities. All universities are in the project, and the Royal Academy of Sciences and the medical. The hospitals, the academic hospitals are part of that project. Many things are discussed. One thing is, of course, promotion and tenure. For instance, in the case of the research council, we work on the narrative CV, so we don't ask immediately for what are your highest ranked impact factor articles. We really ask about openness, for instance. One of the things we have done in our Open Science Fund, these are small grants, 50K grants to support researchers in their open science practices. That's the [RFO 1] call. We ask for an open science track record. It's part of the assessment. But also we like to acknowledge that if you have published openly. That's also for books, so books are included in that aspect.” (Netherlands, RFO)



Extract #4: “We talk quite a lot about open access, so it is different to a press that doesn't. From the time when I first started working in open access book publishing to now, the credibility of open access publishing for books and the quality concern, I think the conversation has moved on quite a bit from those days. It's less of a thing for us now, persuading authors to publish an open access, and it's more authors requesting OA because they realize that everyone can read their books. At least for the authors that we work, their concern is how to make it possible for everyone to be able to read their book. They want a paperback, they don't want a hardback, and they want the book openly available.” (group interview with publishers)

Extract #5: “We've had an open access policy since 2004. That means that our authors know that publications have to be open access and they recognize that. When I started at the [Organisation], I still had to explain why Open Access, what a repository is and all these things. But now many people want to publish open access and don't ask these questions anymore. They ask how you can make an article or a book open access. I get the impression that because it's been known for so long, it's also very accepted. But that's also just a very subjective perception.” (Austria, policy maker & RFO)

Extract #6: “One thing that does help us a lot is our connection with European networks or presence in the Guild of research universities, the organisations of the utopia University Alliance or possibly our accession to the DARIAH network, where sharing good practices actually would convince more of our colleagues that this is the way to do things.” (Romania, RPO)

Incentives

Incentives as an enabling factor in OA policy development and implementation take various forms, addressing different stakeholders in the scholarly publishing ecosystem. For instance, policy requirements from funding bodies and institutions serve as strong motivators, often mandating OA publication for funded research (Extract 1 and 2). In addition, financial incentives, such as dedicated funding for OA book publishing and higher support for immediate OA, encourage both authors and publishers to embrace OA models (Extract 3 and 4). Furthermore, the promise of increased visibility and the potential for higher citation rates attracts researchers to OA (Extract 5). Relatedly, career advancement opportunities linked to OA publishing, including consideration in researcher assessments and hiring processes, further incentivize authors (Extract 3). National-level coordination and changing evaluation criteria that favour OA and engagement over traditional metrics contribute to a supportive environment (Extract 6).

Extract #1: “I think, yes, the academic system, yes, because there is no other way. I mean, open access with embargo, if they don't agree, then they won't get funded. I think it's a pretty good reason to publish open access.” (Hungary, library)

Extract #2: “Well, the biggest incentive is certainly research funding. Plan S now also applies in Switzerland via the Swiss National Science Foundation (SNSF).” (Switzerland, RPO & library)

Extract #3: “...in terms of career rewards, there is a program in the Netherlands called Rewards and Recognition. Which basically aims to start assessing researchers and professors and also during the interview process, when they're hired, not on their age scores and not on their index of what they publish, but on something like engagements, impact, and also open access publications. So you could argue that that's an incentive. And



then since there are these funding requirements, there are some funds across the Netherlands and in individual libraries that cover some of the costs for researchers if they don't have the funds themselves in their own faculties." (group interview with libraries)

Extract #4: "Well, we had discussions when we introduced it, but that was back in 2009. The publishers weren't very enthusiastic and demanded that the book should only be made open access after 24 months. We said that was out of the question. Either at the same time or after a maximum of one year. We also started with this embargo. But most publishers then opted for simultaneous open access because the [Organisation] paid out more funding for it. And that's why after three years or two years we said that since most publishers were responding to the higher funding and publishing simultaneously in open access anyway, we would no longer give them the other option, but would require everyone to publish simultaneously in open access. The publishers then followed suit and I assume that the [Organisation]'s funding is not too low." (Austria, policy maker & RFO)

Extract #5: "Say there is an indirect incentive that citations are taken into account in many variation criteria. People maybe are starting to see that open publication increases your chances of being cited also for books." (Romania, RPO)

Extract #6: "Yeah, I mentioned earlier that there is a national program that is part of the Horizon 2030 Open Science, that is rewards and recognition. So basically just progressively in all universities, researchers are not assessed anymore from old school parameters such as the H-index, but other parameters which include among them open science, and so also open access publication. So if you publish open access, both articles and also books, then that gives you a higher score than other people. So that's part of this rewards and recognition program." (group interview with libraries)

Financial resources

A powerful driver for Open Access is the access to financial resources to support a publication in this form. During the interviews, it was stressed many times that the presence of funding dedicated to support OA books is a fundamental element for any researcher who intends to make their book accessible in OA. Interviewees stressed how important the presence of resources for both libraries and universities to fund OA books are. Programmes, as the one of the universities of Radboud in Nijmegen, are examples of good practices that allow scholars from outside their institution to publish with them using a Diamond Access model.

Extract #1: "The funding is coming from the Ministry of Education and Science, but also for the books that are not funded by them. The university management is deciding on which books are going to be funded, and mostly there is still no difference. It's what authors want. If they want a book to be published in the OA, then they are going to support it." (group interview with libraries)

Extract #2: "Then with regards to the funding, it depends also on each funding instrument, but there is the possibility to use part of the project money to fund the BPC. This is allowed in, at least in most, instruments. I wanted to add something else, but now it has slipped my mind, but I'm sure it will come back to me." (Portugal, library)

Extract #3: "To give a few examples, so Utrecht has a dedicated open access fund for APCs, but also for BPCs for a longer time now. Some have had their new university place like Groningen and Radboud, but also Maastricht recently started an open access book



program. So it's free to publish for their researchers. Others can join as well, but they need to pay a BPC. Except from, I think, Radboud or Nijmegen. They have an entire diamond open access model. So they have a certain amount of books which they can publish each year, and that's financed by the university." (Netherlands, RFO)

Technical systems and support

Technical support is fundamental in supporting the transition from physical books toward Open Access, digital monographs. The creation of repositories is a major step for publishing manuscripts and other research products. While in some cases, interviewees pointed out the creation of ad-hoc repositories, in other contexts offering a support toward the Open Access model has been a facilitating factor for this kind of publishing. What has been limiting authors in jumping in the OA process has been often the lack of knowledge of how to achieve this kind of access. The presence of institutions and experts capable of supporting them could foster a better environment for the creation of more content free to use for readers.

Extract #1: "That's why we set up our own repository to really make the publications more visible. But in the meantime, it has already reached the publishers, and most publishers have their own platforms where they present their books. Many publishers now use DOIs." (Austria, policy maker & RFO)

Extract #2: "We decided to publish in open access, and it's like a nonprofit. We do this because we want to show our publications, and we cover fees from publishing projects. We have specialists in publishing house who does proofreading. Funded by the European Union, If some author wants to have a print version of the book, has to cover the cost by himself." (group interview with libraries)

Extract #3: "We provide support for the authors and for the readers as well. If someone has a problem with making a book open access or accessing a book which is supposed to be open access, we help in this regards. We have a hotline. We have an open library so everyone can log in and ask us or can send us an email or whatever form and we support the scholarly community or the readers in general accessing those things." (Hungary, library)

Coordination (institutional)

Strong institutional policies are the key to effective implementation of open science, in particular open book publishing. Among good practices at the institutional level, the interviewees mentioned paying due attention to the book review process (Extract 1); keeping the researchers' awareness (Extract 2) and providing sufficient and easy-to-find information (Extract 3); requiring open access to publications and monitoring its compliance (Extracts 4 and 5).

Extract #1: "However, I should mention that we at the [Organisation] introduced an open access policy for books before that and our policy was not initiated by this national strategy, it was actually the other way around. The [Organisation] had the policy and then came an overarching national open science strategy, which also contains various elements from the area of open access... That's extremely important because we do most of the reviews ourselves. This funding program has been around for 50 years, back then it was only for print publications. We always had the publications reviewed before they were funded... we require two reviews of the entire manuscript, which also comply with the [Organisation]'s bias regulations. No reviews from series editors, but genuinely external reviewers." (Austria, policy maker & RFO)



Extract #2: "In my university there are workshops organised for researchers about open access, we also have conferences and other events that aim to encourage researchers to publish in open access... We have a very strong library and librarian do really a big job here. They do trainings for scholars about open access, about open science data, and about all those things. Furthermore, they also provide information on their website and so on and so on. In our university, there is a lot of information, promotional work, and I see that it comes from the university library." (Lithuania, RPO)

Extract #3: "On our website and it's easy to find and it's kept up to date as well. For the Green OA Policy, we have a separate page" (UK, publisher)

Extract #4: "What I would perhaps like to add is that it is also so present for many researchers in Austria because the [Organisation] demands open access to publications in the final project reports. And we have been actively checking for many years whether a publication complies with our policy. And if not, the authors are contacted by one of our colleagues. Thanks to this active compliance monitoring, we also have a very high open access rate for publications resulting from [Organisation] projects. We have learned and seen in our policy work that this persistence is very helpful and supports the goal of the policy." (Austria, policy maker & RFO)

Extract #5: "The [Institution 1] has a long standing and from time to time, renewed open access policy. From the very beginning, it basically applied for books as well. Fortunately, we do have some support as well for publishing books in open access. It goes a little bit differently. It's not just an open access fund or something. It goes like that, that the [Institution 1] does fund scholarly books, and it has funded scholarly books 20 years ago. But recently, it became a requirement then if a book is funded by the [Institution 1], then sooner or later, I mean, applying an embargo, it should become open access. The recent policy is that all books funded or supported by the [Institution 1] should become eventually open access." (Hungary, library)

The following initiatives were touched upon aimed at supporting the progress in open access implementation (Extracts 6 and 7).

Extract #6: "We had at one time, as we still have as part of the initiative, and IDUB (Inicjatywa Doskonałości Uczelnia Badawcza) for this was perfectly executed by the research university." (Poland, RPO)

Extract #7: "The idea was that they wanted to include all services and support regardless of departmental affiliation to make it easy for researchers. And such a project was started where we tried to create an information entrance, a funnel, where researchers could go and find these different types of Funded by the European Union services and support linked to where they are in the process and it was ethics, application or review or whether there was a need for storage space or writing data management panels and such things. Somewhere along the line, now that you've said it, I think that you might actually present the support service with some kind of link to the policy and plan. That it actually ... now I have a new idea." (Sweden, RPO)

Policy effectiveness

The involvement of different groups of stakeholders during policy development seems to be a good practice for policy effectiveness.



Extract #1: "Internally, we have a dedicated policy team as well, so they're useful to make sure that we're in alignment across the business for certain things, certain policies. Then in terms of external stakeholder groups, I think, again, it comes down to what either research funders or libraries are mentioning about things like green open access to make sure that we are covering the questions that are asked. Say, for example, can I share my accepted manuscript (AM) with an open licence, for example, and making sure frequent questions are clear and answered on the website." (UK, publisher)

Extract #2: "Well, I can speak for the process of the new policy that is now being finalised. It started from a proposal by the Open Science team with, of course, alignment with the board of FCT. But this has, of course, gone for appraisal by the scientific councils, and also has been subject to a public consultation that was advertised in the different channels that we have for contact with the institutions, for instance, through the beyond consortium towards the institutions or different ways. We have had the opportunity to get the feedback from the community in this way, and there was quite wide feedback, and this has been taken into consideration, and all the comments and questions have been addressed. In fact, some of them resulted in small adjustments to the policy." (Portugal, library)

Extract #3: "On the Austrian side, there are also working groups, and they are divided up into journals and books, and I think there are other working groups too, all working towards the transition, so how to move the system from a closed one into open access. I think the acronym for that project has changed. Now, AT2OA for Austrian transition to open access." (group interview with publishers)

A critical element of the policy that qualitatively affects its effectiveness is prescription of the books' peer-review procedure.

Extract #4: "We recently surveyed all of our commission editors to understand peer-review processes, and it was confirmed that all of our books and not just research books, but all text types are peer-reviewed, and the minimum standard is at least two external peer reviews, as well as the internal commissioning editor's review. There is a range of milestones when it happens, but the majority is at proposal stage. I would say normally we would say an academic research book would definitely have to be peer-reviewed." (UK, publisher)

Policy strengths can be found in the flexibility of open access licences foreseen, taking into account the requirements of the funder and the authors.

Extract #5: "We are flexible with the CC licence we use depending on what the funder or author requires. Our default generally is NC-ND, and I mentioned for translations, that's a requirement. If an author wants to have their books translated into multiple languages by a rights team, then they're only able to work with NC-ND Open Access Books rather than CC-BY." (UK, publisher)

The green open access and self-archiving are supposed to be the main for publisher policies.

Extract #6: "Yes, I suppose in terms of policy, external facing policy, one of the main ones probably is around green open access and self-archiving. It's become very clear that libraries and people with interest in open access, especially green open access will be checking publisher websites to see what the Green OA policy is. We know, for example, there's the new forthcoming, I think, JISC organised Sherpa for the books Service, for



example (which ingests policy information from individual publisher's websites), so it highlights the importance of making sure there's external policy available. Funded by the European Union on our website and it's easy to find and it's kept up to date as well. For the Green OA Policy, we have a separate page." (UK, publisher)

An illustrative example of good policy monitoring is:

Extract #7: "Internally, we have a dedicated policy team as well, so they're useful to make sure that we're in alignment across the business for certain things, certain policies. Then in terms of external stakeholder groups, I think, again, it comes down to what either research funders or libraries are mentioning about things like green open access to make sure that we are covering the questions that are asked. Say, for example, can I share my accepted manuscript (AM) with an open licence, for example, and making sure frequent questions are clear and answered on the website." (UK, publisher)

Interviewees also mentioned some worthy initiatives in open-book publishing, one initiative concerned early career researchers.

Extract #8: "Our Open Access Books programme started 10 years ago, so it's our 10 year anniversary this year. I don't know when specifically the Green OA policy was externally stated on the website. I think it probably would have been around the same time that other publishers were starting to. Because a lot of this, I think, is just generated by when we get questions from authors and it becomes the right point to suddenly make sure we're answering a question repeatedly being asked. I couldn't point to the specific date that we had a Green OA policy, but it's been for quite a few years now." (UK, publisher)

Extract #9: "the Acobe project about book publishing. It's a pilot action in the French community of Belgium to try to it's really a small-scale pilot, but to see if it's possible to develop. We can discuss this later, I suppose, in the interview. But this is a pilot project about how to develop at university level involving all French-speaking University of Belgium, a platform for book publishing in all, not only SSH. And as far as I know, this was, at least for the French thinking part of the country, the only really real initiative I could mention. It's a very recent one." (Belgium, RFO)

Extract #10: "With our own pledge to open model, we've flagged up to commissioning editors when they've been nominating titles to flag up if we've got any authors who are early career researchers as well. I know for Knowledge Unlatched, they've tried to dedicate at least, I think, 10% of the output from that for early-career researchers as well. There's definitely an awareness and a push in the industry to make sure that those who don't traditionally have access to funding can find those funding sources. Equity is one of the key themes you see across open access book publishing." (UK, publisher)

Changing landscape

The changings of the publishing, and policy, landscape have impacted the Open Access and book industry profoundly. The interviewees have noticed and pointed out the evolutions of the respective operating landscape. Such changes, when accompanied by policies and institutions interested in such changes, have been a powerful facilitating factors for the diffusion of OA in the book industry.



Extract #1: “Actually, our experience has been quite good recently, because we have been promoting the open access status of books since 2009 and our applicants and project leaders are also confronted with this and know that they have to publish open access. Of course, there are some less enthusiastic people who used to publish with English-language publishers and didn't have to pay anything for it. Now, when open access is required, they also have to pay a publication fee to these publishers. As I said, however, since the [Organisation] also offers the opportunity to cover these costs, it is still viewed relatively positively” (Austria, policy maker & RFO)

Extract #2: “That is why we wrote the roadmap for open science. At the time, the level of maturity at the universities was quite low and it was really only possible to focus on open access to publications and research data, which was not mature at all at the time. To start talking about books or open educational resources or other free resources was not really on the agenda. So that's why we focused quite a lot on research data. We made recommendations through SUHF where we encouraged higher education institutions to start working with it. We wrote a recommendation around 2018, now I don't remember the years exactly, that you should write a data management plan, for example. And then came a recommendation where we encouraged higher education institutions to draw up a research data policy. Now, a research data policy feels a bit passé. Now it feels like an open science policy is what we want higher education institutions to develop” (Sweden, RPO)

Extract #3: “I was also involved in the creation of the first open access policy in Cyprus. This happened in 2016. And the most recent one, the revision of this policy, which is about open science and its aspects, which was finally approved in May 2022. And we are also, even though OpenAIRE as a project has finished, we are still acting as an Open Science help desk as a library, and we are working with other local stakeholders, either for the creation of their institutional policy or infrastructure or supporting the researchers in related topics and challenges sometimes. This is in general. Regarding the policy, yes, indeed, our policy is also not clearly mentioned in books, but is talking about research outputs.” (Cyprus, RPO & library)

Extract #4: “I suppose one thing, for a publisher, for example, which publishes both journals and books is you have to be mindful of what the other side is doing in terms of policy to make sure that they're not indirect competition or conflict, but instead complement each other. We realise that books and journals are quite different beasts, so they don't have to be exactly the same. But journals is always generally ahead of books for open access as well. There's already been an established landscape for Green OA, so it's making sure the book green OA policy is appropriate for that, and fits into the broader understanding of what Green OA is for books” (UK, publisher)

Summary

The project had collected a rich interview material which we processed through a thematic PESTLE analysis in order to better isolate and explore the different areas that influence OA book policy development and implementation. The next step of assigning positive and negative tags to the PESTLE-tagged extracts from the first step provided the necessary distinction needed to be able to say which aspects have been brought up either as enablers or barriers to policy development. The final step of grouping together similar positive and negative excerpts based on the themes discussed provided helpful generalisation into specific themes that gave better insight into what



topics are discussed and with what frequency. What was interesting to see was that many of the same themes were prominently featured among both the enablers and the barriers (e.g. funding, national coordination, awareness) which suggests that such important factors can either work for or against positive OA book policy development, depending on how they exist and are managed in different contexts.

3.6 Country analysis

This section contains a country-level summary of the data we have collected for the 38 ERA countries. In line with the PESTLE-analysis approach that has guided the project from data collection to this point, we observe how country data maps to a diverse set of indicators. This provides us a way of quickly getting insights on a variety of different perspectives relevant to OA book publishing. The full methodology is described in the methods section in Tables 5 and 6. The indicators we used to structure the country data include:

- OA Policy Framework
- OA Book Funding and Support Mechanisms
- Overall Research Investment
- OA Book Publishing Landscape
- Technical infrastructure
- Legal framework

How the countries map to these indicators is shown in Figure 26. In the following subsections we provide a summarised analysis for each of the indicator categories, also including illustrative examples drawn from the dataset in order to better convey the connection between the data, the categorisation, and when available, more complex country-specific information.

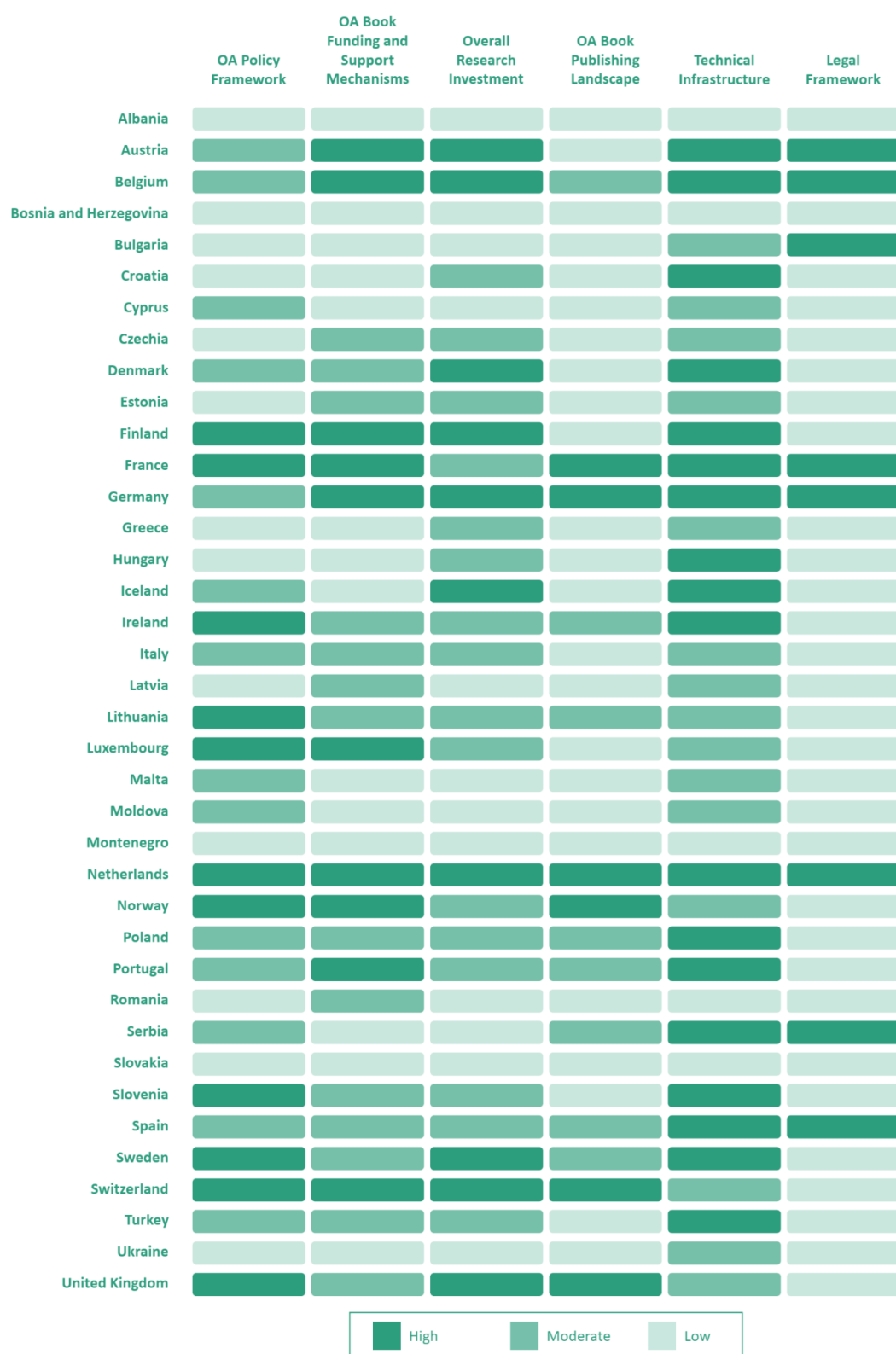


Figure 26 - Summary of the country indicator categories. Full documentation for the indicators is provided in the methods section in Tables 5 and 6. All columns have three possible values: High, Moderate, and Low. The increasing intensity of colour shows higher category values. Except for

“Legal Framework” which has only two possible values for Yes/No where Yes is the higher intensity colour.

Policy Framework

The policy framework has been categorised from low to high based on the following variables: National OA Policy, National OA Advocacy, Plan S Funder(s) in the country, RFOs and RPOs OA Policies.

The **high policy framework** category includes Finland, France, Ireland, Lithuania, Luxembourg, the Netherlands, Norway, Sweden, Slovenia, Switzerland, and the UK. These countries take a comprehensive approach to OA policy development.

At the national level, 8 out of 11 countries have established national OA policies or strategies (Finland, France, Ireland, Lithuania, Netherlands, Norway, Sweden and Slovenia). Three of these explicitly address books (France, the Netherlands and Slovenia). All countries in this group exhibit high national OA advocacy and have a Plan S funder, with Lithuania being the sole exception. Lithuania has medium-level national advocacy and no Plan S funder.

At the RFO level, high policy framework countries are characterised by robust policies. At a minimum, they require OA for journals and recommend it for books. However, most countries (8 out of 11) go further, requiring OA for both journals and books (Lithuania, Luxembourg, the Netherlands, Norway, Slovenia, Sweden, Switzerland, and the UK).

RPO policies show more variation and are generally less stringent than RFO policies. For journal articles, 10 countries require OA, while Sweden recommends it. For books, three countries require OA (Switzerland, France and Slovenia), whereas seven countries recommend OA (Finland, Ireland, Luxembourg, the Netherlands, Norway, Sweden and the UK). One country (Lithuania) has no specific policy.

The **moderate policy framework** category consists of Austria, Belgium, Cyprus, Denmark, Germany, Iceland, Italy, Moldova, Malta, Poland, Portugal, Serbia, Spain and Turkey. These countries show a mixed approach, with some strong elements but also notable gaps.

At the national level, two-thirds of these countries (10 out of 14) have established national OA policies or strategies: Austria, Belgium, Cyprus, Denmark, Germany, Italy, Malta, Portugal, Serbia and Spain. Among these, four countries (Austria, Cyprus, Malta and Serbia) explicitly address books in their policies. National OA advocacy levels vary across the group. Half of the countries (7 out of 14: Belgium, Denmark, Malta, Moldova, Poland, Portugal and Turkey), demonstrate moderate levels of advocacy. Five countries (Germany, Spain, Austria, Cyprus and Serbia) show high levels of advocacy, while two countries (Iceland and Italy) have low levels. Finally, only a quarter of the countries have a Plan S funder (Austria, Italy, Poland, and Portugal).

RFO policies are present in 11 of the 14 countries, with varying degrees of stringency. Malta takes the least stringent approach, recommending OA for journal articles only. Austria, Germany, Moldova, and Turkey go a step further, recommending OA for both journal articles and books. A larger group, consisting of Iceland, Poland, Spain, Belgium, Denmark, and Portugal, requires OA for journal articles but does not mention books.

At the RPO level, policy implementation seems to be more widespread and generally stricter based on PALOMERA data, with all countries having policies in place. Six countries (Cyprus, Germany, Austria, Poland, Denmark and Portugal) recommend OA for both journal articles and books. Three countries and their RPOs (Iceland, Spain, and Belgium) take a firmer stance by requiring OA for journal articles, but do not address books. Serbia and Malta go a step further, requiring OA for journal articles while recommending it for books. The most comprehensive approach is taken by Italy, Moldova, and Turkey, which require OA for both journal articles and books.

The **low policy framework** category consists of Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Greece, Hungary, Latvia, Montenegro, Romania, Slovakia, and Ukraine. These countries generally have less developed OA policies.

At the national level, half of these countries (6 out of 13) have established national OA policies or strategies of a kind: Bulgaria, Latvia, Montenegro, Romania, Slovakia and Ukraine. Among these, three countries (Bulgaria, Slovakia and Ukraine) explicitly address OA books in their policies. National OA advocacy levels vary across the group. The majority, nine countries (Bulgaria, Czech Republic, Greece, Hungary, Latvia, Montenegro, Romania, Slovakia and Ukraine), demonstrate moderate levels of OA advocacy. Three countries (Albania, Bosnia and Herzegovina and Estonia) show low levels of advocacy, while Latvia stands out with high advocacy. Notably, none of these countries have a Plan S funder.

RFO OA policies are scarce, with only two countries (Estonia and Romania) having such policies. Both recommend OA for both journal articles and books.

At the RPO level, policy implementation is even more limited. Only Estonia seems to have RPO OA policies, recommending OA for both journal and book publications as far as PALOMERA has been able to decipher.

OA Book Funding and Support Mechanisms

Some countries with OA/OS policy documents state commitments to funding OA more broadly and/or OA books specifically more than others. For example, among countries categorised as **high OA book funding and support mechanisms**—Austria, Belgium, Finland, France, Germany, Luxembourg, the Netherlands, Norway, Portugal, and Switzerland—there is still great diversity in the extent to which policy documents refer to funding arms. One should also point out that commitments to funding OA are not always included in formal policy documents although research funding agencies usually mention these.

The above-mentioned countries frequently have their main national RFOs fund OA books, which are often mentioned explicitly in their policies. These policies include references to what types of research outputs they fund and how. Whilst some agencies, like the Dutch Research Council, have a national OA Book programme or a national OA Fund, as in Luxembourg, others, like the Research Council of Finland, advise researchers on how they can fund OA. When BPC funds are available, these are usually justified and defined; sometimes with caps.

With the exception of Austria and Portugal, RPOs in most of the countries in this group have policies that allocate funds for OA books, including BPCs. Across all countries in this category, there is broad RPO support to structurally fund some services and infrastructure, such as OAPEN, Open Book Publishers or Opening the Future through many academic institutions. In addition, certain countries, like France, have significantly invested in OA publishing infrastructure over the years.



The group with **moderate OA book funding and support mechanisms** consists of the Czech Republic, Denmark, Estonia, Ireland, Italy, Latvia, Lithuania, Poland, Romania, Spain, Slovenia, Sweden, Turkey, and the UK. This group of countries in OA book funding and support mechanisms is characterised by a generally low to moderate level of RFO BPC funding. Most countries in this group seem to have low RFO BPC funding, with a few exceptions like Lithuania (high) and Sweden/Slovenia (medium). Many seem to lack dedicated budgets for OA book publishing, although some allow for OA costs in project budgets. However, they typically do not have separate BPC funds. Nevertheless, there are some countries, such as the UK, with large government funding pledges for OA books.

In terms of RPO OA book publishing support, the moderate group generally displays moderate levels of engagement. Some institutional presses offer OA book publishing options, but often without dedicated BPC funds. Moreover, there is limited participation in international OA book initiatives.

Countries with **low OA book funding and support mechanisms** include Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Greece, Hungary, Iceland, Malta, Moldova, Montenegro, Serbia, Slovakia, and Ukraine. Most countries in this group have only limited or lack known BPC funding from both RFOs and RPOs. RPO support for OA book initiatives is also largely absent in most of these countries. There are, however, a few exceptions. For instance, Malta offers limited RFO funding for BPCs, although it does not provide RPO funding. Furthermore, Cyprus stands out with BPC funding available from commercial funders, despite the absence of support from RFOs and RPOs. Finally, Serbia, in the absence of dedicated funding, has developed a tradition of publishing books OA through repositories.

Overall Research Investment

The overall research investment has been categorised from low to high based on a country's level of research and development funding relative to their gross domestic product (GDP).

The **high overall research investment** group includes 10 countries that invest more than 2.24% of their GDP in research and development (Austria, Belgium, Denmark, Finland, Germany, Iceland, the Netherlands, Sweden, Switzerland and the UK). This threshold is higher than the average European Union level in 2022 (Eurostat 2022).

These countries demonstrate a strong commitment to research and innovation, allocating a significant portion of their economic resources to R&D activities. Belgium leads the group with the highest percentage (3.43%), closely followed by Sweden (3.42%) and Switzerland (3.36%). Even the country with the lowest percentage in this group, the Netherlands (2.31%), still exceeds the 2.24% threshold. This high level of investment suggests these countries prioritise scientific and technological advancement, potentially fostering a more robust research ecosystem and creating an environment conducive to innovation and academic pursuits, including open access initiatives.

The **moderate overall research investment** group includes 16 countries that invest between 1% and 2.24% of their GDP in research and development (Croatia, Czech Republic, Estonia, France, Greece, Hungary, Ireland, Italy, Lithuania, Luxembourg, Norway, Poland, Portugal, Slovenia, Spain and Turkey).

This group shows a wide range of investment levels within the moderate category. Slovenia leads the group with 2.13%, approaching the upper threshold, while Luxembourg is at the lower end with 1.04%. Countries in this category demonstrate a notable commitment to research and



development, although not at the same level as the high-investment group. This moderate investment suggests these countries recognize the importance of R&D in driving innovation and economic growth but may face constraints or different priorities that limit their ability to invest at higher levels.

The **low overall research investment** group includes 12 countries that invest less than 1% of their GDP in research and development (Albania, Bosnia and Herzegovina, Bulgaria, Cyprus, Latvia, Malta, Moldova, Montenegro, Romania, Serbia, Slovakia and Ukraine). This group represents countries with more limited resources allocated to R&D activities compared to their moderate and high-investing counterparts. This group shows a range of investment levels within the low category, from Serbia at the upper end (0.99%), just below the 1% threshold, to Albania at the lower end (0.15%).

The Academic OA Book Publishing Landscape

The **high Academic OA Book Publishing Landscape** category includes France, Germany, the Netherlands, Norway, Switzerland and the UK. These countries show a robust and diverse academic OA book publishing landscape, with a mix of major traditional academic publishers and innovative OA-focused publishers.

The **moderate Academic OA Book Publishing Landscape** category includes Belgium, Ireland, Lithuania, Poland, Portugal, Serbia, Spain and Sweden. These countries show a developing landscape of OA book publishing, with various initiatives and options available, but not as extensive as in the high category.

The **low Academic OA Book Publishing Landscape** category encompasses a diverse group of European countries, including Albania, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Greece, Hungary, Iceland, Italy, Luxembourg, Latvia, Malta, Moldova, Montenegro, Romania, Slovakia, Slovenia, Turkey and Ukraine. These countries are characterised by limited or non-existent options for OA academic book publishing outside of university presses. Some of the contributing factors include author preferences for international publishers, particularly in smaller countries like Luxembourg and Cyprus; insufficient incentives for local publishers to implement OA models, as seen in Bosnia and Herzegovina; the relative unpopularity of digital books in some markets, such as Croatia and Slovenia or a general scarcity of book publications in academia, as observed in Latvia.

Technical Infrastructure

The technical infrastructure has been rated low to high based on the following variables: Maturity of OA Repositories and National OA Book Infrastructure.

The **high technical infrastructure** category includes Austria, Belgium, Croatia, Denmark, Finland, France, Germany, Hungary, Iceland, Ireland, the Netherlands, Poland, Portugal, Serbia, Slovenia, Spain, Sweden and Turkey. This group is characterised by a highly mature landscape of OA repositories, with most RPOs having established institutional repositories. However, the development of national OA infrastructure specifically for books varies across these countries.

The majority (14 out of 18) demonstrate a moderate level of national OA infrastructure. These countries - Austria, Belgium, Croatia, Denmark, France, Germany, Hungary, Iceland, Ireland, the Netherlands, Poland, Serbia, Slovenia and Turkey - have developed national OA platforms, but



these are not specifically tailored for books. Instead, they often cater to journals or serve as general repositories.

A minority (4 out of 18) stand out with high-level national OA infrastructure specifically designed for books. Spain, Finland, Portugal, and Sweden have implemented dedicated national platforms or portals that facilitate the publication and dissemination of OA books.

The **moderate technical infrastructure** category includes Bulgaria, Cyprus, Czech Republic, Estonia, Greece, Italy, Latvia, Lithuania, Luxembourg, Malta, Moldova, Norway, Switzerland, Ukraine and the UK. These nations exhibit a notable dichotomy in their Open Access (OA) infrastructure development.

On one hand, the majority of these countries (11 out of 15, including Bulgaria, Switzerland, Estonia, Greece, Italy, Luxembourg, Moldova, Malta, Norway, Ukraine and the UK) demonstrate high maturity in OA repository development, which indicates that the majority of RPOs in these countries have established institutional repositories. The remaining four countries were categorised as being moderately mature in OA repository development (Cyprus, Czech Republic, Latvia, Lithuania), meaning that repositories have been established at some but not all RPOs.

However, when it comes to national OA book platforms, most of these countries have room to grow. With the exception of Lithuania, none have established comprehensive national infrastructures specifically designed for OA books. Lithuania stands out with a national repository that collects all OA outputs, though it doesn't specifically cater to books, earning it a moderate classification in this aspect.

The **low technical infrastructure** category includes Albania, Bosnia and Herzegovina, Montenegro, Romania and Slovakia. These countries are characterised by a highly limited number of institutional repositories and a lack of national platforms or infrastructure specifically for OA books.

Legal Framework

In a few instances, countries have introduced a Secondary Publishing Right to help ensure legal access to publicly-funded research outputs, including books. A Secondary Publishing Right refers to the right to republish publicly-funded research in an internet-searchable open access repository or elsewhere alongside its publication in academic journals (Knowledge Rights 2022). Those countries mentioned in the study include Austria, Belgium, Bulgaria, France, Germany and the Netherlands. For more on the topics, see the Knowledge Rights 21 landscape report (Knowledge Rights 2022).

Summary

The country analysis provided a comprehensive overview of the OA landscape across 38 ERA countries, focusing on several key aspects: Policy Framework, OA Book Funding and Support Mechanisms, Overall Research Investment, Academic OA Book Publishing Landscape, Technical Infrastructure, and Legal Framework.

The analysis revealed substantial variations among countries in their approach to and implementation of OA policies and practices, particularly concerning academic books. Countries



are categorised into high, moderate, and low groups for each aspect, highlighting the diverse stages of OA development across Europe.

In terms of **Policy Framework**, we observed a clear distinction between high, moderate, and low categories, with high-performing countries demonstrating comprehensive approaches at national, RFO, and RPO levels, while low-category countries often lack developed OA policies, especially for books. Moreover, examining **OA Book Funding and Support Mechanisms** we found that some countries show robust financial commitments through national RFOs and RPOs, while others have limited or no known BPC funding mechanisms. The **Overall Research Investment**, based on R&D funding relative to GDP, may further amplify these disparities as it likely influences the resources available for OA initiatives. The **Academic OA Book Publishing Landscape** adds another layer of complexity to this picture. We observed that while some countries have various options for publishing OA books, including major traditional publishing houses and OA-focused publishers, others have limited OA book publishing opportunities outside of university presses, which may suggest differing levels of market readiness and support for OA book publishing across the ERA. Furthermore, the **Technical Infrastructure** assessment revealed that while many countries have mature OA repository landscapes, the development of national OA book infrastructure varies considerably. Finally, examining the **Legal Framework** showed further disparities between ERA countries as we found that only a small group of countries have introduced Secondary Publishing Rights allowing for the republication of publicly-funded research in OA repositories, hence the majority of countries have not yet implemented such legal provisions to support OA publishing.

These findings underscore the complex and multifaceted nature of the OA book landscape across ERA countries. The substantial variations observed in policy frameworks, funding mechanisms, publishing options, technical infrastructure, and legal provisions highlight not only the progress made and challenges remaining but may also indicate diverse strategies in achieving OA and that countries are adapting their approaches to their specific contexts, resources, and priorities.

IV. Final remarks

From studying the hundreds of OA policy documents in close detail, both those including and excluding OA books, we can confidently say that there is significant potential for alignment within and across countries and stakeholder groups to facilitate the circumstances for OA book publishing. It is crucial to consider both the nuanced character and variations in OA book policy development across the ERA, but also remember that a substantial number of countries, funders and organisations have yet to implement an OA book policy. As such there are substantial steps to take in introducing initial OA book policies into many new organisations, as well as iterating existing ones as internal and external factors change over time. We believe that the evidence gathered will support a range of policymakers in making choices on what to consider and prioritise when developing an OA book policy, and how to formulate it.

The current status of OA book policies does not suggest that the environment is ready for highly standardised policies that have nearly identical content independent of country or institutional context. While one can see such tendencies among OA journal article policies, the environment of books is just so much more diverse and lacking maturity in terms of established OA practices that overtly extended standardisation would be ill-advised. OA book policies should be grounded in the context and circumstances that prevail in each institutional and country context, since our research



suggests that there is substantial variation in everything from publishing cultures to technological circumstances.

A lot of progress could be achieved by working towards more common terminology and definitions, which became clear through the in-depth analysis of policy contents. This would require work to be done within as well as outside the policies to achieve some consensus and mechanisms to make them actionable. Academic book formats, peer-review practices and their labelling, and OA models are just some of the larger aspects of variation that create ambiguity which likely does not have a positive effect on facilitating OA book publishing or OA policy development. More alignment can be found if all policymakers considered the PALOMERA essential elements to a strong OA book policy such as clear definitions, funding, open licensing, etc. The enablers and barriers to policymaking that we have surfaced should also help policymakers create more water-tight policies.

In summary, this research has been the largest body of research into OA book policies on a European scale. PALOMERA hopes that this evidence base will serve national and regional Open Access policymakers, research funding agencies and research performing organisations and their universities and libraries to further develop strong OA book policies with the view to provide wider access to more Open Access books.

Integration of findings into the OA Book Toolkit (OABT)

WP3 also contained a task which focused on the dissemination of project results by extending the existing OA Book Toolkit with a policy section mainly targeted at supporting RFOs and RPOs in approaching policy development tasks related to OA books. The task was “T3.3 Prepare materials for and launch the extended OA Book Toolkit (OABT)” and this section documents the process for how the work to build and launch this new content was achieved.

Toolkit: redesign, upgrades, new features

At the beginning of 2024, a dedicated Task Force of the Editorial Advisory Board of the OA Books Toolkit (OABT/Toolkit) took preliminary measures to prepare for making the PALOMERA findings (articles, case studies, descriptive examples) available in the Toolkit. These measures included preparing a survey for collecting feedback from users on how to improve the existing Toolkit. Based on the collected feedback and on other sources, the Task Force and OAPEN staff drafted a redesign plan for the Toolkit. The OAPEN team commissioned Trilobiet, the initial designer of the Toolkit, to implement the redesign plan and to upgrade the Content Management System to ensure high quality in presenting the public interface of the Knowledge Base.

Members of the Editorial Advisory Board of the Toolkit were actively engaged throughout the process of redesigning the Toolkit, which spanned over the first seven months of 2024, and they oversaw the new changes to be implemented. In addition to a new design, logo and upgraded software, the Toolkit boasts several new features: a translation functionality at the article level, the

ability to download the entire CC-BY Toolkit as a PDF generated in real time, accessibility compliance at level A of WCAG.

While technical work was underway, the Toolkit was reconceptualized to accommodate new users. Not only authors and supporting staff, such as librarians, have become interested in the Toolkit, but also policymakers and funders, among others. The new navigation system is simplified and provides structured content to different readerships for easy find and use with the aim of contributing to a better understanding of the OA books landscape and of aligning policies. Articles based on PALOMERA findings provide new dimensions to the Toolkit and shed light on the OA book policies in the ERA (from landscape articles, to best practices, case studies and insights into a policy life cycle) and on funding policies for OA books.

Toolkit articles based on PALOMERA findings

The workflow for the PALOMERA-based articles relied on editorial guides, style guides and writing system with a buddy originally developed for the Toolkit and adjusted for PALOMERA. This process and workflow ensured high quality of content. A professional editor was tasked with proofreading the articles before adding them to the Toolkit. PALOMERA Toolkit authors were introduced to the workflow and supporting documents in dedicated kickoff meetings. Through iterative consultations with the WP3 group during the spring months, ideas were explored and collected in preparation for writing the PALOMERA findings in the shape of Toolkit articles – concise and helpful content, relying on the latest research done on OA book policies and available funding in the ERA to further the PALOMERA goals.

At an initial stage, the ideas collected summed up to around 15 potential articles for the Toolkit, relating both to OA book policies, and to funding for OA books. Some of these ideas relied on interpretative work of a large, multilingual sample of documents from the Knowledge Base and thus, required more time to research and write. Other article ideas relied on surveys yet to be conducted among funders and policy makers. Yet other articles appeared ready to be written, based on work that had been accomplished earlier in WP2. Assessing the timelines and degree of analysis involved in writing the articles, it was decided to group the articles into two categories and kick off the writing process twice: the first kickoff meeting for writing Toolkit articles took place in early May and the second one in late May, gathering together PALOMERA researchers from WP3 and beyond. The first batch of articles relied on research that had been almost completed, the second batch required a longer timeline for articles to anchor into ongoing research. The following articles were included in the updated toolkit:

- Attitudes towards open access books in the European Research Area
- Barriers to OA Adoption in Book Publishing: Insights from Interviews with Experts and key stakeholders
- Comparing countries with policies vs countries without, using PESTLE-based codes to observe the difference (not available yet)
- Finding funding for your OA book
- Funding mechanisms for open access: research performing organisations (RFOs)
- Funding mechanisms for open access books: research performing organisations (RPOs)
- Key elements of an open access books policy

- Landscape of open access book policies and funding mechanisms
- Needs, obstacles and challenges of policymaking for open access books
- Overview of literature on OA (book) policies
- Policy life cycle for open access books
- Processes surrounding open access book policy formulation and implementation
- The hindering aspects of OA access
- The research life cycle in relation to the publication of an OA book

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Appendix 1 – Interview guide

Demographics

Gender: female / male / other / prefer not say

Stakeholder type (multiple choice):

- **policy makers**
- **research funding organisations**
- **research performing organisations**
- **publishers**
- **librarians and infrastructure providers**
- **other (specify)**

Country the interview is focused on:

[In the case of group interviews, provide the information for all participants]

Interview questionnaire

This interview is conducted as a part of the PALOMERA project and focuses on policies regarding open access to academic books. In the interview we try to assess different aspects of the issue, that is political, economic, social, technological, legal and environmental.

1. General questions

Let us begin with a warm-up question.

- 1.1. Could you briefly introduce yourself and tell me how your professional experience relates to the issue of open access books?

Now, I would like to ask some contextual questions focused on the **national policies** in your country.

- 1.2. The PALOMERA project defines academic books as scholarly, peer-reviewed, books including: monographs, book chapters, edited collections, critical editions, and other long-form scholarly works.

Does this definition differ from how the academic books are defined in your country, or your institutional context, or your discipline?



- 1.2.1. *[Follow-up]* Do you feel that anything is missing in that definition? E.g. some type of publication that should be considered as an academic book.
- 1.2.2. *[Follow-up]* Do books need to be peer-reviewed to be considered academic in your country?
- 1.3. Before I ask about your institution specifically, could you tell me what is the current status of national or regional policies or regulations concerning Open Access books in your country? Is there a national or regional policy?
- 1.4. Are there incentives for OA publishing in the national/regional system?

A note that we are shifting our focus now. The remainder of the questions will focus on your immediate institutional context (**note for the interviewer: does not apply to policy makers who are asked about the national context throughout the interview**)

2. **Political** component

This section focuses on the Political dimension of OA books publishing and policy. We focus on the process of the policy implementation, including the agenda-setting, policy formulation and evaluation.

- 2.1. Let me begin this section with questions about the relationship between the national (or regional) and institutional policies.
 - 2.1.1. Are there any forms of support for policy creation or implementation from the institutions or central/ministerial or governmental level? E.g. recommendations, workshops, grants?
 - 2.1.2. Who participates in the policymaking process? Are there consultations? If so, who is/was taken into consideration., e.g. what form of consultation has taken place?
- 2.2. Is there an open access policy regarding academic books in your institution? (**Note: policy makers are asked here about national or regional policies**)
 - 2.2.1. **IF YES (THIS ALSO CONCERNS A SECTION ON BOOKS IN THE GENERAL OA POLICY)**
 - 2.2.1.1. Could you describe step-by-step how the policy was conceived, drafted, agreed upon, and implemented?
 - 2.2.1.1.1. *[Follow up]* When was it established? Who proposed the idea?
 - 2.2.1.1.2. *[Follow up]* What was the process of drafting it? Who was involved and who chose those involved?



2.2.1.1.3. Were there consultations, debates? What measures were discussed?

2.2.1.1.4. *[Follow up]* How was the policy implemented? Who was responsible for implementation?

2.2.1.2. What were the main difficulties to create and implement the policy?

2.2.1.3. Was the policy updated and/or do you perceive a need for such an update currently?

2.2.2. IF THERE IS POLICY BUT NOT EXPLICITLY ABOUT BOOKS

2.2.2.1. To what extent the existing OA policies cover academic books?

2.2.2.2. During the process of creating those OA policies, were there any attempts at addressing books specifically?

2.2.3. IF NO

2.2.3.1. Let us talk then about the prospect of establishing such a policy. Are there any existing policies or recommendations that might influence the development of open access book policy in the foreseeable future?

2.2.3.2. Has the discussion about OA books policy already started in your institution, or has it been taken into consideration?

3. Economic component

In this section, we focus on the economic dimension of OA books publishing now, related to the funding instruments and models.

3.1. **General funding model.** Is there a difference in funding opportunities for OA and non-OA books??

3.1.1. **[If there is a policy]** Is there a clear link between the policy and funding to implement it?

3.1.2. Is there support (in the policy or elsewhere) for alternative business models, e.g. diamond, author accepted manuscript, delayed OA etc.

3.2. What are the **sources** of funding for OA academic books in the country on national/regional and institutional level?



- 3.2.1. [Follow up if not addressed]: How is the level of financial support determined/what are the criteria? Is it different if the books are not published OA?
- 3.2.2. Is the funding from those sources sufficient to publish OA books, e.g. based on Book Processing Charges, or requires the institution to look for additional funds or alternative publishing model.
- 3.2.3. Does the existing system incentivise authors to publish OA books?
 - 3.2.3.1. [Follow up] Are those resources available for scholars on all career levels, or only to specific groups?

3.3. Additional question depending on the stakeholder group

- 3.3.1. **For FUNDERS: [if they have an OA books policy]** How do you gain knowledge about issues related to implementation of the policy?
- 3.3.2. For PUBLISHERS:
 - 3.3.2.1. Does OA have an impact on book sales?
- 3.3.3. For RPOs: Who implements the funding in your institution, and what is the process? Does your institution have competencies and processes regarding distribution of funding, e.g. OA books publishing cost monitoring system?

4. Social component

We now focus on the Social dimension of OA books publishing and policy; e.g: publication venue and format priorities, research assessment, disciplinary differences, publication languages.

- 4.1. What is the role of academic books (in general) in national, institutional systems research assessment? Are OA books taken into consideration in the research performance assessment?
 - 4.1.1. [Follow-up] Are there differences in how much credit is given between different types of academic books (e.g. edited volumes, single author monographs, scholarly editions?).
 - 4.1.2. [Follow-up] Are there any differences depending on the discipline?
 - 4.1.3. [Follow-up] Are there any incentives to publish in the local language or rather in English?
- 4.2. Is there a relationship between open access and the perceived prestige of the publication? (e.g. OA books considered less or more prestigious).



- 4.2.1. *[Follow-up]* Do publishers considered prestigious in your country offer open access options?
- 4.3. What are the key arguments used in the debates around OA to academic books in your country?
 - 4.3.1. *[Follow-up]* Do such topics as “bibliodiversity”, “multilingualism”, “support for smaller, ‘long-tail’ academic publishers” appear in the debate? If so, what are the arguments in the discussions?
 - 4.3.2. *[Follow-up]* Does the topic of OA books appear, or even get any momentum in the public discourse? (on the side of lack of/existence of official OA policies)
 - 4.3.3. *[Follow-up]* Do ethical considerations, such as equity, public funding focused on society, providing access to research funded with taxpayer’s money etc., appear in such discussions?

5. **Technological** component

In this section we ask about the Technological dimension of OA books publishing and policy, this focuses on the infrastructure; e.g: publishing platforms, content and metadata standard, preservations.

- 5.1. Is there any underlying technical infrastructure that might support the policy (or may support it when implemented)? Is it located on the level of national Research Infrastructure (e.g. publishing portal) or locally within research performing organisations or publishers?
 - 5.1.1. *[Follow-up]* What tools or systems are used for policy monitoring (or may be useful if a policy for policy development, implementation, evaluation) etc., e.g. for measuring impact and policy compliance etc.
- 5.2. Is there any technological support for innovative or experimental genres, i.e. academic books, beyond simple PDF/html formats (e.g. digital scholarly editions, extended monographs, linking publications with underlying data)?

6. **Legal** component

In this section we ask about the Legal dimension of OA books publishing and policy; e.g: regulatory requirements, copyrights, licensing.

6.1. **If there is a policy**

- 6.1.1. Is the implementation of the policy monitored? If so, by whom? Are there any results you can share?



6.1.2. Are there any consequences for non-compliance, (e.g. suspension of funding etc.)?

6.1.3. Is there a specific license required for OA books to be compliant with the policy? If yes, how did you decide on that specific license?

6.2. If there is no policy

6.2.1. What are the legal documents and policies guiding open access to books?

6.2.2. Are open licenses promoted? If so, which ones?

7. Environmental component

In this section we ask about the environmental dimension of OA books publishing understood narrowly as research environment and broadly as physical environment.

7.1. How do you assess the progress of the transition to open access books and what needs to be done to make it progress better?

7.2. In what ways, research environment of the institution is or should be supportive for OA academic books? By research environment we mean general conditions and environment for supporting research and enabling impact within the institution.

7.3. How is the digital only/digital and print issue perceived by stakeholders? What is the role of the printed book that is also available in OA?

7.4. Do you use environmental arguments to promote open access books?

8. Closing remarks

8.1. Is there anything you would like to add to the issue of Open Access Book policies in your institution or country which we might have omitted, but it is important?

Thank you very much for your time and participation.

