



DIAMAS

Developing Institutional Open Access
Publishing Models to Advance
Scholarly Communication

IPSP Sustainability Research Report

Authors: [Victoria Brun](#), CSI CNRS, France; [David Pontille](#), CSI, CNRS, France; [Didier Torny](#), CSI, CNRS, France

Contributors (in alphabetical order): [Mikael Laakso](#), TSV, Finland; [Iva Melinščak Zlodi](#), University of Zagreb Faculty of Humanities and Social Sciences, Croatia; [Vanessa Proudman](#), SPARC Europe; [Milica Ševkušić](#), EIFL, Lithuania.

Reviewer(s): [Fernanda Beigel](#), CONICET, Argentina; [Johan Rooryck](#), ESF-coAlition S, Belgium.



Funded by
the European Union

DISCLAIMER

The project has received funding from the European Union's Horizon -WIDERA-2021-ERA-01 research and innovation programme.

Disclaimer- "Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or [name of the granting authority]. Neither the European Union nor the granting authority can be held responsible for them."

This deliverable is licensed under a Creative Commons Attribution 4.0 International Licence



Consortium overview

AMU	UNIVERSITÉ D'AIX MARSEILLE	FR
PVM	PROTISVALOR MEDITERRANEE SAS	FR
OPERAS	OPEN ACCESS IN THE EUROPEAN RESEARCH AREA THROUGH SCHOLARLY COMMUNICATION	BE
CNRS	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
EIFL	STICHTING EIFL.NET	NL
FECYT	FUNDACIÓN ESPAÑOLA PARA LA CIENCIA Y LA TECNOLOGIA, F.S.P., FECYT	ES
TSV	TIETEELLISTEN SEURAIN VALTUUSKUNNASTA	FI
LIBER	STICHTING LIBER	NL
UB	UNIVERSITAT DE BARCELONA	ES
UniZD	SVEUČILIŠTE U ZADRU	HR
FFZG	SVEUČILIŠTE U ZAGREBU FILOZOFSKI FAKULTET	HR
Science Europe	SCIENCE EUROPE	BE
EUA	ASSOCIATION EUROPÉENNE DE L'UNIVERSITÉ	BE
OASPA	STICHTING OPEN ACCESS SCHOLARLY PUBLISHERS ASSOCIATION	NL
UiT	UNIVERSITETET I TROMSØ - NORGES ARKTISKE UNIVERSITET	NO
CNR	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
UGOE	GEORG-AUGUST-UNIVERSITAT GOTTINGEN STIFTUNG OFFENTLICHEN RECHTS	DE
SPE	STICHTING SPARC EUROPE	NL
UU	UNIVERSITEIT UTRECHT	NL
EKT	ETHNIKO KENTRO TEKMIRIOSIS KAI ILEKTRONIKOU PERIECHOMENOU	EL
IBL PAN	INSTYTUT BADAŃ LITERACKICH POLSKIEJ AKADEMII NAUK	PL
ESF	FONDATION EUROPÉENNE DE LA SCIENCE	FR
JISC	JISC LBG	UK
DOAJ	INFRASTRUCTURE SERVICES FOR OPEN ACCESS C I C	UK

Document overview

Project Acronym:	DIAMAS
Project Name:	Developing Institutional Open Access Publishing Models to Advance Scholarly communication
Project No:	101058007
Start Date:	1/09/2022
End Date:	31/09/2025
Contributing WP	WP5
WP Leader:	Vanessa Proudman
Deliverable identifier:	
Contractual Delivery Date: 03/2024	Actual Delivery Date: 03/2024
Nature: Report	Version: X.X Draft/Final
Dissemination level	PU/PR

Version history

Version	Created/Modified	Comments
0.0	March 2024	
0.1		
0.2		
0.3		
1.0		

Acronyms

IPSP	Institutional Publisher and Service Provider
IP	Institutional Publisher
SP	Service Provider
RFO	Research Funding Organisation

Table of Contents

Consortium overview	2
Document overview	3
Version history	3
Acronyms	3
Table of Contents	4
Table of figures and tables	6
Executive Summary	7
Introduction: Towards a definition of sustainability	9
Methodology	10
Literature review	10
Questions from the DIAMAS survey	11
Follow-up survey about funding practices	11
Focus groups	12
Interviews	12
Limitations	13
Available data and GDPR restrictions	13
The state of knowledge: Insights and gaps from the literature review	13
What does an IPSP do and for whom?	16
The heterogeneity of IPSP funding models	23
Interactions between Diamond and other models	24
Diversity of funding forms for Diamond IPSPs	27
External funders: the importance of national public funders	33
Funding models: four IPSP portraits	37
The costs and constraints of income management	40
Formalising accountability	40
Constraints from the outside: Requests from funders	43
Income reporting and fundraising	45
Reporting	46
Fundraising	47

The centrality of the workforce: Contractual, in-kind and voluntary work	49
The cost is in the eyes of the beholder: In-kind support and voluntary work	49
Negotiating in-kind support: The official and unofficial IPSP organisation	52
Underlying infrastructures and collaboration	56
Accessibility as a case for IPSP collaboration	56
Local collaborations: In-kind, voluntary and outsourced support	58
Infrastructures: From users to donors	61
Collaboration and hopes for the future	62
Stability and future outlook	63
Sustainability and funding challenges	63
Knowing and controlling the IPSP future	67
Envisioning the funding landscape: Who should pay for IPSP services?	70
Conclusions	75
Recommendations	77
References	79
Appendix	84

Table of figures and tables

Figure 1. Publishing and service providers (https://zenodo.org/records/7378067).	17
Figure 2. Proportion of Diamond outputs within surveyed IPSPs (N=383)	24
Figure 3. Clusters resulting from the Hierarchical Clustering on Principal Components on the MCA model	38
Figure A1. Axes inertia of the MCA model	84
Figure A2. Variables cloud of the MCA model, axes 1 and 2	85
Figure A3. Variables cloud of the MCA model, axes 1 and 3	86
Table 1. Proportion of journals, books and other outputs under a Diamond model within IPSPs	25
Table 2. Estimated proportion of IPSPs content published in OA	26
Table 3. Number of funding forms that Diamond IPSPs rely on	28
Table 4. Internal funding forms of Diamond IPSPs (in %)	29
Table 5. External funding forms of Diamond IPSPs (in %)	30
Table 6. Additional funding forms of Diamond IPSPs (in %)	31
Table 7. Number of funders declared by IPs (N=546) and SPs (N=139)	33
Table 8. National funders cited 5 or more times by IPSPs	34
Table 9. Reasons for why IPSPs look for or apply for time-limited funding	36
Table 10. Existence of an approved annual budget	40
Table 11. Monitoring and administering the IPSP's annual income and expenses	41
Table 12. Transparency of the revenue streams on the IP website (in %)	42
Table 13. Possibility for IPSPs to have a financial buffer	43
Table 14. Requests from IPSP funders	44
Table 15. Reasons for why IPSPs do not look for or apply for time-limited funding	47
Table 16. Monetary and in-kind resources IPSPs rely on (in %)	52
Table 17. In-kind support from the parent organisation	53
Table 18. Forms of external services	59
Table 19. IPSP annual budget	64
Table 20. Crossed table of the evolution of IPSP activities depending on the evolution of their resource volume (in %)	64
Table 21. Technical challenges posed by a lack of resources	65
Table 22. Agreement with statements on the financial situation of IPSPs	67
Table 23. Activities IPSPs would fund with more permanent funding	68
Table 24. Activities IPSPs would fund with one-time funding	69
Table 25. Desired funding sources for academic journals	71
Table 26. Desired funding sources for academic books	72
Table 27. Undesirable funding sources for academic journals	73
Table 28. Undesirable funding sources for academic books	74

Executive Summary

Understanding the sustainability of institutional publishers and service providers (IPSPs) constitutes a key step in the DIAMAS project. This research report has one main objective: to investigate what financial sustainability means for institutional publishing in Europe and the workforce involved in it.

To fulfil these objectives, we undertook a range of research methods to gain a more thorough understanding of the complex landscape of institutional publishing and its different forms of sustainability. The analysis draws on four types of data: a literature review of economic and financial aspects of institutional publishing, two quantitative surveys (the DIAMAS survey and a follow-up survey focusing on funding practices), 6 focus groups with national-based IPSPs, and 15 interviews with a range of diverse institutional publishing representatives.

This report is organised in 8 sections. In the first one, we explain our methodology in data collection and analysis. In section 2, we look into academic and grey literature on the topic. In section 3, we categorise the missions of the institutional publisher or service provider, since what they stand for and how they operate influences their approach to sustainability. Depending on their operations, IPSPs do not foster the same type of sustainability. In section 4, we examine the funding models of IPSPs. We look at full Diamond IPSPs, mixed-models IPSPs (i.e. who publish or provide services for Diamond and non-Diamond outputs) and the landscape of European and national funders and sponsors. In section 5, we discuss the constraints that arise from managing income on several aspects: accountability tasks, funder requests, reporting and fundraising. In section 6, we highlight the essential ability to have a workforce to cope with these changes. In section 7, we underline the central role of collaboration and shared infrastructures that shoulder the burden of sustaining the ecosystem. Finally, in section 8 we detail the ability of IPSPs to take a medium or a long-term view on their activities, and we outline their desirable and avoidable futures.

Several results can be drawn from these investigations. Diamond OA is an ecosystem in which institutional publishers and service providers (IPSPs) interact and perform a range of specific tasks. Our investigations show that there is no definitive set of tasks that all institutional publishers share. We rather see a combination of options and services that are distributed between the IP, its parent organisation, service providers, and academic personnel. Institutional publishers are diverse in nature and as a result of their missions, size and service provision, some of them are bound to upscale while others will seek to sustain their current size. The sustainability options available to them and the choices they make are also influenced by these factors.

The population of IPSPs that responded to the DIAMAS survey utilises diverse funding models. Some mix subscription fees or APC with Diamond funding streams. For the majority of institutional publishers or service providers who are fully Diamond OA, the

role of the parent organisation is paramount for their basic support, especially in the form of in-kind support such as personnel, and services. The landscape of funders, sponsors and donors who support institutional publishing in Europe is very clear-cut. Parent organisations and public national or regional funders are the main local supporters. Research funding organisations and international funders, however, currently marginally support non-commercial Diamond OA publishing needs, in contrast to the significant support that they provide to commercial publishing through APCs and BPCs.

Budget management is a secondary task for IPSPs compared to those of commercial publishers, where this is crucial. Although only a minority has a financial buffer and a small majority has an approved budget, almost all track their expenses and revenues in some form, especially in the interests of their funders, sponsors and donors. One should point out that grants often place a burden on IPSPs as the search for funding, its management and reporting activities weigh on them. Moreover, a strong minority (40%) of IPSPs use time-limited grants to run their operations.

The workforce is more central to the sustainability of an IPSP than revenue streams. However, the form this workforce assumes is often unclear, since voluntary, in-kind or paid work for a given task depends on institutional definitions. As a result, part of the workforce is often employed outside of the boundary of the IPSP and within the parent organisation, academic bodies or infrastructures, which means that the IPSP has to negotiate with different institutions for resources.

IPSPs have a clear view of the challenges they face. The main ones are the need for more financial resources, the lack of stability and permanence in personnel, and the dependence on parent organisations. With more resources, they would primarily invest in personnel to extend their services, notably on publishing production tasks. They generally agree on the vision of tomorrow's Diamond OA funder landscape: rejecting author-pays solutions, reinforcing current funders (public bodies and institutions), and the need to involve research funding organisations as they also call for the provision of more stable and longer-term funding. Sustainability cannot be considered at the level of the individual institution alone.

Finally, all those who have helped to sustain the archipelago of institutional publishers and service providers over the years must be recognised for their continued support. It is in particular universities, academic libraries, research institutions, and public institutions that have played a pivotal role in sustaining institutional publishing. We highly recommend that these organisations continue to commit to providing fixed and permanent funding for local initiatives to uphold and stimulate bibliodiversity. We recommend any action that will bring greater recognition to the work carried out, dedicated budgets, and support from all departments and services at the parent organisation for the greater sustainability of a more equitable scholar-led Diamond OA ecosystem. Going forward, it is also vital to support infrastructures that serve many small to mid-sized IPSPs and efforts that connect and build capacity among them, where resources are shared to make this ecosystem more technically and financially sustainable in the mid to long term.

Introduction:

Towards a definition of sustainability

It is essential to describe what we mean by financial sustainability to appropriately frame the work we did to understand this area over the last 18 months. The complex nature of the term “sustainability” is already reflected on a linguistic level, as it has different connotations in different languages. Take the Croatian and Serbian “održivost”, German “Nachhaltigkeit”, Finnish “kestävä”, Swedish “hållbar” or French “durabilité”, for example. Some terms relate to long-term survival without clear ideas of independent sustainability, whereas others imply durability and persistence. Others focus on living without resource depletion or harm to the respective ecosystem. It is above all, vital to know the object or unit of sustainability in our institutional publishing context, i.e. do we speak of a journal, a publisher, a business model, or a broader publishing ecosystem? And who holds the financial, legal, moral and social responsibility to sustain it? Is it a specifically defined stakeholder or a group of stakeholders?

Work package 5 of the DIAMAS project focuses on the financial and workforce aspects of sustaining institutional publishers (IPs) and service providers (SPs). The literature review in section 2 of this report also shows the diversity of approaches to sustainability in publishing practices. Sustainability has to do with simple cost recovery for some IPSPs, and it means enabling reinvestment, guarding against “hard times”, or even keeping high profit margins for others. The perception of sustainability becomes narrower if we only investigate it in the context of diamond institutional publishing. The character of sustainability also depends on the mission of the institutional publisher or service provider, which is described in section 3.

Some publishing service providers (SP) develop or update their services to follow new standards or to scale up. Section 4 will examine their funding models and the landscape of European and national funders and sponsors. Sustainability may also relate to maintenance, which involves preserving the essence of an entity while adapting to ever-changing circumstances and sometimes unexpected external influences. Section 5 will develop this view on the specific topic of income management: how to adapt to funders and donors demands and what consequence these funding operations have on the IPSP sustainability.

Section 6 will highlight the essential ability to have a workforce to cope with these changes. In the Diamond OA context, shared infrastructures that disseminate, provide persistent identifiers or archive often shoulder the burden of sustaining the ecosystem. This support allows individual entities to focus on other dimensions of their sustainability, such as producing new content and managing people and finances. Section 7 discusses the role of collaboration and infrastructures.

Finally, the ability to take a medium or long-term view is a crucial dimension of the sustainability of a service or organisation. Section 8 will detail the essential elements of this and both the desirable and avoidable futures for IPSPs.

Taking all these elements into account, we conclude with the following definition of sustainability:

The capacity to develop and implement feasible medium-term resource strategies that facilitate the consistent execution of editorial tasks, incorporating essential developmental elements for adhering to globally recognised quality standards in editorial work and publishing, all while guaranteeing the continuous accessibility of published content. This capacity can depend on the IPSP's internal resources and expectations, the contextually available funding and workforce sources, and the effectiveness of the strategies deployed.

Methodology

We undertook a range of research methods to gain a more thorough understanding of this complex landscape of sustaining institutional publishing.

Literature review

The DIAMAS project partners started by searching for references to economic and financial aspects of institutional publishing through a wide range of databases, focusing on Google Scholar and Crossref. We also used front and back citation tracking to find relevant sources, compiling 80 documents. Considering the small size of the literature, we chose to be as inclusive as possible under the condition that the full text of the document was available in open access. We included texts based on document types or peer-review criteria but excluded posters or abstracts. Unfortunately, some important documents related to the history of open access and publishing are no longer available. Just like the vanished journals studied by Laakso et al. (2021), in some cases, we only found references and some invalid URLs and decided not to include them in the Zotero living library.

Consequently, our literature review includes reports, academic articles, book chapters, and web pages. Both the types of documents and their scopes are diverse, e.g., ranging from a landscape study on several countries to a specific case study on a national ecosystem, and to solicited experience from a single service provider. Section 2 provides the detailed results.

Questions from the DIAMAS survey

The DIAMAS project conducted a survey to describe the landscape of institutional publishing in Europe.¹ This report will draw on two specific aspects of this landscape:

- Firstly, on funding and accountability practices of IPSPs; and
- Secondly, looking at respondent demographics such as the country, the publishing volume, or the existence and type of the parent organisation.

We drew on 685 responses from the DIAMAS survey. Even if the sample is not representative of the general population of IPSPs, the data provide a comprehensive and contextualised understanding of the diversity of institutional publishing practices. The European landscape is very diverse as IPSPs can be based at learned societies, research performing organisations, their libraries or departments or at other non-profit or for-profit organisations.

Follow-up survey about funding practices

The WP5 team of the DIAMAS project designed a follow-up survey to investigate the funding practices of IPSPs more deeply. We examined the proportion of Diamond publishing within the same IPSP by output type, and the capability to plan for the future. We also enquired about spending priorities, reasons for fundraising and the amount of work required, and asked about views on institutional publishing funding.

The project sent the follow-up survey to respondents of the first survey who agreed to be contacted. Emails used unique identifiers, enabling us to merge databases and easily recover information gathered from the first survey for more advanced cross-analysis. This follow-up survey was open during the last two months of 2023 and successfully garnered 469 answers. After cleaning (mainly deleting blank surveys and duplicates), we retained 383 relevant answers, a response rate of 56%.

The follow-up survey sample is very similar to the original one. This suggests that the distribution of the questionnaire did not cause any distortion. The proportion of SPs vis-à-vis IPs is slightly higher (25% against 20%), as well as for affiliation to a parent organisation (61% against 56%). The country distribution is also comparable. Northern Europe and Western Europe are a bit more represented to the detriment of. There is no size category of IPSPs that disappears in the follow-up survey: there are slightly less tiny budget IPSPs (2.9% have less than 1K€ against 4.1%), but no significant difference in terms of FTE number.

¹ The results of this survey and the sample characteristics are described here: <https://zenodo.org/records/10022184>

Focus groups

In parallel, we conducted six focus groups with national-based IPSPs, once again within the population of the first DIAMAS survey. This qualitative method enabled us to emphasise the common practices of IPSPs regarding their financial aspects and to highlight differences by discussing their values and organisational context (Acocella, 2012).

These focus groups were centred around the types of funding sources and fundraising practices of participants, with some description of changes in revenue streams and funding sources over the past three years. The discussion was organised around three main topics:

- practices related to budgeting, financial management and reporting;
- relations with platforms and technical infrastructures; and
- looking ahead to specific desirable future developments.

As national contexts are crucial to understanding IPSPs practices, we organised national focus groups conducted in several native languages to ease communication, hosted by DIAMAS members from Croatia, France, Finland, Serbia, Spain, and the United Kingdom. We selected countries with the most respondents in the DIAMAS survey to stay consistent with the quantitative data generated from the two surveys. Focus groups brought between 4 and 6 persons together via online video conferencing. Sessions were designed to last one and a half hours.

Interviews

The qualitative part of our investigation was also supplemented by in-depth interviews with certain IPSP representatives. Such a method helps to focus on specific aspects of a given topic in a descriptive mode of discussion. Once recorded and transcribed in full length (in our case through Whisper), this discourse is coded and analysed.

Interviews were designed to gather particular information about the financial sustainability of IPSPs. The main topic of discussion was the distribution of work within the organisation, notably the role of in-kind, voluntary or unpaid work and its part in publishing. We unravelled the various tasks performed, i.e. their content, status, recurrence, and pros and cons. As a result, we retrieved more comprehensive information that covered blind spots in the surveys and focus groups.

We chose to target two populations of IPSPs based on the responses to the DIAMAS survey. On the one hand, we selected the few SPs who stated that they had numerous funding streams on an international scale (Q18) to explore the specific problems and solutions they were facing to manage these streams. On the other hand, we selected from the quarter of respondents who indicated that in-kind work is much more important than monetary resources for them (Q19: persons who answered “high” or “Very high” for non-monetary resources and “very low”, “low”, “neither high nor low”, “not

applicable" for monetary resources). We then chose to favour institutions outside of the countries of the focus groups for more diversity. These interviews (n=15) lasted between 40m and 70m and were conducted in English:

- diverse financial streams: one Canadian SP and two Dutch participants.
- the importance of in-kind contributions: two Polish, two German, two Italian, one Austrian, one British, one Danish, one Irish and one Swedish participant.

Limitations

Three of the five methods are built upon the DIAMAS survey sample. This sample is probably not representative of the general population of IPSPs, though no comprehensive registry beyond the [DIAMAS one](#) has so far been established. A few Southern and Central Eastern European countries have much higher response rates because they are more inclined to publish Diamond OA, are well-organised on a national level, or are due to connections with a partner from the DIAMAS consortium. Nevertheless, the qualitative investigation and the literature review provided enough information to contextualise IPSPs practices according to their countries, legal status, or disciplines.

Available data and GDPR restrictions

The DIAMAS research data are bound by the constraints of the GDPR and the restrictions of the DIAMAS Data Management Plan. We are required not to share qualitative data, which is why interview extracts and focus group reports are anonymised. The following reusable data has been shared:

- DIAMAS Survey aggregated data available [here](#)
- Bibliographic references selected in an open [Zotero database collection](#)
- Data from the follow-up survey.

The state of knowledge: Insights and gaps from the literature review

Establishing a state of knowledge on "institutional publishing" was harder than we had initially anticipated. The concept of institutional publishing is very rare in the literature, at least until the appearance of outputs from the DIAMAS project or sister projects (CRAFT-OA and PALOMERA). Similarly, the concept of "sustainability" is rarely defined and related to concrete funding models in the literature or, more generally, the means of covering the costs associated with publication activities.

As a result, we have reviewed different types of literature, ensuring that these documents deal centrally with the issues covered by this report. We rely here on the following broad and partially overlapping classification, which focuses on the general orientation of the documents:

Landscape study	provides an overview of the situation in different contexts (countries, journals, etc.).
Experience	narrates the experience of a journal, platform, and publisher, especially on funding and workforce matters.
Business model proposal	formulates a business model, which is envisioned, has been developed or tested.
Funding scheme	a funder or a third party shares the way it funds.
Funding typology	provides a list (potentially prioritised) of the different funding channels/schemes.

Landscape study. Researchers often produce this type of document, developing analytical views on a given part of the publishing system. Some of these date back to the mid-twentieth century, but we only selected the ones focusing on open access and institutional publishing. One of the first major studies was carried out by Edgar and Willinsky (2010). They conducted a survey of journals using OJS, with almost 1,000 responses. It highlighted three significant results. Firstly, a wide variety of types of income can exist, ranging from subscriptions to fundraising, membership fees, or subsidies. Secondly, the importance of unpaid labour, which is in the majority for all tasks. Finally, the majority of journals break even, with very few examples of profits or major deficits.

Several landscape studies have been carried out in recent years including the Open Access Diamond Journal Study, which provided results (Bosman et al., 2021) and recommendations (Becerril et al., 2021). Two national studies stand out. On the one hand, the landscape of book publishing in Croatia by Melinščak Zlodi (2023) shows that despite major subsidies from the Croatian government, open access remains marginal in this national landscape. On the other hand, Tauber et al. (2024) describe the conditions under which diamond journals operate in Germany. These landscape studies highlight the very contrasting situations between recurrent funding and staff attached to a given journal. They also stress the states of survival based on provisional grants or even entirely voluntary work. These studies regularly demonstrate the diversity of resources, which affects sustainability, the lack of unified funding models, and the importance of national funding schemes in Europe (Laakso and Multas, 2023).

Experience. This literature is of the narrative type, as it tells the origin story of a journal, the costs it faced, the distribution of workload and the revenues found. We only selected the cases of Diamond publishing here. These narratives show common

threads with the crucial involvement of the editorial teams, the search for minimal costs and the importance of infrastructures. Beyond these stories, there are two examples of institutional publishing, with full support from parent organisations in Israel and Scotland, which see Diamond publishing as an important educational basis for students (Wojturska, 2023; Halvi, 2018) and an example of experience from large infrastructures such as Redalyc (Becerril-Garcia and Aguado-López, 2018).

Business model proposal. This literature adopts the point of view of the organisation that publishes or provides services. One of the earliest proposals and one of the most successful, that of Prosser (2003), was based on a journal published by two learned societies: *Florida Entomologist*. Although he never used the term, this was indeed the idea of hybrid open access, popularized by Springer's "open choice" scheme and adopted by all commercial publishers. In contrast, Crow's (2006) proposal to establish publishing cooperatives for learned societies has not been implemented, even though national OA publishing platforms that act as SPs can be seen as part of a legacy. Other business models include the Freemium developed by OpenEdition and presented by Mounier (2012), and the consortium funding model of the Journals.fi platform described by Ilva (2018) or the Direct to Open for Monographs designed by MIT Press (2021).

Funding scheme. This literature adopts the point of view of institutions that sponsor or fund institutionally-based publishing. We have not included the description of open access funds, whether dedicated to books or articles, intended for one community or another or linked to a transformative or other agreement. These funds are provided not based on a competitive application process, but on eligibility criteria. We have mainly focused this literature on collaborative funding, such as the deployment of the SCOSS model (2022) or Subscribe to Open (S2O) for journals (Crow and al., 2019), currently used by a growing number of medium-sized publishers. Dufour et al. (2023) recently proposed another collective funding scheme, which would go directly from research funding organisations (RFOs) to Diamond journals to sustain them in the same way as these organisations are currently sustaining a lot of APC-based journals.

Funding typology. This literature is partly produced by researchers, information scientists and other stakeholders when they present alternatives to a funder or a sponsor. The paramount examples are the Wiki pages of the Open Access Directory for journals and books, but this is also the case for the COPIM work on revenue models for books (Penier et al., 2020).

This classification is not exclusive: some documents would belong to two types, for example, the collection of book business models displayed at <https://oabooksbusinessmodels.pubpub.org/>, where each publisher describes its model. Other classifications are possible, but they would probably tend to be reducible to the existing divisions within the literature. Indeed, one of our findings is the

existence of practically unrelated sets of literature between those dealing with books, those dealing with journals, and those dealing with infrastructures.

A large part of the literature in the Zotero library focuses on the issue of flipping from a subscription model to open access, presenting possible funding models and making a landscape study of flipping – or reverse-flipping (Matthias et al., 2019). In contrast, another set focuses either on creations from scratch or on the workings of platforms/publishers that have already switched and have used up the transition funds that exist in many countries. Some of the literature focuses entirely on diamond initiatives and considers the author-pays model to be a deterrent, while other references consider Diamond journals to be only part of a landscape study, for example.

These divisions and the range of document types have important consequences on the collective knowledge produced. Some documents, particularly those in the experience category, are presented as singular experiments. However, they highlight the importance of dedicated teams and the concrete problems that IPSPs face. Other documents, such as certain business model proposals, are presented as universal, and they lack concreteness to be able to put them into practice. Finally, we observe that there is a significant absence of literature on the topic of surplus. Rather, it is the topic of the total loss, i.e. the disappearance of journals or publishers and their backlog, that is either feared or acknowledged, as stated in the recent landscape study of the German Diamond journals (Tauber et al., 2024).

These results were essential in shaping knowledge production in DIAMAS (to help define questions and the choice of IPSPs for quantitative research, etc.). We used what we learnt from the literature and compared this with DIAMAS research results to gauge the limits of our investigations or to confirm partial results.

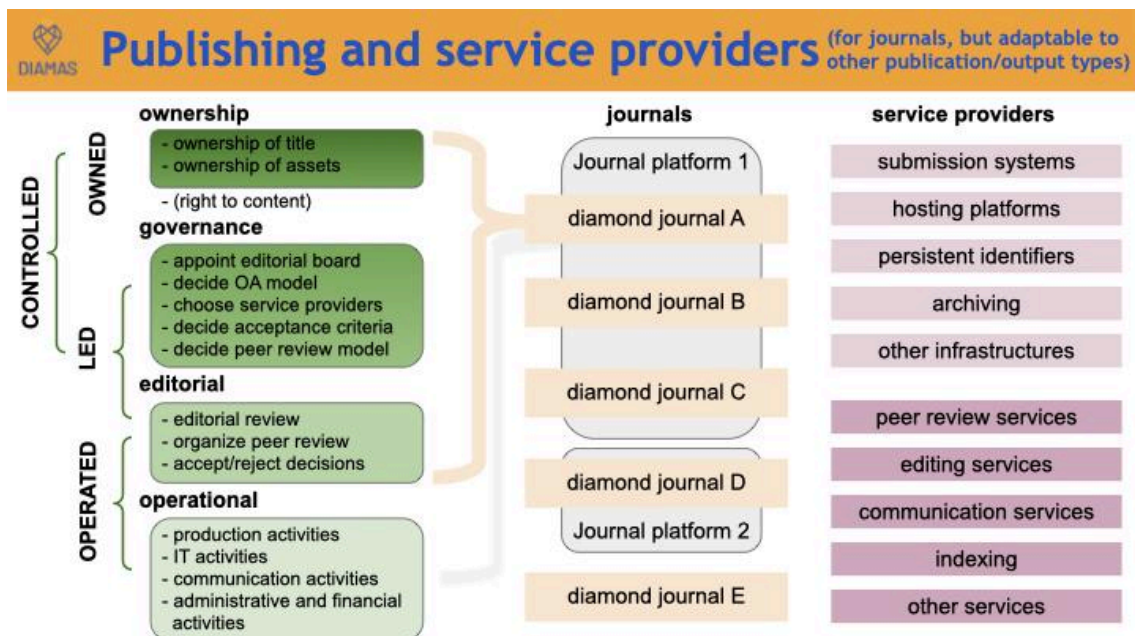
What does an IPSP do and for whom?

What does a publishing organisation do? The most comprehensive answer has probably been provided by Anderson (2018), in order to defend the value of commercial publishers. In the final version of his compilation, he produced a list of 102 tasks that such a publisher undertakes, ranging from organising peer review to physical distribution, price setting, brand creation, and protection. This inventory marks out the vision of a highly integrated publisher, where all tasks are performed or organised by a single publisher. This task development seems to be a continuous process for some, as certain major commercial publishers have steadily extended the implementation of this vision by acquiring autonomous service providers, ranging from preprint servers to educational resources (Chen et al., 2019).

In contrast, previous work clearly defined the world of Diamond OA as an ecosystem in which different organisations interact and perform specific tasks (Becerril et al., 2021), with some service providers being commercial. We therefore need to understand the different configurations in this ecosystem, which are undeniably more varied than

those of commercial publishers². A first schematic vision was produced by Jeroen Bosman and Bianca Kramer as part of the DIAMAS project (see Figure 1).

Figure 1. Publishing and service providers (<https://zenodo.org/records/7378067>).



Further DIAMAS work has led to two important results discussed in the DIAMAS Landscape Report ([Armengou et al., 2023](#)). We first note that the legal relationships between publishing activities and institutions vary widely, from where they sit, e.g. at autonomous entities or integrated departments, to their economic ties -i.e. do they have dedicated budgets or are they simply funded from a common source (cf. p. 39-40). Second, we discovered that the range of services offered by IPs varies a lot within categories such as "Production", "Editorial" and "Communication" (cf. p. 48), and this affects the financial sustainability of the service.

Collected data suggest that there is no single universal range of tasks that would form the "core mission" for an institutional publisher. Building on this, we propose a list of 14 main tasks or services, each of which may be part of IP activities or performed independently by another stakeholder. The list of options below is arranged in alphabetical order to show no hierarchy.

- *Content format production*: the action of giving a stable form to the published content. It can be performed by the IP, left to authors/journals, or outsourced to a service provider.

² The degree of vertical integration of commercial publishers already varies, notably with journals belonging to learned societies that are simply distributed by these same commercial publishers.

- *Copyediting/language editing/proofreading*: various actions performed on text content. It could be handled within the IP, delegated to book collection or journal editors, to authors, or to paid service providers.
- *Displaying/Disseminating*: the action of publicising content via specific software or platforms. Platforms can be created and managed by the IP or by an SP. IPSPs can utilise the tools and software that can again be developed by the IP itself, but much more frequently, by the external SP (e.g. OJS, WordPress, Janeway). The disseminating operation can be under the control of the IP or delegated to third parties, typically journal teams.
- *Editorial decisions/Peer review management*: the actions related to handling manuscripts and correspondence with authors. This can be under the direct control of the IP (most often for books), or delegated to editorial teams and third parties (external reviewers).
- *Hosting*: the action of controlling the material space on which published content appears. Content can physically be on IP servers, IP parent organisation platforms such as an institutional archive or, conversely, on a third party site. This can be managed by another IP or a specific SP. Content can include data attached to publications or just a permanent address as it is hosted elsewhere.
- *Identification*: the action of attributing permanent identifiers to content, mostly text, authors and data. Once again, it can be performed inside an IP (e.g. because they own a Crossref DOI domain) or be left to a third party (e.g. ORCID or a national DOI agency).
- *Income management*: the action of applying for, contracting, paying, and accounting monetary resources. This can be a significant part of the IP's tasks with dedicated personnel or can be distributed between a parent organisation and authors or editorial teams, for example.
- *Indexing*: The action of putting data on outputs as books, book series, journals in commercial or open databases like Scopus, DOAB/DOAJ or WoS. IPs often directly manage or support outputs for this purpose, but it can be outsourced to an SP
- *Intellectual property rights and licensing*: actions related to the acquisition, the transfer of content property, and the scope of its uses. There are two aspects to ownership here. On the one hand, titles (mostly in journals but also book series) can be owned by an IP or another institution (the parent organisation, a learned society, or a different university/research institution). On the other hand, the content itself is owned through licensing, attributed to the IP, the authors or to the owner of the title. The licence may be different for publications and data.
- *Marketing*: the actions relating to funding streams to support the IP or its partners, enhancing audiences, and increasing content outreach. Authors are increasingly a direct part of this process, but large IPs, or SPs, may develop these operations themselves.

- *Metadata production*: the action of linking any useful data to content often by software, on the basis of information provided by authors at the time of submission. The completion of that task can be at least partly dispatched between the IP and an independent institution.
- *Preservation*: the action of archiving and preserving content in the long term. This service could be the focus of the IP or the responsibility of the parent organisation, typically as part of a university open archive for books and journals. Alternatively, it can be left to a service provider, either embedded into a publishing platform (e.g. OJS), a national archiving provider (e.g. the national library), or integrated into a global service (e.g. CLOCKSS).
- *Printing*: any action related to the production, selling and dissemination of printed material. This may be outsourced or offered as a service (freely or not), depending on the history of the IP.
- *Training*: different sets of actions performed by IPs to improve the skills of their teams or those of associated stakeholders, including editors and authors.

Who carries out these processes can differ: It can be the IP itself, delegated to other stakeholders, including authors, or the subject of a contract with an SP. In some configurations, the task is simply not performed at all, a trivial example would be XML on an OJS platform. Regarding the large diamond platforms in Europe, there is an apparent similarity between many services provided to journals when comparing the Open Library of Humanities (OLH) and OpenEdition Journals (OEJ), for example. However, OLH considers itself to be an IP and consequently that it should own the titles distributed. In contrast, OEJ considers itself to be an SP, and does not own any titles. The latter distributes two-thirds of the money they obtain from the freemium mode (Mounier, 2012) to their hosted journals as they know it is needed for some services that OEJ does not offer, like copyediting, which OLH performs.

It is also important to look at the lesser-known world of small to medium-sized OJS platforms, which represented 60% of the population surveyed in the Open Access Diamond Journal study (Bosman et al., 2021) and that we often encountered in our interviews. OJS is often studied as a substantial population of journals or as a global infrastructure (e.g. Khanna et al., 2022). However, in between, there are national, regional and local-based OJS instances run as publishing platforms by IPs or SPs. All of the 7 IPs interviewed that rely on OJS offer training and support for indexing. If we consider differences, sometimes the OJS instance is on the library server affiliated to the IP, sometimes it is on a university server that does not depend directly on the IP and in other cases, it is on a paid SP hosting site. The range of services offered also varies: typesetting can be included, outsourced, or paid by the IP, or completely left to journals. The IP can assign DOIs, but sometimes it is a national agency that takes care of the metadata.

Knowing that the range of performed tasks has huge consequences on sustainability is vital. In the following example, a Southern European university outsourced the hosting of 35 of its journals. The head of the IP reports about the email he received in the middle of the summer:

“When we were notified that Company X was no longer running a server, there was no time to prepare for the budget. So it was a sort of emergency. And so I had to provide with the overhead of my European projects. But, I love Open Science. So I did it willingly. Imagine the middle of August and, you know that, maybe 10 days later, everything is just down. We aimed not to interrupt the service.” (Interview #4)

The head of this IP decided to take a long-term subscription for hosting because it was cheaper, and the budget for the former hosting provider was at the university level and difficult to obtain for a specific provider for the OJS platform. Had the university provided the hosting, the sustainability challenge would have lain with the parent organisation rather than the IP.

Contrary to the previous example, small OJS-based platforms may consider themselves as SPs, hosting the single journal that belong to societies as IPs. More radically, an IP can function almost on its own. For example, in its first issue, *Volcanica* published an editorial entitled “The first diamond open-access journal for Volcanology”, explaining why it was both a journal and a publisher and how much it cost (Farquharson and Wadsworth, 2018). They separate what has to be paid in cash from anything else that depends on human resources (such as peer review management, editorial decisions, layout). This case shows us that a single journal with 2 issues a year running at a very small scale is able to manage all tasks of an IP. Consequently, their sustainability mostly depends on the community involved and hardly on the broader publishing ecosystem.

We can draw an important lesson from these different cases. There is great diversity in the service provision amongst IPs and SPs in the Diamond OA ecosystem. The elements necessary for the IP to be sustainable will vary according to these configurations.

Even if IPs are sometimes completely free to make their own choices, they can often be constrained by public or institutional policies. For example, suppose a specific agency provides DOIs to all publishers at the national level. In that case, the IPs can be compelled to use them as their service provider. If disciplinary or national journal platforms exist, IPs can be incentivised to give up the hosting of their journals. They are then constrained by the infrastructural choices of that platform. National policies therefore clearly play an important role in structuring the ecosystem.

Another key factor affecting sustainability is how IPs deal with the scope of the content and the eligibility of contributors. Apart from global preprint servers and perhaps a few megajournals, there are always gaps between a broad principle of openness – e.g. every author and research is welcome – and the rules and practices set by publishers, editorial teams, and other actors. In trivial terms, a journal or book collection has a scope that defines the limits of relevance for publishable content, but also often a

single language. One can always publish somewhere, but not on every output of each platform.

Some publishers include *de facto* author eligibility; this is particularly the case with funder platforms such as Wellcome Open Research or Open Research Europe, where one has to be a grant holder to be authorised to submit a manuscript. IPSPs may include other criteria such as the territorial dimension (a given national platform of journals), the dimension of disciplinary fields such as the humanities, the use of a format such as LaTeX, and so on.

Our interviews also highlighted the importance of some IPs being attached to the communities directly involved in their parent organisation, for legal reasons or by a political choice of the parent organisation. For example, in an Eastern European IP publishing a dozen journals, editors-in-chief have to be eligible:

"We are under the press law that says that the editor-in-chief must be from the place where the publisher is. There is one person who has been working for us for a lot of years but she's now working at this other university and she has no permission from her employer to work in the institute, so we paid her extra time outside of her work. It's an exception but in fact, she should be an employee of our institute."
(Interview #8)

Eligibility may also apply to the affiliation of authors, such as in the case of a German university press which publishes several dozen books a year – a situation that is described as very common in the country.

"It's not open to everyone, so it's just for our authors and institutional employees. That's also perhaps something German-specific with tax law. So usually if I offer this service let's say, institutional intern. In that case, I don't have to account for all the work that I or my people do or the wholesome costs like energy and rent for the rooms and something. I don't have to count that in, but if I want to open my university press for external authors, then I'm in a different situation because I'm in some kind of competitive situation with commercial publishers." (Interview #7)

The scaling of the IP is framed by the eligibility criteria just as the pool of potential authors or editors-in-chief is institutionally limited. Some IPs operate with a self-limiting set of rules, as in some science academies that have published their members' research for centuries in their own journals. These are also run by their own members (Fyfe et al. 2021). Such IPs are considered a service to the local community and are often attached to research departments or to the library. Consequently, they don't present themselves as an open hub for prospective authors/editors from outside the community.

Conversely, other IPSPs tend to present themselves as “universal”, placing no disciplinary or geographical conditions on their hosted projects. The two best-known cases in Europe are Peer Community In (PCI) and SciPost. They were defined as potential large-scale publishing platforms from the start and were made to freely provide extensive services to self-organising disciplinary committees (respectively 17 in PCI and 12 in SciPost). The intent of PCI to extend its current authorship has been made explicit in its manifesto:

“I commit to submitting, within 15 months following the signing of this manifesto, at least one of my best articles to a PCI for peer review and, if recommended, to publish it in the Peer Community Journal. I support PCI and adhere to the idea of making Peer Community Journal a widely-used venue for the publication of high-quality articles. I will be bound by this promise only if at least 500 other researchers make the same commitment.” (PCI Manifesto)

Even if PCI has a parent organisation (INRAE) and some strong support from another French institution (CNRS), the platform and its services are designed for upscaling, and therefore serve many communities beyond France, leading to a very different kind of sustainability.³

In the SciPost case, the absence of eligibility criteria is made clear in the platform homepage: “The Home of Genuine Open Publishing. SciPost is a complete publishing infrastructure serving professional scientists worldwide.” The funding support suggested to author employers goes along the same lines, as institutions worldwide are asked to become sponsors of the platform. At the time of the writing of this report, no less than 82 countries and 1,750 institutions have been reminded that their authors have benefited from the free publishing services, some of whom are already supporters.⁴ Unlike PCI, SciPost has no parent organisation, making it even more crucial to extend its community of authors to ensure its sustainability via their employers.

In this section, we have stressed the importance of eligibility criteria and the range of services directly provided by an IPSP to understand sustainability more fully. In almost all cases, these IPSPs are dependent on their immediate environment (parent organisation) and their distant environment (infrastructures), which define “network sustainability” (Heinemann, 2019). Their funding model is influenced by whether they draw on such networks or if they need to support the IPSP with funding or staff. Depending on the configuration, an IP needs to create funding streams and mobilise certain types of sponsors and donors to sustain themselves. Some have services whose costs are covered by contributions from the parent organisation or by its capacity to finance publishing from other income-generating activities, which is the topic of the next section.

³ See The Finances and Cost Structure of PCI, <https://peercommunityin.org/pci-finances/>, last consulted on 1 March 2024.

⁴ See Organizations on the SciPost website, <https://scipost.org/organizations/>, last consulted on 1 March 2024.

The heterogeneity of IPSP funding models

The literature presented in section 2 has brought to light various funding models. However, two important aspects are lacking when considering the sustainability of IPSPs. First, these models are designed to finance individual publications (journals or books), implicitly assuming that the model can be scaled up. For a long time, many publishers seemed to have only one funding model, the journal subscription model. However, already in the age of print, other sources of revenue were present: membership fees for learned societies, advertising for some journals, especially if they had professional readership along with the academic one, and print sales. In the digital age, while some of these streams have vanished, other new ones have appeared. So we must consider that, at the level of an organisation such as an IPSP, multiple funding models are used simultaneously, depending on outputs, or even for the same output. This will be the subject of the first part of this section.

Secondly, we also have to remember that no funding model is sustainable by definition. Instead, they all rely on a constant renewal of income streams on one side and an unpaid workforce from academic institutions being offered to publishers on the other⁵. For most IPSPs – including self-publishing learned societies – subscription has only been profitable for a few decades, but this is increasingly becoming unsustainable, among other things because it often involves a threat to their autonomy or at least increases their dependence on powerful companies, likely to act unilaterally on their revenues. The threat that Big Deals would not be renewed has been growing since 2010 even for the largest publishers. This can occur due to a sudden drop in financial resources (Greece) or the choice to no longer pay for a service that does not meet the needs of libraries (United States) or open access demands (Germany or Sweden).

One might argue that the APC seems to be a viable sustainable funding model since MDPI and Frontiers are now in the top 6 publishers by volume published, though their added volume was smaller than a fifth of ACS, Sage or OUP a decade ago! (Csomós and Farkas, 2023). It seems to be so sustainable that they create journals almost every week. For example, in 2021, MDPI launched 84 new journals and acquired only two existing titles. As Brockington (2022) has shown, this growth is also the result of lowering rejection rates. The incentive for publishers to accept a manuscript in the APC model has been discussed for a decade, and its link to the growth of vanity presses, now dubbed “predatory publishers”, is well established. Above and beyond what is often portrayed as a potential threat to the whole scholarly communication system, the APC business model is often not considered sustainable from the authors’ and research organisations’ points of view. A large body of literature has consistently shown the rise of APC prices over time, both for full OA journals and those relying on the hybrid model.

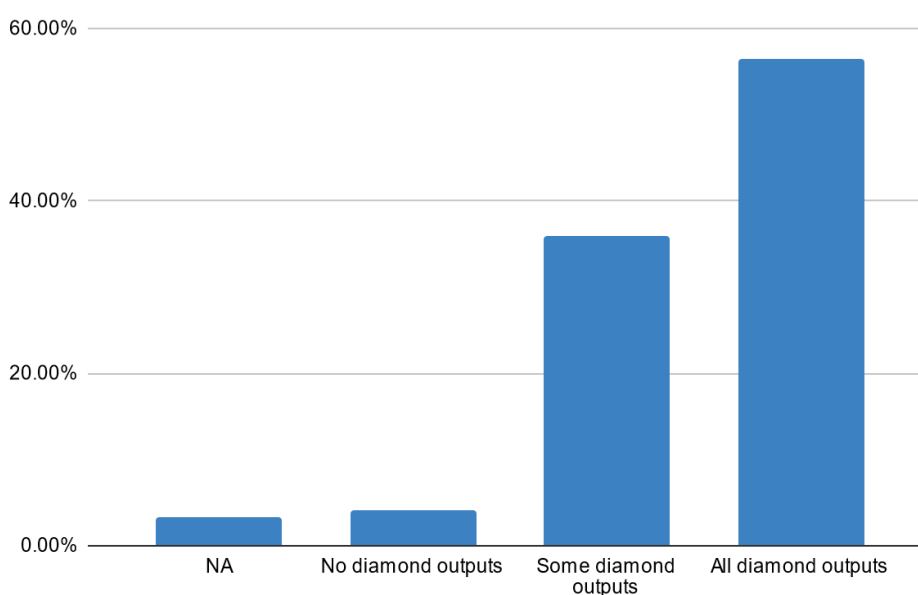
⁵ The following paragraphs are a synthesis of Torny (2022, November 30). The sustainability argument or... How academic journals’ economic models never really last. *The political economy of academic publications*. Retrieved February 26, 2024, from <https://doi.org/10.58079/sy3h>

Whether articles point out “prestige prices” or “market power”, researchers describe an ever-growing number of APC articles and a rise in prices (Budzinski et al., 2020). Moreover, since 2022, this large-scale full OA publisher model seems to have become unsustainable for the publishers themselves. Hindawi, acquired by Wiley, has had to withdraw 8,000 articles due to compromised peer review in its special issues (Van Noorden, 2023). Wiley has eventually decided to withdraw the Hindawi brand, suffering a drop in its share price. Meanwhile, MDPI and Frontiers have seen a significant drop in their published volume (Petrou, 2023). At the same time, some universities have announced that they are advising their staff against publishing with these three publishers, and some of their journals have disappeared from the lists used in Denmark and Finland for research evaluation. In addition, the Swiss National Science Foundation has decided to stop paying APCs for articles published in special issues, which are at the heart of the publishers’ volume expansion. Finally, as a result of previous events, Frontiers has decided to lay off 30% of its staff in early 2024 (Magee, 2024). So, if models like subscription and Gold OA APCs are not sustainable, what other funding streams are sustaining the diamond model? The second and third parts of this section will deal with this topic.

Interactions between Diamond and other models

To gain an in-depth understanding of the diversity of funding models, we first sought to understand the share of Diamond outputs at the same publishers or service providers. The majority of IPSP survey respondents reported publishing only Diamond outputs (56%), and only a few do not publish Diamond outputs (Figure 2). Interviews and focus groups reveal that ‘pure’ Diamond publishers are often native Diamond IPSPs, rather than flipped ones; or, to be more precise, when they flipped, it was directly from a print-only subscription model.

Figure 2. Proportion of Diamond outputs within surveyed IPSPs (N=383)



In the DIAMAS survey population, one-third (36%) of respondents publish or provide services using multiple funding models, including Diamond and non-Diamond (Figure 3). Among the most well-known ones, PKP is frequently considered to be a Diamond-only service provider, but OJS provides a module to manage APCs which is used by a minority of APC-based journals (13.6% in the Alperin et al., 2016 study). We will focus here on these mixed-model IPSPs, as they are numerous in the very specific population we investigated. Even though some IPs have adopted the Diamond model for all their outputs, they still use a diverse range of funding models for different outputs. Table 1 summarises the proportion of Diamond outputs in the production of mixed-model IPSPs.

Table 1. Proportion of journals, books and other outputs under a Diamond model within IPSPs

	Journals		Books		Other outputs	
	n	%	n	%	n	%
A minor part is Diamond	24	18.5	56	52.8	26	35.6
About half are Diamond	15	11.5	15	14.0	7	9.6
Most are Diamond	45	34.6	28	26.2	22	30.1
All are Diamond	46	35.4	7	6.5	18	24.7
Total	130	100	107	100	107	100

Field: European IPSPs who publish or provide service for journals, books or other outputs under a Diamond model

Question: What proportion of the journals / books / other outputs you provide service for are under a Diamond model?

Source: DIAMAS follow-up survey

Among IPSPs which handle journals, 37% publish only some of their outputs under a Diamond model. Among these mixed-model IPSPs, only one-third (35%) handle Diamond journals exclusively and publish other types of outputs (books, conference proceedings, reports) under a non-Diamond model. 35% report publishing most of their journals under a Diamond model, 12% half of them, and 19% to a minor extent.

Among IPSPs who provide books, 51% publish only some of their outputs under a diamond model. Concerning mixed-model book IPSPs, the contrast is even greater than for journals: only 7% of them publish or provide services for books exclusively under a Diamond model and have chosen other funding models than Diamond for their other outputs. More than half of them publish Diamond books to a minor extent (53%), and

only 14% use the Diamond model for half of their outputs. Just over a quarter (26%) use Diamond for most of their book production.

Half of the IPSPs that publish other outputs apart from journals and books (reports and conference proceedings) publish some of their outputs under a Diamond model. Funding models are more diverse here. A fifth of IPSPs who declare mixed models for all their outputs publish or provide services only for non-journal and non-book Diamond outputs. Here, 36% publish a minor part, 10% the half and 30% most of their other outputs in Diamond.

We now know what proportion of Diamond outputs exist according to their type. What other funding models do IPSPs use along with the Diamond one? Let's take a look at mixed-models IPSPs, who declare using the Diamond model for some of their outputs but not all of them (N=138 out of 383). In addition to the Diamond model, 25% use a subscription model, 45% use an author-pays model, 42% have their outputs only available in print and 35% combine Diamond with other models (freemium, pay-per-view). We note that the IPSPs who declare producing no Diamond outputs (N=16 out of 383) are only slightly different: the proportions are 31% for the subscription model, 50% for the author-pays model and 44% for other models, respectively. Non-APC models and open access

In the DIAMAS survey, we asked IPs that declare using a non-APC model to estimate the proportion of content they publish in OA (in %). Table 2 shows major differences among output types, i.e. journals are largely more open than books. In the usual perception of institutional publishing, as opposed to commercial publishing, a Diamond funding model and open access (OA) often go hand in hand. However, our study shows that this association is not entirely systematic. 71% of journal IPSPs (285 out of 401) are both fully OA and fully non-APC, and this trend is much weaker for books – only 27% of book IPSPs are both (85 out of 319).

Table 2. Estimated proportion of IPSPs content published in OA

	n	mean	median
Academic journals	496	90.1	100
Academic books	319	58.2	60
Conference outputs	280	75.5	100
Grey literature	105	62.6	95
Non-standard research outputs	117	63.2	99
Non-academic outputs	118	51.1	50
Other outputs (datasets, software)	89	54.0	67

Field: IPSPs with no author charges, whatever the output

Question: How much of the IPSP's published content is in Open Access?

Source: DIAMAS survey

However, not all institutional OA publishers are fully Diamond either. Just over 25% publish all their journals and books in OA without charging APCs or BPCs. When looking solely at the population of IPs with full OA journals, 19% have relied on APCs over the last three years.

As regards IPs who publish journals, to understand their funding models, we note that fewer IPs who rely on APCs publish all their journals in OA (51%, or 116 out of 209) than IPs who do not (60%, or 285 out of 476). In contrast, more full OA journal IPs are Diamond than other OA journal IPs: 33% of the former rely on APCs against 22% for the latter.

The revenue streams of these non-APC OA IPs are not significantly different from OA IPs charging APCs. They rely in similar proportions on subsidies from a parent organisation which is fixed and permanent (54% and 58%) or periodically negotiated (34% against 35%), or on permanent public or government funding (39% against 37%), on time-limited grants or public or private subsidies from outside their organisation (52% against 57%) or on print sales (31% against 34%). Non-APC OA IPs charge voluntary author contributions (VAC) less frequently than APC OA IPs (19% against 26%).

In summary, there are different combinations of funding models, e.g. closed content, APC or diamond. Even if institutional OA publishing is not fully Diamond, IPs who publish in OA are more likely to have a Diamond model than charge APCs. Nevertheless, non-APC OA institutional publishers that publish journals have similar revenue streams to IPs that publish OA and at least partly charge APCs. In short, there is clearly no single monolithic and unequivocal Diamond model. Rather, there are different degrees of Diamond models which correlate with the outputs of the IPSP.

Diversity of funding forms for Diamond IPSPs

For Diamond outputs, IPSPs do not charge authors nor readers, but they can still be cross-subsidised from other outputs. How do they fund their activities when all their outputs are Diamond? Based on the literature, we asked about the use of different existing funding sources. After selecting full Diamond IPSPs (N=216 out of 383 respondents, i.e. 56% of the follow-up survey sample), we see that they rely on diverse funding sources and forms. These include:

- Fixed and permanent subsidy from the parent organisation
- Periodically negotiated subsidy from the parent organisation
- Permanent public or government funding (international, national, local)
- Time-limited grants or subsidies from either private or public from outside the

organisation

- Collective funding, e.g. crowdfunding, S20, SCOSS, subscription fees, membership fees.
- Voluntary Author Contributions (VAC)
- Content and print sales
- Any other income, such as event organisation, commercial revenue, loans

Hereafter we refer to them as “funding forms”. These funding forms combine information about the source and the type of funding. For example, two items cover funding from the parent organisation: fixed and permanent or periodically negotiated.

The fully Diamond IPSPs⁶ we surveyed demonstrate an ability to secure funding in a limited variety of forms (see Table 3) as the majority of them use 0 to 2 forms although still 19% juggle with three kinds. Below we will discuss the workforce that is required to manage and secure funding, which may also be a limiting factor.

Table 3. Number of funding forms that Diamond IPSPs rely on

Funding forms	N	%
0	23	10.6
1	49	22.7
2	55	25.5
3	42	19.4
4	17	7.9
5	15	6.9
6, 7, or 8	15	6.9
Total	216	100

N=216

Field: full diamond IPSPs

Question: Over the last three years, how much has the IPSP relied on the following forms of funding?

Source: DIAMAS survey

Diamond IPSPs report funding from the parent organisation, time-limited grants or subsidies from outside the organisation and government funding most frequently. However, it should be noted that all options were marked as “Not applicable” by a substantial share of respondents (from 37% to 72% per option). This means that there

⁶ “Diamond IPSPs” refers to PSPs whose outputs are all Diamond, based on the self declaration of IPSPs in the follow-up survey.

is no single funding form that would be the most appropriate per se, but several combinations are possible depending on the IPSP's institutional and national context.

Following the distinction established in the literature between internal and external resources in funding models (Chi Chang, 2006), the fixed and permanent subsidy from the parent organisation is the most cited by Diamond IPSPs: 54% rely on it, of which 36%, very highly and 9% highly, as shown in Table 4. IPSPs less frequently rely on a periodically negotiated subsidy from the parent organisation (33%), although it is still significant.

Table 4. Internal funding forms of Diamond IPSPs (in %)

	Fixed and permanent subsidy from the parent organisation	Periodically negotiated subsidy from the parent organisation
Very high	35.6	9.3
High	9.3	10.6
Neither high nor low	4.6	7.9
Low	1.9	3.2
Very low	2.3	2.3
Not applicable	41.2	56.5
N/A	5.1	10.2

N=216

Field: full diamond IPSPs

Question: Over the last three years, how much has the IPSP relied on the following forms of funding?

Source: DIAMAS survey

66% of IPSPs receive funding from their parent organisation, and thus they have a pivotal role in the funding of Diamond IPSPs. Interviews tell us that this recurrent funding is used for well-identified and stable expenses, rather than for unexpected challenges. We should remind readers that even without direct funding, IPSPs can benefit from in-kind support, be this monetary, service or personnel support.

Alongside parent organisation support, full Diamond IPSPs draw on external funding sources. Table 5 shows that 33% benefit from permanent public or government funding. If we combine that with the results from the previous table, 81% of full Diamond IPSPs have at least funding from their parent organisation through permanent public or government support.

Above and beyond this core funding, 48% get time-limited grants or subsidies from outside their organisation, with a slightly lower mean reliance.

Table 5. External funding forms of Diamond IPSPs (in %)

	Permanent public or government funding (international, national, local)	Time-limited grants or subsidies from either private or public from outside your organisation	Collective funding e.g. crowdfunding, S20, SCOSS, subscription fees
Very high	13.4	8.8	3.2
High	5.1	12.0	4.2
Neither high nor low	6.0	11.1	3.2
Low	3.2	6.5	3.7
Very low	5.6	9.7	8.8
Not applicable	56.9	43.5	66.2
N/A	9.7	8.3	10.6

N=216

Field: full diamond IPSPs

Question: Over the last three years, how much has the IPSP relied on the following forms of funding?

Source: DIAMAS survey

The third column of the table is also very telling: collective funding schemes are often discussed for their innovative nature or for their risks and opportunities. However, they are used just marginally so far. 23% of Diamond IPSPs rely on collective funding even though this is secondary or tertiary funding, as only 7% qualify it as “high” or “very high”. We cannot determine whether these funding schemes are much more discussed in policy and literature than appearing in IPSP everyday practice, or that collective funding only directly concerns a few big infrastructures like hosting platforms.

Finally, some Diamond IPSPs generate financial revenues thanks to their content and services. As seen in the DIAMAS survey (see Table 6), we know that content and print sales continue to be a source of financing. 25% of full Diamond IPSPs rely on it, but to a low degree: 2% rely highly or very highly on it. 15% also rely on Voluntary Author Contributions (VACs) to fund their activities. 14% of Diamond IPSPs rely on other income such as event organisation, commercial revenue and loans to fund themselves, although they do not generally depend highly on such streams.

Table 6. Additional funding forms of Diamond IPSPs (in %)

	VAC	Content and print sales	Any other income, event organisation, commercial revenue, loans
Very high	3.2	1.4	0.5
High	2.8	0.9	1.9
Neither high nor low	3.2	4.6	3.2
Low	2.3	6.0	3.2
Very low	3.2	12.0	5.1
Not applicable	73.6	63.0	72.7
N/A	11.6	12.0	13.4

N=216

*Field: full diamond IPSPs**Question: Over the last three years, how much has the IPSP relied on the following forms of funding?**Source: DIAMAS survey*

Furthermore, full Diamond IPSPs tend not to combine these three additional revenue streams: 61% do not use any, 28% use one of them, 7% use two of them and 4% use all three forms. Among Diamond IPSPs who use VACs, 47% also rely on print sales for funding and 34% on other income. Among IPSPs who rely on print sales, 28% rely on VACs and 26% on other income.

The literature is able to tell us more about these models. To start with, the Open Access Directory reminds us that there can be many concrete forms of funding. For example, for journals, crowdfunding is used by Americana.⁷ Another form appeared as early as the Budapest Open Access Initiative: advertising, which existed in many printed journals, particularly in the biomedical field. In the 2000s, a minority of OA journals accepted advertising (21% in Frantsvåg, 2010; 6% in Edgar and Willinsky, 2010), and only 3 IPs mentioned it as a monetary resource in the DIAMAS Survey. However, out of the 3, one who was a participant in a focus group, said advertising represented half of its budget, coming from the print edition with a professional audience. Moreover, an interview with one of these three IPs indicated that advertising can even be the main source of revenue for a diamond publication. This particular IP publishes a unique journal aimed at all physicians of a Northern European country. The journal used to be

⁷ American Popular Culture Website, "Endowment Fund", https://www.americanpopularculture.com/journal/endowment_fund.htm, last consulted 04/03/2025.

print only, funded primarily by advertising. When it went electronic in the 2010s, the IP went straight to Diamond.

“Q: as the APC trend went up with 21st century, was there a discussion about making the authors pay in any way? Or was it just very clear that the authors didn’t have to pay for the content?”

A: They never had to pay in any way. And, in addition to the lack of charge, we also provide a lot of services to our authors. We do. We help with the illustrations. We pay for them. We do all the graphs and help clean up those. So the style is the same. The only thing the author needs to pay for is the English translation, but it’s at cost.”
(Interview #3)

Six employees work for the journal, doing some language editing, layout, and marketing. Two persons translate from the local language into English, as many authors are asking and paying for it. Around 90% of the content contains scientific articles and the rest is professional news. While common in print, advertising seems to have disappeared in electronic journals, including amongst the biggest and most famous publishers and yet, it still exists in this Diamond journal:

“I think we are the scientific publication, at least from what I can find, that has the most online advertisement in the world. I know it’s a strong word, but I’ve looked at as many peers and other scientific publications as I could find, because we want to drive and do digital advertisement more aggressively. But as long as Nature, New England Journal, Lancet, British Medical Journal, all those have very little advertising online and almost none on the mobile versions of their websites.”
(Interview #3)

Such a funding stream has made the electronic journal as successful as the print edition for their professional audience because medical advertising is strictly regulated for non-professional audiences. Still, this IP limits its possible revenue compared to many ordinary commercial websites.

“One of the remaining barriers we have set up for ourselves is that we have no advertising inserted into the article bodies. We have Ad spaces on top and the bottom of the page. Most other media outlets inserted big article boards inside the article. So that’s one we’re holding off on. But I can tell you about one-third of our Ad revenue now is online. That’s a lot.” (Interview #3)

This IP seems quite sustainable, though advertising revenue comes from the number of readers, and 90% of the traffic comes from Google search results. The only threat to the model would be a drastic change in Google search as has been envisioned with the massive use of AI, where Google would give “direct answers” rather than link to content.⁸

⁸ See for example, *The Washington Post*, “AI is changing Google search: What the I/O announcement means for you”, May 10th 2023, <https://www.washingtonpost.com/technology/2023/05/10/google-search-ai-io-2023/>, last retrieved on 1 March 2024.

This last example reminds us that full Diamond OA is not a single funding model, but rather a non-APC way to publish Open Access. Thus, full Diamond IPSPs rely on a range of funding sources. IPSPs can also be sustainable without direct funding support in that full costs are either borne by the parent organization, or the tasks needing funding being taken in charge by dedicated personnel. It is also clear that although the parent organisation and public/governmental body are central sources of funding for many, this does not prevent full Diamond IPSPs from searching for extra revenue, either from their content/services or from external funders.

External funders: the importance of national public funders

After this in-depth exploration of funding forms for full Diamond IPSPs, it is important to understand the nature of external funders, their prevalence and their geographical distribution. To do that, we use data from all DIAMAS survey IPSPs, which were asked to declare their funders in a free-text question. Table 7 shows the distribution of the number of funders mentioned by institutional publishers and service providers.

Table 7. Number of funders declared by IPs (N=546) and SPs (N=139)

Number of funders	IP	SP
5	8.1%	4.3%
4	2.7%	0.7%
3	6.6%	5.0%
2	13.0%	7.2%
1	23.3%	24.5%
0	46.3%	58.3%
Total funders mentioned	657	109

N=685

Field: European IPSPs

Question: Please list the names of up to five external funders who have granted the IPSP cash grants or subsidies over the last three years (largest contributors ranked first). You should not include your parent institution

Source: DIAMAS survey

Firstly, we observe that half of the IPSP survey population declares no reliance on any external funding source. Secondly, IPs have more funders than SPs, i.e. means of 1.2 and 0.78, and they clearly manage many more funders. The table clearly shows a power distribution from 0 to 4 funders. As many more IPSPs mention five funders than four funders, we hypothesise that around 6% of the IP population and 3% of the SP one may

have more than five funders, mentioning only the maximum number allowed by the survey. This shows a very contrasted landscape, with half of all IPSPs having no external funders, while a small minority have many. This hints at different funding strategies and constraints.

External funders have a homogeneous profile. Almost all are institutions such as research centres, departments, universities, publishers, national dissemination platforms, government bodies, local communities, or learned societies. The external funders of IPSPs are thus public organisations: institutional publishing is a dominantly public ecosystem. This result confirms a trend already shown in a recent paper. In many countries, public funding schemes are essential for institutional publishing, be this for journals or books (Laakso and Multas, 2023).

Moreover, these funders are generally national in scope. We analysed the free-text answers and excluded the tiny part of answers that was generic, such as “authors”, “private sponsors” or “government” and “university”. 717 named entities remained and, after deduplication, 495 remained. This shows a very contrasted landscape between local, regional and national, and non-domestic or international funders. Table 8 confirms the prevalence of public and national funders, at least for the countries with the most respondents (Croatia, France, Serbia and Spain).

Table 8. National funders cited 5 or more times by IPSPs

Funder	N
Ministry of Science Croatia	42
Ministry of Science Serbia	33
Ministry of Education and Science Poland	26
Finnish Association for Scholarly Publishing	20
French National Fund for Open Science	16
CNRS (France)	15
DFG (Germany)	8
Academy of Sciences Croatia	6
Ministry of Education Serbia	6
Ministry of Science France	6
FECYT (Spain)	5
Ministry of Culture Poland	5

N= 685

Field: European IPSPs

Question: Please list the names of up to five external funders who have granted the IPSP cash

grants or subsidies over the last three years (largest contributors ranked first). You should not include your parent institution

Source: DIAMAS survey

The above table shows that the funders mentioned five or more times are governmental or para-governmental bodies: Ministry of Science, Ministry of Education, Academy of Sciences, national associations or funds. Two elements are noteworthy: first, except for French funders, all of them only support IPSPs of their own country; second, Research Funding Organisations are almost absent,⁹ except for the German DFG, which recently decided to set up a national capacity centre for Diamond publishing.¹⁰

This was confirmed during focus groups with IPSPs from different countries. For instance, all IPs and the SP from Serbia indicated public subsidies as the main funding source, notably to fund print books. The Serbian Ministry of Science, Technological Development and Innovation covers a significant part of OA costs here. It is a rather stable fund, though limited. Similarly, in Croatia, IPSPs mostly rely on financial resources provided by the Ministry of Science and Education. For decades, it issued regular annual calls for subsidies where individual journals were awarded certain amounts based on their requests and according to certain criteria. These subsidies barely cover all the costs of publishing a journal, and IPSPs usually need to find additional resources. However, although this kind of funding may be one of several sources, it can be the primary one, as was emphasised by one Croatian IPSP running eight journals, and makes the current envisioned change in Croatian public funding mechanism in Croatian public funding mechanism a threat to their sustainability.

Similarly, all three IPs of the focus group operating in Finland have described their national environment as having well-established funding mechanisms and technical infrastructures. The backbone of their funding is the public funding subsidy from the Ministry of Education and Culture and co-coordinated by the Federation of Finnish Learned Societies (TSV). Even though this subsidy was not considered sufficient to fund the publishing activity of the IP, it is one of the few income sources that they can rely on. One mentioned by several IPs was the Finnish Scholarly Publishers Association. The association provides both competitive funding rounds for supporting scholarly publishing-related projects, e.g. digitisation, technical platform development) as well as annual funds distributed for all members to be freely-allocated for any publishing-related activity (last year the sum was 3,500 EUR per publishing organisation).

⁹ We mean here organisation that are only RFOs. In some countries Ministries can still be also research funders, we did not considered them RFOs here.

¹⁰ Boosting Diamond Open Access, <https://www.dfg.de/en/news/news-topics/announcements-proposals/2024/ifr-24-02>, 11th January 2024, last retrieved on 1 March 2024.

These examples raise the question of the usage of such grants. In the follow-up survey, we asked IPSPs to provide reasons for their fundraising activities. Table 9 shows that one-third (37%) apply for grants to innovate and add more services to their offering. 35% apply for grants when opportunities present themselves. However, one-third (37%) of the follow-up survey sample applies for time-limited grants to cover operational costs, which is a sustainability concern. 19% of IPSPs apply for grants as standard practice to cover operational costs and development.

Table 9. Reasons for why IPSPs look for or apply for time-limited funding

	n	%
We need them to cover operational costs	140	36.6
We use them to innovate and add more services/ functionalities	138	36.6
We do so when opportunities present themselves	132	34.5
We never look for grants, subsidies or sponsorship	88	23.0
This is standard practice	73	19.1
We need funds to cover deficits	25	6.5
Total	596	156.3

N=383

Field: European IPSPs

Question: Reasons for looking for or applying for grants, subsidies or sponsorship include (multiple answers allowed)

Source: DIAMAS follow-up survey

The marginality of international funders also shows the dependency on the national funding scene. For instance, there are only 12 mentions of European institutions as funding sources, such as the European Social Fund, the Council of Europe or the European Commission. Other non-national funders mentioned by IPs include large publishers, dissemination services (e.g. JSTOR and Project Muse) and foundations, all even more marginal. International funding only dominates service providers like PKP or Scipost. Conversely, many IPs of a given country mention governmental or big public domestic institutions, such as the Croatian and Serbian Ministries of Science. This divided landscape has only one notable exception: above all, French funders support non-French IPSPs, which is somewhat curious since many other countries benefit from IPSPs that serve many. Gold Open Access presents a very different funding landscape as APCs come from different countries, so a nationally diverse group of RFOs and libraries would appear to be Gold Open Access journals' "main funders".

Funding models: four IPSP portraits

How do these different funding practices interact? Is it possible to distinguish patterns or regular associations between them? We developed a Multiple Correspondence Analysis model (MCA)¹¹ to represent several qualitative variables in a two-dimensional space, which would not have been possible with mere tables.¹² These variables stem from the DIAMAS and follow-up surveys. From the first survey, these include the degree to which IPSPs rely on fixed and permanent subsidies from the parent organisation (Q17fixed), on periodically negotiated subsidies from the parent organisation (Q17period), on time-limited grants or subsidies – either private or public from outside the organisation (Q17grants) – or on permanent public or government funding (Q17permpublic), the IPSP budget volume (Q11budget) and the extent to which IPSPs rely either on monetary income (Q19monetary) or non-monetary and in-kind resources (Q19inkind). From the second survey, variables include the proportion of diamond outputs (Diamond_publishing). In short, we sought to embrace different dimensions of funding practices, from sources of revenue streams to their nature and volume.

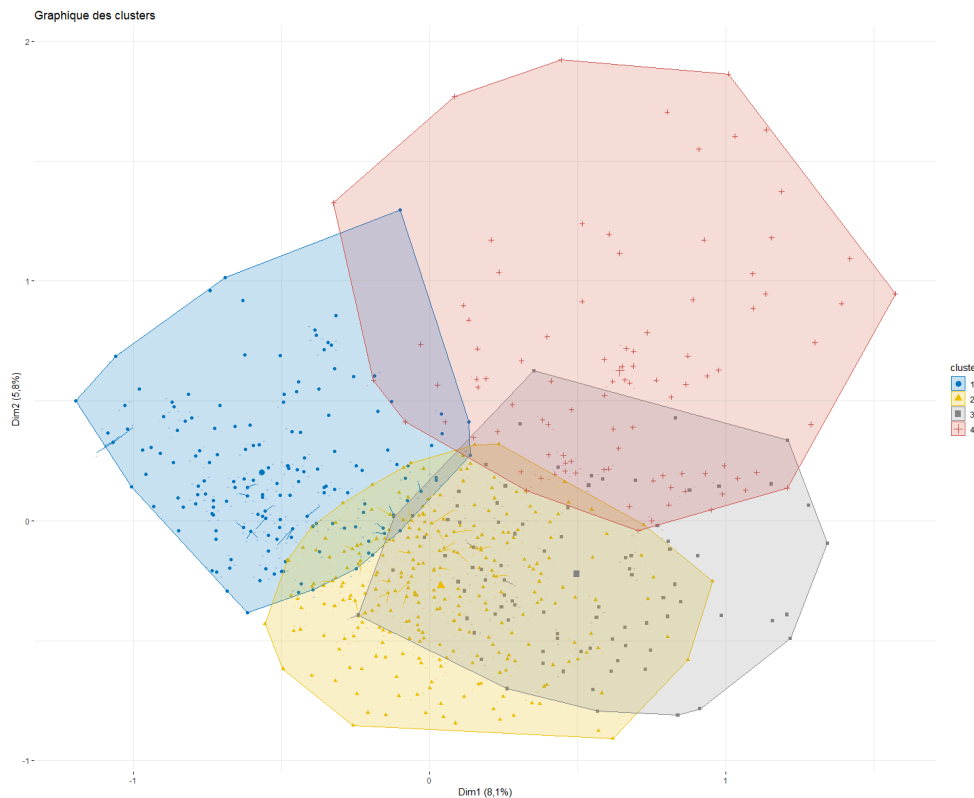
We kept 3 axes for interpretation, according to the elbow criterion (see Figure A1 in Appendix 1). Cumulated, these three axes explain 19.5% of the variance (respectively 8.1%, 5.8% and 5.6%). The variable clouds of the model can be found in Appendix 1 (figures A2 and A3). The first axis contrasts IPSPs who declare that several forms of funding forms are not applicable to them and IPSPs who rely on these funding forms to a low extent. The second axis opposes IPSPs who highly rely on those who rely on these funding forms to a low extent. The third axis is built on the distinction between low-budget IPSPs and high-budget IPSPs who neither rely on these funding forms to a high or low extent.

We then performed a Hierarchical Clustering on Principal Components (HCPC) on the results. We obtained four clusters as shown in Figure 3. This operation brings together the individuals who answered the same things to the modelled variables. These clusters then form “funding profiles” of IPSPs, and the members of a cluster share common features and are sufficiently distinct from members of other clusters.

¹¹ Thanks to the FactoMineR R package (Lê et al., 2008), available in open code.

¹² An explanation of the sociological history and use of MCA can be found in (Duval, 2017) and its mathematical foundation in (Abdi and Valentin, 2007).

Figure 3. Clusters resulting from the Hierarchical Clustering on Principal Components on the MCA model



Below, we describe these four clusters that paint the portraits of different models at the IPSP level. We characterise the clusters thanks to the variables included in the model and other profiling variables, such as countries, number of FTE, type of outputs, use of external services and IP and SP status. The resulting profiles highlight particular traits. When they are compared, proportions are given in the crescent order in first, second, third and then fourth clusters.

First cluster: Outlier IPs and SPs

The first cluster is composed of very small or very large budget IPSPs who do not operate in the usual financing system. They declare that several forms of funding forms are not applicable to them: fixed (59%) or periodically negotiated (83%) funding from their parent organisation, time-limited grants and government funding. They also declare that the distinction between monetary and in-kind resources they rely on is not applicable to them.

This is the cluster with a larger proportion of SPs (28%, versus 17%, 16% and 18% for the other clusters). This cluster gathers very large and tiny IPs in terms of production volume: 4% publish more than a hundred journals versus 3% for the second cluster, 1% for the third one and none for the fourth one 37% publish only one journal versus 34%, 27% and 24% for the other clusters. As a result, they also use fewer external services than the other clusters (58% against around 80%).

Second cluster: Public sector integrated IPSPs

The IPSPs from the second cluster are specific due to their significant reliance on public or government funding: 26% depend highly on it, versus 18%, 15% and 11%. They also rely strongly on funding from their parent organisation (fixed (48%) or periodically negotiated (23%)), and, to a lesser extent, on time-limited grants and subsidies (33%). They also declare relying on both monetary and in-kind resources: 52% of them report highly relying on monetary resources against 10% for the first cluster, 28% for the third one and 27% for the fourth; 56% depend highly on in-kind resources against 30%, 36% and 38% for the other clusters.

Third cluster: Non-monetary book publishers and other IPSPs

The IPSPs from the third cluster have a medium budget (33% with a budget between 11 and 50K€). More than one-third (38%) highly rely on fixed funding from their parent organisation, and one-fifth consider that this type of revenue stream does not apply to them. They rarely highly rely on time-limited grants or subsidies compared to the other clusters (17% against 6% for the first cluster, 33% for the second one and 20% for the fourth). 44% do not specifically rely on monetary resources, whereas it is the case for around 15% of respondents in the other clusters.

In terms of profiling, they are more often book publishers than those in the other clusters (70%, versus 51% for the first one, 59% for the second one and 64% for the fourth one), and they largely do not handle journals (90% do not publish journals, against between 2 and 6% in the other clusters).

Fourth cluster: Rich and mixed-model IPSPs

The fourth cluster is notably composed of medium and big-budget organisations and a high proportion of IPSPs have a parent organisation (69%, against 53%, 54% and 58% in other clusters). In contrast to other clusters, they are less inclined to have all outputs under a diamond model (19% against more than 30% in the others) and have more mixed models (39% against 13%, 21% and 16%). Half of them rely highly on the parent organisation for funding (fixed or periodically negotiated), whereas the other half rely on them less. They neither resort to time-limited grants and subsidies nor, more generally, do they rely that much on monetary resources.

To sum up, our results show a Diamond world on the rise, with a large minority of partially Diamond IPSPs and a majority of full Diamond ones. The latter group strongly depends on “core funding” attributed either by the parent organisation or a public body. However, they also draw on secondary sources of funding from grants or additional revenues. We drew four portraits who show variable distances to standardised funding forms. Relying on these standardised funding forms is associated with having public funders and monetary resources. Similar to the recent study on the sustainability of

Diamond journals (Taubert et al., 2024), the IPSP landscape we portray is very diverse as far as funding is concerned. The funder ecosystem is mostly composed of public national bodies, with the remarkable absence of research funding organisations and the marginality of international funders. New funding schemes are advisable to make fully Diamond OA IPs more sustainable, beyond adding more support from current funders, sponsors and donors. They could stimulate and enable RFOs and universities to fund IPSPs independent of their nationality or location. This could take the form of direct support (Dufour et al., 2023) or centralised support (Becerril et al., 2021). Simple funding schemes are also essential, as outlined in the next section.

The costs and constraints of income management

There are costs and constraints to managing income for organisations that are not seeking to make a profit. Contrary to commercial publishers, managing income is neither at the core of most IPSPs' mission nor their expertise. Our qualitative investigations have identified specific challenges in this area.

We saw that there are different levels of intensity in the management of income between IPSPs. While a small minority do not seem to receive any monetary input and therefore neither manage expenditure, the vast majority must at least manage financial relations with their parent organisation or subsidy providers. In addition, a significant minority are directly involved in searching for monetary resources, which has its own contractual and administrative constraints. This search for funding and financial management increases the workload depending on the number of partners and types of contracts, as highlighted by the UK focus group participants.

In the first part, we will deal with formalising accountability before questioning whether the search for funding leads to the transformation of IPSP's practices according to funder demands. We will then focus on the human resources allocated to this task. Who does the budgeting and reporting, and under what circumstances? If there is fundraising, what costs does this entail for the IPSP? This is the subject of the last part of this section.

Formalising accountability

In the DIAMAS survey, we asked IPSPs about their basic accounting practices. Table 10 shows that formal accounting practices are far from being the norm, as 34% of IPSP respondents do not have an approved annual budget.

Table 10. Existence of an approved annual budget

	n	%
Yes	386	56.6

	n	%
No	229	33.6
Don't know	26	3.8
Other	41	6.0

N=682 out of 685

Field: European IPSPs

Question: Does the IPSP start each year with an approved annual budget?

Source: DIAMAS survey

As some interviews suggested, this can either mean that they have no budget at all – meaning that they have no programme expenses paid by their parent organisation or their department– or that they have some line of credit negotiated during the year. The second scenario is the most frequent one, as shown in Table 11. Over two-thirds of IPSPs must monitor or formally administer their annual income and expenses.

Table 11. Monitoring and administering the IPSP's annual income and expenses

	n	%
Yes, this is obligatory	464	68.1
Yes, although it is not obligatory	34	5.0
Yes, partly	43	6.3
No, this is not obligatory	29	4.3
Other (Please specify)	14	2.1
Don't know	32	4.7
Not applicable	65	9.5

N=681

Field: European IPSPs

Question: Are the IPSP's annual income and expenses monitored and/or formally administered?

Source: DIAMAS survey

More than 10% do this partly, although this is not obligatory. If we exclude the IPSPs who do not deal with income, we can say that internal monitoring of expenses and income is a shared practice.

However, this internal financial monitoring is not generally made publicly transparent, as is requested by some research funding organisations such as those gathered in cOAlition S.¹³ Coding of IPs’ websites performed by DIAMAS has shown that even publicly sharing information on revenue streams was far from the norm. We searched for this on IPs’ websites without much success. Table 12 shows that most IPs do not share this information. A minority does publish the list of their “funders”, or at least their main funder. We use “funder” as it is often unclear whether their support was financial or in-kind (personnel, infrastructures, etc).

Table 12. Transparency of the revenue streams on the IP website (in %)

Website not coded	16.1
Multiple	19.7
Only one	15.9
None	48.4

N=517

Source: DIAMAS web coding of IPs websites

During the focus groups performed for the DIAMAS Gap Analysis on EQSIP ([Brun et al., 2023](#)), we raised questions about the necessity of and interest in financial transparency. While some were reluctant about the prospect of being financially transparent, other IPs embraced it: *“as a user, having as much information as possible about funding, who is funding it and how, I find that this gives us information about the confidence or reliability we can place in a journal”*. Certain institutions do publish extensive financial information, such as very large SPs like PKP and SciPost.

On the matter of producing a surplus, we asked DIAMAS survey respondents if they were expected to produce a surplus when planning next year’s activities and opportunities for development or innovation. The shares of those IPSPs who are allowed either limited losses or an overspend and those who are not are almost identical (around 20%). An additional 20% is expected to generate a surplus: either to invest in their operations, to create a financial buffer, or to subsidise other activities of the organisation. Only a tiny fraction (below 1%) is expected to generate shareholder value. This means that financial constraints are diverse: some IPSPs have to be strictly self-sufficient or even profitable, while others can have losses, without a clear trend. Nevertheless, being a part of a larger parent organisation can provide a financial safety net for IPSPs. Respondents with a parent organisation are slightly more likely to be permitted limited losses (22%) as compared to independent organisations (17%). Independent organisations will also more frequently not allow for limited losses (24%) compared to those with a parent organisation (18%). 15 companies and 3 corporations answered this question, and we note that they are logically much more often required to generate profit to invest in their operations or to create a financial buffer compared to non-profits or public organisations.

¹³ See <https://www.coalition-s.org/coalition-s-announces-price-transparency-requirements/>, last retrieved on 1 March 2024.

In the follow-up survey, we also asked IPSPs whether they were able to build and maintain a financial buffer to face financial problems or to invest. The results shown in Table 13 reveal a mixed picture, with 39% of respondents having a financial buffer, albeit of very variable duration. In comparison, 30% have no buffer – and probably a further 12% who answered: "don't know". Between these two populations, we find the minority (19%) does not depend on financial contributions.

Table 13. Possibility for IPSPs to have a financial buffer

	n	%
No, we don't have the right to have a buffer	43	11.2
No, we don't	75	19.6
We can continue our operations (even if it reduces our activities in terms of outputs volume or functionalities) without funding	72	18.8
Yes, for less than 6 months	14	3.7
Yes, for 6-12 months	41	10.7
Yes, for 1-2 years	33	8.6
Yes, for more than 2 years	45	11.7
Don't know	45	11.7
N/A	15	3.9
Total	383	100

N = 386 of 685

Field: European IPSPs

Question: Do you have a financial buffer and/or the capability to continue activities if income streams are disrupted?

Source: DIAMAS follow-up survey

Constraints from the outside: Requests from funders

The literature has shown that some funders have had a strong influence on the development of open science, for example, through OA mandates (Lariviere and Sugimoto, 2018). However, that influence has been limited in the case of open data as seen during the COVID-19 pandemic, despite commitments from journals and publishers (Sid-Mahmoudi et al., 2023). DIAMAS wanted to investigate whether funders

have had some influence on IPSP practices through contractual obligations in the same way as they do on authors/institutions/outputs.

As a result, we introduced a set of questions in the follow-up survey about funder requests or requirements as shown in Table 14. If we sum up the two first rows, the most frequent requests are about providing immediate OA (43%), insisting that authors retain their rights (32%), and requiring a licence for content (26%).

Table 14. Requests from IPSP funders

	Immediate full OA was compulsory	Funder imposed a given licence for content	Publishing rights had to stay with the authors	A given publishing format was required (e.g. Epub, XML)	Adopting an "author pays" model was necessary
We did it to get the funding	6.8	5.7	3.7	3.4	2.3
We have done it or would have done it anyway	35.8	20.1	27.9	14.6	5.0
Funders have not requested a change	33.4	47.3	42.0	53.5	64.0
N/A	24.0	26.9	26.4	28.5	28.7

N=383

Field: European IPSPs

Question: Have some funders requested or required you to make any of the following changes?

Source: DIAMAS follow-up survey

On the IPSP side, between a fifth and a third of IPSPs have already implemented requests or would have done so anyway: 36% for the OA request, 28% for that on author rights, and 20% for the licence requirement. Even if their funders did not frequently make such requests (18%), 15% of IPSPs were willing to implement a specific publishing format (such as Epub or XML). By contrast, adopting an "author pays" model is a rare and unpopular policy within our sample since only 7% were asked to do so by their funders.

Depending on the task, between 2% and 7% of IPSPs declared their compliance with a request to obtain funding without having planned to implement the change themselves. In contrast, the Table 14 also shows the common absence of funder constraints on open

science topics, such as immediate OA, author rights and open licences shows that there is no unanimous interest in these matters and that some closed content published by IPSPs is still being funded, just as commercial publishers get funded through subscriptions.

Finally, we would like to underline that funders, donors and sponsors can have a more indirect influence on an IPSP. In the last twenty years, and even more so in the last ten years, public support for alternatives to commercial publishing has been endorsed by different types of institutions from RFOs to HEIs and governmental bodies. This has led to expectations and investments from certain IPSPs towards them. For example, in the case of a certain SP, gathering funds to help publish in an HSS discipline pushed them to systematically solicit their authors for fundraising:

"I'd send a letter saying, there you go, you don't pay any charges. It's perfectly normal. There's nothing to worry about. But we'd like to ask you if you'd like to contact the following person at your institution's library so that your institution can become a member. Because then you'll have access to all the authors at your institution. It gives you free access to the journals on the platform so that you can publish in them at no cost. So it was a huge investment for relatively little return." (Interview #5)

One Western European SP gave the impression that enthusiastic institutions would quickly fund operations more structurally:

"The worst thing that can happen to us is that we'll publish fewer articles, we'll say to authors: we don't have the resources, if you want things to change, talk to your universities, your funding agencies, and get them to start assuming their responsibilities a little better. (...) When I launched the platform, I made a miscalculation, I underestimated the conservatism of academic institutions when it came to funding innovative initiatives in the world of publishing. It was made very clear to me eight years ago that funding would be readily available to scale up a platform like this, and that turned out to be completely untrue, which cost me enormously on a personal level." (Interview #10)

Income reporting and fundraising

We identify two types of activities involving income: Fundraising and reporting. Reporting can address the parent organisation or external stakeholders and fundraising involves the full cycle from soliciting funders and sponsors to the contractual and administrative management associated with the grant.

Reporting

Broadly speaking, IPSPs are accustomed to describing their current activities and their specific needs when they apply for funding. They need to have a precise overview of their costs as they regularly prepare detailed financial reports for their respective funders, sponsors and donors, mostly on an annual basis. These funding applications and reporting activities are sometimes carried out in close collaboration with their accounting services, and some IPSPs have a dedicated accountant for this purpose. As a result, they know what they are spending on their publishing activities, whether these activities are recurrent or a one-time-only operation.

For instance, all UK focus group attendees indicated having a clear understanding of their cost base and the costs of the services they provide, since they have to be able to spell these out to those who are paying (specifically, institutional customers). Moreover, some IPSPs mentioned that they had skilled personnel dedicated to administering this reporting activity. In Finland, IPs stressed that budgeting practices are very formal and established and that this is a requirement for being able to apply for and receive the public funding subsidy. Consequently, IPs here meticulously keep track of all income and cost in terms of finances, both for public subsidy requirements and to follow the formal accounting practices of their parent organisations.

Serbian focus group attendees shared similar knowledge of their respective budgets and costs. It is clear from this discussion that IPs regularly prepare detailed annual financial reports, with a breakdown of eligible costs, for their different funders. Among these financial reports, one is submitted to the Ministry of Science, Technological Development and Innovation. In contrast, others are sent to the IP's management board or institute of the respective organisation, and in some cases, sent to the Serbian Business Registers Agency. The French IP focus group also reported being involved in accurate cost tracking and regular reporting activities. Some emphasised that receiving a recurring financial allocation or time-limited funds comes with milestones that require them to draw up a detailed budget, including income and expenses.

IPSPs demonstrate that they have detailed knowledge of their costs and financial resources despite the diversity of funding forms they are engaged with. They have gradually developed the skills to assume these reporting activities, either internally or with the help of professionals (e.g. a statutory auditor or a certified accountant).

However, such reporting is not as fluid as one might imagine. Not only does it require technical knowledge to navigate the accounting frameworks of each institutional funder, but it also requires time-consuming tasks. As one interviewee clearly explained:

"This is the weakness of the system. We have to manage funds coming from all over the place, which means that we don't always have the human resources or even the knowledge to manage it well. Because each funder has specific rules, and we're often unaware of these rules. (...) So the big problem for us is that these are often relatively small funds, but they require a huge amount of work and knowledge that we don't have. What the average person like me doesn't have, regarding all the

legislation and regulations surrounding the donation of funds. And in the end, we'd like to get rid of them. It's a very ungrateful thing to say because you're receiving funds, and in fact, you'd be inclined to say: 'well, what the hell have I got myself into, if only someone with the requisite knowledge could do it for us?' (Interview #5)

Beyond the knowledge required, managing the calendar is another aspect of reporting. In some cases, the financial reporting rhythm aligns with the actual schedule of funding sources. The Finnish focus group highlighted that both the state subsidy and the needs of the parent organisation coincide in terms of reporting. But in other contexts, such an alignment is not as smooth. For instance, according to some French IPs, financial reporting activities have to be delivered too far in advance. With accounts closed on November 15 of the previous year, it is not always easy to plan for the next year.

Significant time lags can occur regarding the actual allocation of funds, obliging IPSPs to make financial arrangements between their publishing activities or directly with external service providers. During the focus group in Serbia, some IPs mentioned that, while applications are usually submitted in January, funds allocated by the ministry are usually transferred to their accounts as late as July, so they have to pre-finance publishing activities from other sources. Another way to overcome time lags is making arrangements with the providers of outsourced services to deliver services and get paid later. More dramatically, one IP in Croatia indicated that in their case "the money always comes too late". They received the 2023 subsidy from the Ministry of Science and Education on 20 December 2023. As a result, they are always in the situation of cross-financing from other activities, i.e. borrowing money. Another IP explained it differently during the same focus group. Its representative emphasised the obligation to report until March 1st, but accurate reporting presents no problem for them. Their main issue is making ends meet until the subsidies arrive late in the year.

Fundraising

In the follow-up survey, we asked IPSPs to explain why they would not apply for time-limited funding. Table 15 shows how divided our population was considering this question.

Table 15. Reasons for why IPSPs do not look for or apply for time-limited funding

	n	%
We do not have the capacity to do so	117	30.5
We do not need them	53	13.8
This is standard practice	52	13.6

	n	%
We always look for grants, subsidies or sponsorship	165	43.1
Total	387	101

N=383

Field: European IPSPs

Question: Reasons for not looking for or applying for grants, subsidies or sponsorship include (multiple answers allowed)

Source: follow-up DIAMAS survey

If a small majority of IPSPs apply for grants, the other half is divided between those IPSPs that do not need monetary and in-kind support and a small third that does not have the human capacity to apply. We therefore looked into the needs associated with grant management and whether organisations actually comply.

During the focus groups, time-limited funding was described as bringing precariousness and instability on several dimensions. The first dimension is the workload that it demands of applicants and grantees. Several IPSPs estimate the time consumed to apply for time-limited grants in terms of weeks or months. As a French IP stressed during the focus group: "all these one-shot searches are very time-consuming (relative to the fixed-term contract she requested for 2 months)". Had she not spent time on this, she would have been able to work on core IPSP tasks instead. A UK IP even went as far as saying that the workforce was dedicated to fundraising half of the time.

Some were also concerned about the risk that grants bring to service continuity and to the transfer of skills. For example, some infrastructure maintenance relies on a single person's competences, so that person's departure would weaken the service. Other specific skills concerning publishing tasks or institution-related know-how are also person-dependent. One small Diamond IP declared, "we're keeping all our initiatives on oxygen". To prevent this, an IP we interviewed explained that they try to ask for grants only for one-shot actions as they fear that if they begin to use grants for recurrent tasks, they would have to fire skilful colleagues upon whom they depend. But in return, this requires them to negotiate for more regular and long-term funding or reduce their activities.

Grants can sometimes threaten the existence of the IPSP itself. Employees of an IP can be funded by a ten-year program and, when it ends, there is no planned funding solution. Employees must then anticipate and negotiate with partner institutions to make the service permanent after the project ends. Even larger organisations and those that play an infrastructural role are involved in fundraising, although the associated costs in terms of structure must be kept in mind:

"It has definitely been a cost to us. You know, just meeting with people, participating in SCOSS. Like, it was obviously a net win. We took in much more money. But we did have to also invest time in that. SCOSS meetings, presentations, brainstorming sessions, writing up the contracts, even issuing invoices, receiving payments. It's a

whole business that you're doing that certainly has costs. We hired a budget coordinator a few years ago to be able to help us manage this. Again, another cost to raise the money." (Interview #9)

Funders have little guiding influence on the publishing practices of IPSPs, because IPSPs align first and foremost with open access and open science policies. Nevertheless, funders do exert an influence on the activities of IPSPs by demanding extensive reporting and fundraising efforts that are otherwise not central to an IPSP's mission. As already shown in the previous section, the logic of grants versus recurrent endowments can jeopardise sustainability by increasing the costs associated with managing income. This financial management also highlights the importance of the workforce for IPSPs, which is the topic of the next section.

The centrality of the workforce: Contractual, in-kind and voluntary work

A skilled workforce is essential for the publishing organisation to carry out the range of publishing tasks described above. These people can be employed, contract workers or unpaid. What is most striking is that scientific work, especially author contributions, is rarely compensated – with a few exceptions, such as certain systematic review articles or publications targeted to professional audiences, such as doctors or lawyers. The usual line of reasoning is that publication is part of the mission of academics and that, as a result, they are paid by their employers. The case of reviewers is more delicate, and literature increasingly discusses rewarding reviewers, whether symbolically or monetarily (Warne, 2016; Gasparyan et al., 2015), particularly in the face of the evidence of overburdening in the academic workforce (Seveerin and Chataway, 2021).

For journals, book collections or series, most publishers commission scientific editors who do not receive separate payment for this work, whether they are commercial or institutional publishers. The medical domain, where most editors are paid, is a well-known exception (Lee et al., 2021; Jacobs et al., 2023). Tasks other than editorial ones are usually not directly paid either (Edgar and Willinsky, 2010). However, do author contributions, editorial work and other related tasks constitute "in-kind support" or "voluntary work"? This is the subject of the first part of this section.

The second part deals with the very material aspects of in-kind support, especially within IPSPs, their parent organisations and some related bodies, such as editorial boards. It also makes a plea for the recognition of the workforce behind the publishing tasks as a strength of institutional publishing, not a weakness.

The cost is in the eyes of the beholder:

In-kind support and voluntary work

To understand the different categories at stake to qualify the work performed, we suggest considering the case of reviewers for a commercial publisher. From the point of view of the latter, there is symbolic and free access compensation for the reviewer's work, as we can see in the example of Elsevier:

"On Reviewer Hub, you can:

- Download Reviewer Recognition certificates.
- See an overview of your peer review activities.
- Claim 30-day ScienceDirect and Scopus access for accepted reviews.
- Volunteer to review for journals of interest"¹⁴

The researcher might embrace the last point and consider him or herself a volunteer or refuse to work at no cost for a profitable commercial publisher as past petitions as "The Cost of Knowledge" have shown.

From a global perspective, based on the current situation where researchers are not paid by publishers but by their employers, the global cost of journal peer review was estimated to be 6 billion dollars in 2020 (Leblanc et al., 2023). This amount confirms another estimate published earlier, which was interestingly entitled "A billion-dollar donation: estimating the cost of researchers' time spent on peer review" (Aczel et al., 2021). From the point of view of higher education and research institutions, that would be the order of magnitude of their cost and of the bill they might send to publishers. Or, from the perspective of the publishing industry, review contributions could be officially considered as in-kind support from higher education and research institutions. Things become even more complex when we move on to institutional publishing, where the relationships of personal involvement and attachment are even more explicit. Some feedback from Diamond initiatives clearly chose that view:

"You may be asking, if readers don't pay, and neither do the authors, then who pays for publishing at JRSMT? Our editorial tasks are all managed by our willing all-volunteer editorial board, whom we cannot thank enough, keeping our costs very low relative to most journals. The minimal cost per article, for expenses such as website maintenance and DOI subscription, is paid by anonymous philanthropists who support our mission." (Cessna, 2023: 2)

"The editorial team has been working without any financial support, with remarkable generosity, sustained by great passion only. (...) SCIRES-IT has faced many operational challenges, relying mostly on volunteers, and playing a crucial role for scientific communities around the world." (Gallo and Accoli, 2021: 2).

¹⁴ Elsevier, How can I claim my reviewer certificate?, https://service.elsevier.com/app/answers/detail/a_id/14284/supporthub/publishing/, last retrieved 1 March 2024.

Many interviewees from small IPs acknowledged this dimension of voluntary labour on the journal side, considering that some of their contributions were expected. But that would need some recognition as they are part of the institutional publishing activities, as is the case at this West European university press which uses the university repository as their publishing platform:

“Q: Would you consider that the repository staff people are actually doing in-kind work for the publishing part?”

A: That’s an interesting question. I would say in recent years, it has moved away from being in-kind to being a core part of the roles. We’ve gone through a recent restructuring exercise and sort of the publishing component. It was considered as part of the service at that stage. But up until that, I’d say last year, it probably wasn’t really core part. It was more in-kind.” (Interview #2)

Under other circumstances, personnel contributions to IPs may cause them to exceed their assigned workload. They then consider this as in-kind work such as this Eastern European publishing unit towards its hosted journals:

“Sometimes, as part of good cooperation, we complete the archives of university journals, we deposit papers metadata and check metadata of journal archives. And we also share good publishing practices/information with units and external libraries and academic publishers.” (Interview #2)

There is a mismatch between the pride of institutional personnel involved in publishing in fulfilling a community service and the parent organisation’s lack of recognition when this in-kind support causes personnel to exceed their regular workloads. Lack of recognition and uncompensated overtime are clearly at stake in this Southern European University, which delivers OJS-based services:

“How many times and to how many different persons, you know, my director, the professor in charge of libraries, anyone, how many times did I complain about the scarcity of human resources, saying it’s impossible for him to do all the job alone? When I introduce him to the new editorial teams, his surname is Santo Subito. He solves everything and he does so much more than he is supposed to do. So that’s really in-kind, volunteering or whatever.” (Interview #4).

During a focus group, a French IP expressed that it faced the same mismatch when it expanded the type of outputs it was publishing. This IP suddenly needed more staff than revenue. The number of donors increased, but first and foremost people were needed to handle article editing. The IP managed to absorb this increase in workload by two means. Firstly, an engineer employed by a research institution spent more of his working time on the IP even though the employee’s work description had not been

officially changed. Secondly, the IP put out a call for volunteers: people who would agree to work on technical tasks in their free time. Volunteers who accepted this call were primarily early-career researchers.

So there is no definitive separation between costs, in-kind support and voluntary work. Training has often been mentioned during interviews as a good example: how much time are you supposed to spend to train editorial teams and boards, how do you consider frequent changes at the board, and to what extent is such training the IP's responsibility? The way the line is drawn depends on the organisational contexts and the point of view of those who have to define and organise this work. In most of the situations encountered by IPSPs, in-kind work refers to the case where an organisation official considers that its employees dedicate time to institutional publishing tasks, as opposed to voluntary work, which refers to the case where individuals donate their time outside salaried time for these same tasks. In practice, it is very difficult to draw the line between in-kind and voluntary work: is the work in-kind if the manager accepts that the employee devotes part of his working time to institutional publishing tasks, without this being written on the employee's job description? And how can we then qualify the work of reviewing, which is part of research work, without this task ever being recognised in professional evaluations?

Negotiating in-kind support: The official and unofficial IPSP organisation

The DIAMAS survey asked IPSPs about the relative importance of financial revenue and in-kind support. Table 16 below shows that the majority of IPSPs rely substantially on in-kind support (33% very highly, and 15% highly). Conversely, we also note that this type of support is not available for 21% of respondents. In comparison, only 22% of respondents rely very highly on monetary income and 14% highly. This was, however, either unavailable or hardly depended upon by more than a third of IPSPs. Moreover, the few IPSPs who rely heavily on other kinds of resources specified in their text answers that they also rely on in-kind and voluntary work.

Table 16. Monetary and in-kind resources IPSPs rely on (in %)

	Non-monetary or in-kind support	Monetary income	Other
Very high	32.7	21.8	6.4
High	15.0	13.7	2.2
Neither high nor low	9.4	11.1	4.3
Low	6.8	11.3	1.1
Very low	9.4	10.2	3.2
Not applicable	21.0	26.4	69.9

Don't know	5.8	5.6	12.9
Total	100	100	100

Field: European IPSPs

Question: To what extent does the IPSP rely on the following resources?

Source: DIAMAS survey

IPSPs with a parent organisation are very dependent on in-kind contributions (see Table 17). A large majority benefits from facilities and premises (72%), general IT services (73%), service-specific IT services (59%) or Human Resource management (67%).

Table 17. In-kind support from the parent organisation

Type of support	n	%
General IT services	274	72.7
Facilities and premises	273	72.4
Human Resource management, general financial and legal services	251	66.6
Salaries of permanent staff	247	65.5
Service-specific IT services	222	58.9
Salaries of temporary staff	118	31.3
Don't know	10	2.7
Not applicable	28	7.4
Other	23	6.1

N=377 (of 685)

Field: European IPSPs

Question: Does your parent organisation provide the IPSP with in-kind support either in the form of labour, facility costs or other (excluding peer review)?

Source: DIAMAS survey

IPSPs also rely almost completely on their parent organisations for salaries dedicated to institutional publishing: 66% of IPSPs rely on their parent organisation to pay their permanent staff and 31% for their temporary staff. Parent organisations are thus an important provider of in-kind support in diverse forms (e.g. premises, administrative and legal work, IT services, salaries) which are vital for institutional publishing.

Support from the parent organisation is considered essential for IPSPs because it is more stable than grants and external funding and because institutional publishing is essential for scientific dissemination and for the institutions' reputation while being mostly non-lucrative. The interviews show the concreteness of in-kind support, as in the case of this Northern European university OJS-based platform:

"I'm the main administrative resource behind the scenes and I have some help from the IT department to make the upgrades, make the technical issues work, problem-solving all that kind of stuff is done with help from the IT department free of charge for the journals." (Interview #6)

Funders other than parent organisations or governments are less likely to be willing to take part in the funding of IPSPs. These funders are unable to cover the costs of part-time jobs that can be performed by another department of the parent organisation. Without that core support, the IP is in a completely different situation. For example, participants from the Finnish focus group underlined that the perpetuation of IP operations is vulnerable because their work is not compensated at market rates. A consequence of this precarious situation is that Finnish IPs cannot be self-sufficient, and they rely significantly on volunteer or in-kind work, which makes it difficult to ensure that staff are motivated, skilled and available. At other journals, for example, editors-in-chief conduct scientific evaluation alongside copyediting and technical publication processes, which is not recognised in their job evaluation:

"The vast majority of the editors as well are members of the university. So they're sort of an internal in-kind contribution. But in a sense, the university doesn't even know they're running journals on the university platform." (Interview #2)

The organisation of services results in a division of tasks between what is expected from the IP and what is left to other bodies, such as the journals themselves. The relationship between the two makes them conscious of the needs related to publishing operations, but this consciousness is often not shared by the parent organisation as stated by a Northern European university:

"So you can say that the university is paying for this publishing, but I'm not sure that they are aware of what they are doing. But they don't understand how much effort it should be needed to do it well. I think of all this, it's the platform we are responsible for. But the journals need so much more help. They need to make good templates for the articles. They need help with the system, like DOI links, sending in reference to Crossref, setting up a journal, how they should work, what kind of published journal they want, how to find money, things like that." (Interview #1)

This is the same issue when it comes to extending services: you have to mobilise the various university departments, as in this case where a university press from Western Europe wants to become a journal publisher:

“So I talked with my director about it because last year we get several inquiries about, for example, hosting OJS journals or also, in one case, switching a journal. And at the moment, I just can't support it because I don't have the experience for it. So I first need, for example, some time to really work inside of OJS. And the second thing is, of course, I also just need OJS as a hosting service for our IT support here at the university library. So the first thing is my director must ask our IT services department within the university library. Because that would be the next step, not just offer hosting if someone wanted to do this on their own, but also offer some kind of full service via every university press.” (Interview #7)

All of the above examples and quantitative data show the great dependence of IPSPs on their immediate environment, and on their parent organisation in particular. In many cases, tasks are carried out outside the official boundaries of the IPSP, whether they are fully acknowledged or not. The resources made available for publishing activities are therefore negotiated, and this negotiation is all the more favourable if the IP's missions and importance to the parent organisation or associated scientific communities are well recognised.

To sum up, we would like to stress that dependence on labour is not a weakness, but at the heart of IPSPs organisation. As the persons running Punctum Books have written it:

“We have been criticised many times for having a reliance on volunteer labour, having secret backers, drawing upon personal wealth, and receiving “support in-kind,” as if these are inherently bad things.” (Fradenburg Joy and van Gerven, 2023)

As more and more commercial publishers face boycotts, protest letters from editorial boards or even massive resignations, we see limits to the exploitation of the academic workforce and economies of scale. Whatever the output, the services provided require personal and institutional commitment. However, it is the sense of community and belonging that favours their sustainability. Conversely, upscaling at the individual level of IPSPs does not have to be an objective in itself. On the contrary, it is possible to scale small (Adema and Moore, 2021). For an IP based almost entirely on voluntary and in-kind support in Western Europe, the physical and psychological limits and care associated with maintaining relationships with authors and works define the ideal size:

“Q: Do you envision upscaling?”

A: The only topic was whether we wished to downscale, have less than 7 books every two years, especially in COVID-19 times. But we finally decided to keep the same volume, as we still care a lot about these books.” (Interview #1)

This does not mean giving up on the development of institutional publishing, but just like commercial publishing, it is also based on the commitment of people but with different purposes than scaling up and making profit. An alternative is to think about institutional publishing on the scale of the ecosystem, by facilitating collaboration and strengthening the infrastructures that we will deal with in the next section.

Underlying infrastructures and collaboration

IPSPs are part of an ecosystem of organisations, services and infrastructures that depend on various relationships with partners, users, supporters and funders. We previously highlighted that IPSPs deal with a wide range of operations. In practice, they perform only some themselves, relying on different organisations for others. 75% of the DIAMAS survey respondents use external services (507 out of 679).

This section focuses on the distribution of tasks between IPSPs and their collaborations with other organisations. We first develop the case of digital accessibility which is soon to be ruled by the EU Web Accessibility Directive. How does the ecosystem deal with this new framework, and who takes responsibility for it? Then, we elaborate on IPSP local collaborations. These are sometimes contractual through outsourcing, but more often, this involves voluntary or in-kind work. Certain tasks can mean paying for services provided.

IPSPs strongly rely on technical infrastructures, notably hosting platforms, often developed at a national level (e.g. *Hrčak* for Croatia or *OpenEdition* for France) or international level (e.g. *OJS*). These can be commercial or non-commercial, the latter ones leading to more diverse relationships.

These collaborations bring significant benefits to IPSPs but also come with difficulties. Some tasks are easier to outsource than others for different reasons. On the one hand, technical hurdles can occur: IPSP personnel have to learn to use the tools of their infrastructures and the output format has to be compatible with the infrastructure design. On the other hand, local skills may be lacking for example regarding the conventions of certain outputs. Finally, we highlight the gap between the will to collaborate on the one hand, and the actual lack of relations between most IPSPs on the other.

Accessibility as a case for IPSP collaboration

Accessibility is an interesting case to understand the collaboration of IPSPs. From our previous work set out in the DIAMAS Landscape Report ([Armengou et al., 2023](#)), we learned that digital accessibility is both an important new legal standard for the whole publishing ecosystem and DIAMAS respondents see it as a currently difficult challenge. The majority did not have an accessibility policy until June 2023: 42% declared that they did not have one, and 18% did not know. What are the reasons for such a large absence? The majority of IPSPs indicated a lack of resources as either a “very important” or “important” challenge in meeting accessibility requirements (60%),

followed by technical limitations of existing infrastructure and lack of expertise (50% and 51% respectively).

So how do we solve this digital accessibility problem? By providing more expertise to the IPSP or throwing more funding at it to outsource it? Or is it rather an infrastructural issue, then to be dealt with at a bigger scale? As making academic publications and institutional publishing platforms accessible has consequences for a very large number of features and institutions in the ecosystem, we need to consider a range of aspects, and the challenges that need to be solved.

First, to meet regulation requirements, there are editorial teams which may push for these whereas others may be completely indifferent to meeting them. For instance, this French IP made the case during a focus group performed for the DIAMAS Gap Analysis ([Brun et al., 2023](#)):

"During a debate on compliance with digital accessibility standards on a journal website, the head of the journal said: "I don't have a problem with a few visually impaired people having problems with it". So, sometimes we start from a very long way off."

The following West European IP is more optimistic for the journals hosted on its platform, assuming the same education and training role:

"So we try to facilitate them to do as best a job that the journals can. We would share those types of material. And there's also a like it's an Irish accessibility guide to the platform isn't particularly good at accessibility." (Interview #2)

Second, in addition to journals, there is another type of stakeholder – authors – that this UK IP hopes to mobilise around the compliance with digital accessibility regulation: *"we need to create accessibility guidelines for all users. Authors also have to learn how to write some legends for figures."* Considering all the actors on the supply side, during another focus group, a large SP of a hosting platform considered that it was its role to take global action to implement the new standards:

"We have to improve accessibility. We are publicly funded, so regulations and requirements apply strictly to us, ePub disseminating in libraries must be compliant. We also have to make an audit to confirm their compliance with the Directive and then make a statement, work on the platform interface (contrast, description of images...) and so education of the community, publishers and editorial teams to get them involved."

Third, IPSPs can search for subcontractors to specifically handle this kind of task. Just like income management, this is another task that needs to be carried out for the head of this Central European book publisher:

"I think we make the same way as I mentioned. We first need to get more efficient and more on an expert level. So, for example, regarding accessibility that's currently a large part of my work. So to get some ideas. We must solve it by giving it outside. So sending ebooks to India and making them accessible; that will be one part of 2024 to solve this problem of digital accessibility." (Interview #7)

Alternatively, some IPSPs can fully delegate the work to become compliant to subcontractors as they often do for other tasks such as assigning DOIs and producing XML. During the French focus group an IP stated:

"On visual accessibility, we probably won't do anything. We know that there are going to be requirements. We have the legal and scientific responsibility, but we subcontract all the implementation: the subcontractors are going to have to learn how to do it. It was the same thing back then with XMLisation. It's rather reassuring because we don't have the in-house capacity."

Finally, all IPSPs can expect infrastructures to deliver here, as their very mission is supposed to encapsulate standards, as mentioned by a Croatian IP in one focus group: "Accessibility is ensured by using OJS and HRČAK" (the latter being the Croatian national platform for OA journals).

Even in broad strokes, every part of the ecosystem deals with digital accessibility and envisioning how to meet its new regulation helps us highlight the consequences in terms of monetary and personnel resources. It is clear that, depending on the stakeholder configuration, accessibility requirements are entirely assumed by an IPSP, distributed among different stakeholders, or borne almost exclusively by large infrastructures. We will now look at these configurations beyond the digital accessibility topic.

Local collaborations:

In-kind, voluntary and outsourced support

In the follow-up survey, we surveyed IPSPs about their external services and their economic form (in-kind, outsourced or voluntary support). This reflects the dependence of IPSPs on services provided by the parent organisation and other bodies like editorial teams (see Table 18). Almost one-third of the follow-up survey respondents benefit from in-kind support executing editorial services (32%), production services (30%), IT services (34%), communication services (34%) and administrative, legal and financial services (39%). Volunteers carry out editorial work (37%), communication (23%), and training and advice (21%). We discussed earlier how these two forms (in-kind and voluntary support) may cover very similar configurations in practice.

Table 18. Forms of external services

	Editorial services	Production services	IT services	Communication services	Administrative, legal and financial services	Training support and / or advice on publishing policies and best practice	Other
In-kind	31.9	30.3	34.2	33.8	38.9	26.5	6.6
Outsourced	21.7	55.1	55.6	10.9	15.2	16.2	39.3
Voluntary	37.3	15.5	9.7	23.4	10.3	20.8	3.3
Don't know	1.6	0.6	1.3	3.2	4.2	4.4	9.8
None/Not applicable	28.8	20.1	16.7	37.5	36.6	40.7	44.3
N	451	472	473	432	429	427	61

Field: European IPSPs

Question: Does the IPSP depend on any of the following external services and how are they provided to you? (multiple answers allowed)

Source: DIAMAS follow-up survey

IPSPs also depend on a series of outsourced tasks paid to service providers. In the DIAMAS survey we asked IPSPs to list up to five external services they work with. Most of these tasks are carried out by local providers. One of the reasons for this is that the national/local market is the legal framework of procurements, as explained in several focus groups. It is much easier to operate at such a scale both for service providers and their clients of a given country, as the rules are better known by local companies. From this list of partners, we also note the variety of service providers, from individuals performing copyediting or translation to accounting services.

These two sides may be completely separate in some cases or deeply intertwined in others, as in the situation of this Southern European IP on IT services:

“We provide editorial support, but as the platform is outsourced, anything to do with the platform, meaning the email to the reviewer doesn't go out, or we don't receive emails from a domain or something like this, this is up to the service provider. (...) So we have a ticketing service, which, of course, is a cost, because you have an hourly cost. So any problem, to solve any kind of technical problem was a cost. And of course, it was a cost on our side. (...) We are in the process of changing right now because the contract expires at the beginning of March. So right yesterday, we decided, because we had to get three offers from different service providers, we decided on a new service provider, which is Company X. And of course, they asked for less money. But we also changed the kind of service, because we no longer outsource the hosting. So the hosting will be on the servers of our university. They will only do maintenance and ticketing and things. And now they only run the OJS, I don't know, the plug-ins and updating, the upgrading to the latest stable version and so on. But the hosting is back at the Department of Computer Science here at the University.” (Interview #4)

In this remarkable narrative, the delineation of what stays in-house and what is outsourced and how various domains interact, such as editorial matters and IT, is clearly laid out. The three aims of this collaboration are to save costs, to reinforce collaboration within the parent organisation, and control what is outsourced. Of course, some choices are easier to make in other settings and have fewer consequences, like using a DOI agency at no cost, thanks to some local ties.

Alternatively, some IPSPs go for integrated commercial services as do some Serbian ones, as heard in one of our focus groups. Three IPSPs chose a local non-profit firm providing a package of DOIs, plagiarism screening, general journal pages and content display, and bibliometric analytics. Such outsourcing takes the IPSP less work but needs more financial resources, e.g. it represented 20% to 30% of the annual budget, although it was described as affordable. Exceptionally, the ones with more monetary resources can pay for an extra package from a commercial international platform as described by a Croatian IP during another focus group:

“We have webpages within the Society's website, we are available on Hrčak, but also on the Sciendo De Gruyter platform. It provides technical solutions that we can't do on our own as our personnel do not have IT or library backgrounds. So we are satisfied with the cooperation, it contributes greatly to our international visibility, but it costs a lot.”

These international partnerships with commercial entities are very rare in the ecosystem. For example, only one IP mentioned the use of Scholar One Manuscript Management developed by Clarivate. The only exceptions are anti-plagiarism software/platforms (iThenticate gathers 14 occurrences in the free-text answers, Turnitin only 3), such as this UK IP in a focus group:

“We are considering an arrangement with iThenticate because we would like to offer plagiarism checks to our hosted journals. We think that the Ministry would provide funding for this, but there are many organizational issues involved such as time

restraints, and insufficient staff. So it may be difficult to define the funding request for the Ministry.”

This final example underlines how resource constraints operate when deciding to provide services based on in-house development, buy market solutions, to maintain them or simply to outsource a service at cost. The alternative to this web of relationships, contracts and fine adjustments is to use open infrastructures such as hosting/publishing platforms and systems.

Infrastructures: From users to donors

When asked to name the institutions they collaborate with, 166 provided answers and almost all repeat names pointed to either shared global infrastructures with commercial publishers (DOAJ, Crossref and ORCID) or hosting/publishing solutions, either in the form of a national platform or PKP production (OJS, Open Monograph) which represents only a part of Open scholarly infrastructures (Ficarra et al., 2020). This shows the key role of these infrastructures in the publishing ecosystem. However, this does not tell us about the nature of their collaboration with IPSPs. We can further specify several types of relationships between IPSPs and infrastructures.

The first type is focussed on mere usage. As one French IP said in a focus group: “*We are PKP addicts, we’ve put everything on them.*” Many OJS-based IPs feel the same as they simply use what they can appropriate, sometimes with the help of a local service provider to customise their instance. They can limit their cost and involvement as users, focusing for example, on training as shown above. A similar type of collaboration can be set up with certain national platforms as is the case with a Finnish one, as stated by an IP representative in a focus group:

“The common technical infrastructure, journal.fi, took a lot of pressure off from securing funding as it provides editorial tools and a publishing workflow for free for any Finnish scholarly society that wants to use it and publishes their materials at least as Delayed OA.”

The second type of collaboration here is primarily based on in-house development and integration of existing infrastructure. For example, a French IP developed interoperability with big preprint servers and open archives, and relied on CLOCKSS for preservation. There is a point in such development where some part of the IPSP can itself become an infrastructure, framed as software (e.g. Janeway for Open Library of Humanities) or as a whole platform. We have already discussed the role of infrastructures in setting standards, imposing de facto technical choices, organising communities, and training teams, which is another way of collaborating at a bigger scale than editorial teams. Here is an example of how a key current infrastructure began:

"It started out of an education department at a university. It was born out of educational research. It was born out of an idea to rethink scholarly publishing. This is 1998. The Internet is still relatively new to our institutions. Subscriptions and print are the model. There was this desire to build software that could turn the power dynamics of scholarly publishing upside down and empower scholars to take control of the publishing process and do that within the lens of education. How can we help people who've never published before, never been part of Taylor and Francis or Elsevier or those dominant models? How can we be part of helping them take control? Maybe we could start with making some software that would help."
(Interview #10)

The third type of collaboration involves direct personal interactions and commitment. This may include collaboration via granted projects with national platforms, by providing technical support for the development and maintenance of infrastructure, or by taking part in its governance.

Finally, the fourth type relates to collaboration through donations and support, which may come directly from IPSPs or their parent organisation. We have earlier discussed the SciPost funding model from the SP/infrastructure point of view. On the IPSP side, it typically includes revenues from parent organisations to that infrastructure. Interviews and focus groups with French and UK IPs documented the same kind of streams for DOAJ and PKP.

Collaboration and hopes for the future

So far, we have mainly described asymmetrical collaborations between an IP and a service provider, between an IP and its parent organisation, and between an IP and infrastructures. Peer-to-peer collaboration is particularly rare and takes three forms. 1) Through coalitions, often based on other existing organisations, i.e. an association of research libraries to influence national policies or to campaign for the establishment of new shared facilities as with the Finnish scholarly societies that built a national OJS-based platform (Ilva, 2018). 2) Via the circulation of educational material produced by an IPSP for its use by others and 3) through peer collaboration, even though we were able to find very little evidence, as in the case of this Central European IP:

"We do provide startup services to the journals, but they run on OJS elsewhere. We established a collaboration with the university library in Dresden which has Fachinformationsdienst Musik so it's a little bit more than a repository but it's basically a subject-based service so they run this service for musicology in Dresden and that's why we cooperate with them they host the OJS instance for our journals."
(Interview #11)

Saving costs is a shared motive for collaboration, especially when IPSPs are small-scale structures. IPSPs were asked in the DIAMAS survey for areas where they might consider collaborating with others. All areas of the IPSP workflow have the potential for more consolidation or collaboration with "administrative, legal and financial services" reported by 127 IPSPs at the lowest end and "IT services" at the highest, by 310

respondents. “IT services” (46%), “Training, support and/or advice” (45%) and “Production services” (42%) are the top three areas where there is the highest need for developing consolidated efforts and efficiencies.

Depending on what you consider to be “collaboration”, the envisioned exchanges would happen in domains where they already exist or where there is a large gap between what is needed and what actually happens as peer collaboration between IPSPs. Current collaborations are not horizontal but are rather based on local services and in-kind support centred around a certain IPSP or developed with large infrastructures. Nevertheless, based on the will to collaborate, other initiatives, such as a capacity centre (Becerril et al., 2021), would facilitate experience to be shared more effectively, generate visibility and help exchanges between IPs and service providers.

Stability and future outlook

One of the key issues in sustainability lies in the ability to plan for the future. This section outlines the sustainability challenges that IPSPs face and analyses how they envisage the future. We also examine what kind of desirable and undesirable future developments they envision concerning funding.

Sustainability and funding challenges

The sustainability of IPSPs comes with different challenges. These challenges can be grouped into three main areas: the lack of financial resources; the lack of stability; and permanence in personnel and the dependence on parent organisations.

The DIAMAS survey saw over 200 IPSPs report on their main financial sustainability challenges in full text. The lack of financial resources is by far the main challenge according to them (n=112; 55%). This challenge is associated with several aspects of IPSP funding schemes. Some IPSPs particularly insist on the need to rethink their current financial models to be able to better face current changes: for instance, to imagine sustainable options in the face of the decline of subscribers, to guarantee the cost-income balance, or to secure fundraising work. Other respondents are concerned with the lack of financial resources related to membership fees, the balance between print and digital revenues, or costs related to copy-editing, translation and printing.

These various concerns take on their full meaning in relation to the IPSP’s annual budget. Table 19 shows that a large share of IPSPs (49%) responding to the follow-up survey indicate having a yearly budget under 50k euros. Among them, 21% of IPSPs indicate an annual budget distributed between 1k and 10k euros and another 21% declare this amount to be between 11 and 50k. Another fifth of the sample (23%) quote an annual budget of between 51 and 500k euros. Although these amounts can be

considered significant, they barely cover the full range of publishing activities or services in most situations.

Table 19. IPSP annual budget

	n	%
Less than 1K	28	7.3
1-10K	81	21.0
11-50K	79	20.5
51-100K	46	11.9
101-500K	43	11.1
501K-1M	13	3.4
>1M	15	3.9
Do not wish to disclose	36	9.3
Don't know	45	11.7

N = 386 of 685

Field: European IPSPs

Question: What is the service's annual budget (euros)?

Source: DIAMAS survey

Clearly, the concern for financial resources is related to the volume of activities and services and about the resources available to continue operations. Table 20 shows that almost half the respondents (48%) of the follow-up survey whose volume of publications and services has fallen over the last three years have seen their resources decline. Over the same period, the volume of some IPSP activities has decreased while their resources have increased (15%) or stayed the same (37%). Conversely, other IPSPs have seen their activities increase, whereas their resources have decreased (6%) or stayed the same (42%).

Table 20. Crossed table of the evolution of IPSP activities depending on the evolution of their resource volume (in %)

	Decreased	Stayed approximately the same	Increased	Organisation didn't exist in 2019	I don't know	N/A	Total
N/A	0	0	0	0	0	100	100
decreased	48.1	37.0	14.8	0	0	0	100

stayed approximately the same	10.8	77.7	8.4	0	3.0	0	100
increased	5.7	42.1	47.8	2.5	1.9	0	100
I don't know	0	0	0	0	100	0	100
organisation didn't exist in 2019	0	0	0	100	0	0	100
Total	10.4	53.8	24.5	4.7	2.6	3.9	100

N=383

Field: European IPSPs

Question (row): In the last 3 years (2019-2022), has the volume of your publishing activities and services...?

Question (column): In the last 3 years (2019-2022), have your resources...?

Source: DIAMAS follow-up survey

Generally speaking, even if the financial resources have stayed the same or barely increased, they never cover all the costs involved in the publishing activities or the services provided.

Such a lack of resources can stand in the way of the IPSP on several levels. Of those who provide technical challenges in the DIAMAS survey, by far the most respondents, 60%, report financial constraints in providing adequate resources for the infrastructure and services (see Table 21). Financial constraints are an issue for 28% of respondents when archiving, backing up or preserving content and software, for 24% when trying to achieve and maintain interoperability with other services, and supplying and enriching metadata or PIDs affects 23% of IPSPs.

Table 21. Technical challenges posed by a lack of resources

	n	%	n total
Providing adequate resources for the infrastructure and services	351	59.8	587
Archiving, backing up or preserving content and software	146	27.8	526
Trying to achieve and maintain interoperability	127	24.1	526

with other services			
Supplying and enriching metadata / PIDs	125	23.1	541

N=383

Field: European IPSPs

Question: For the following statements, please select the challenges the IPSP faces.

Source: DIAMAS survey

Indexation is a crucial tool that provides access and visibility to many outputs of IPSPs. Access to financial resources for certain services proves to be difficult. One-time or annual fees for membership of organisations/ associations/ coalitions is an important or very important challenge for 44% of respondents. We see similar figures for monthly fee charges where 43% of IPSPs report this as an important or very important challenge.

The lack of resources is also reported as either an important or very important challenge when seeking to meet accessibility standards by 181 and 227 IPSPs respectively, which is 68% of respondents of the DIAMAS survey (N = 603 of 685).

In short, a significant majority of IPSPs report having financial constraints in providing adequate resources for their infrastructure and services, particularly in the area of indexing and, above all, in meeting accessibility standards. Additional resources are therefore vital for IPSPs to be able to comply with accessibility standards and to keep them up to date.

A second financial sustainability challenge relates to personnel resources. This challenge has been regularly pointed out in the focus groups, interviews and the DIAMAS survey (in which it amounts to n=29; 14%). IPSPs report far too many staff being employed on a limited-time contract basis. This situation causes high turnover in the team. This can result in a feeling of unfairness, waste of human resources, job insecurity, and staff shortages. It can lead to the need for staff to have a wide non-editorial skill set in some cases. IPSPs point out their institutional fight for the renewal of positions or the need to stabilise human resources, their strategies to secure jobs through civil servant recruitment, and the need for the long-term provision of personnel. Simultaneously, some respondents insist on the important role of volunteering and local skills, seeing them as fragile resources to sustain Diamond OA. Voluntary work is crucial to sustaining some services, such as copy-editing and typesetting.

Some IPSPs are concerned about making their activities last into the near future. The lack of management resources to effectively monitor the entire workflow and to secure the competences needed is another challenge that is underscored. Respondents also describe limited resources available to researchers running OA publishing operations as an issue. Greater availability of technical staff could ease the workload. Overall, most of the respondents who addressed this topic expressed the wish that more public service positions in academic publishing would be opened.

A third financial sustainability issue for IPSPs concerns the ambivalent relationship with the parent organisation (n=14; 7%). Respondents here stress the administrative or financial dependence on the parent institution. Such a reliance is seen as positive when it enables IPSPs to run their service. However, parent organisation support can be considered constraining. For instance, the volume of funding or the annual-based budget from the parent organisation is both celebrated for its regularity and criticised as it prevents the IPSP from exploring other self-financing formulas. This is especially noteworthy as financial support from the parent organisation is a crucial revenue stream for a large number of IPSPs as outlined above. It should also be noted that from the perspective of the university management of some IPSPs, the development of Diamond OA journals is not a priority. As seen earlier in this report, dependence on the parent organisation is essential but also experienced as a double-edged sword.

Other challenges mentioned to a lesser extent include the uncertainty of the public finance system, the competition for subsidies, the increasing expenses generated by technical costs dedicated to the production and maintenance of infrastructures, and inflation.

Knowing and controlling the IPSP future

When questioned about their future, IPSPs show little room for manoeuvre. As shown in Table 22, most IPSPs believe that they are in a position to continue publishing, rather than needing to close down their service. 43% state that their resources are adjusted to their current and future activities, while 21% do not know due to a lack of resources whether they can offer the same service in the next few years, and 5% are regularly at risk of having to close down. Moreover, one-third consider that they cannot grow or expand (34%) or improve their services (38%) due to a lack of resources. Only 16% consider that they have some resources available to use for experiments, innovations and developments.

Table 22. Agreement with statements on the financial situation of IPSPs

	%
our resources are adjusted to our current and future activities	43.3
we don't know whether we can offer the same service in the next few years due to a lack of resources	21.4
we would like to grow or expand our services, but currently can't due to a lack of resources	33.7
we would like to improve our services, but currently can't due to a lack of resources	38.1

we have some resources for experiments, innovations and developments	16.2
we are regularly at the risk of having to close down	5.2

N = 383

Field: European IPSPs

Question: Which of the following statements for your current status applies to you?

Source: DIAMAS follow-up survey

Most of the IPSPs therefore seem to have settled into somewhat restrictive positions in which they must adjust to their current constraints, sometimes to a worrying degree, with little room for manoeuvre to undertake long-term transformations of services. This appeared very clearly in the interviews. Expanding to new services or more volume, which should entail recruiting new staff, often involves the additional challenge of negotiating with the respective IPSP's parent organisation for additional positions to be opened.

When we asked IPSPs in the follow-up survey what they would do if they obtained more permanent or one-time funding, they could rank their hypothetical expenditure items in order of priority. With more permanent funding (see Table 23), the most significant IPSP priorities would be to develop publishing functionalities or services (56% cited it, 22% ranked it first) and personnel costs (44% in total, 23% in first). This is in line with their core missions. The Serbian Focus Group reflected on this, for example: IPSPs would like to be able to employ more people because asking for more financial resources only makes sense if they have people who could take responsibility for new tasks. For the moment, part of their activities is done on a voluntary basis and they would like these activities to be rewarded.

Table 23. Activities IPSPs would fund with more permanent funding

	Cited	Ranked first
development of publishing functionalities or services	55.7	21.7
personnel costs	44.1	22.7
innovating the editorial process	38.9	8.9
copyediting, language editing	33.4	11.0
graphics, design, layout, format production	31.1	8.9
search and visibility optimisation	30.8	8.1
online hosting, archiving and preservation	25.4	6.8
translation services	17.2	5.2
supporting other costs of the parent organisation	5.2	0.8

N = 383

Field: European IPSPs

Question: If you were able to secure more permanent funding, which activities would you fund?

Source: DIAMAS follow-up survey

More extensive editing and editorial and technical practices would also be prioritised, but with less urgency, if more permanent funding were available. 39% would like to innovate the editorial process, 33% to invest more in copy or language editing, 31% in search and visibility optimisation, 31% in graphics, design, layout and format production, 25% in the online hosting, archiving and preservation and 17% in the translation services. Conversely, very few IPSPs would choose to support other costs of the parent organisation if they should receive 5% extra funding. IPSPs ranked their first choices according to a similar hierarchy of priorities, leaving an important gap between the two preferred options and the rest of the options listed. One-fifth of respondents expressed preference for the development of publishing functionalities and services, and personnel costs. One-tenth would prioritise copy-editing, innovating the editorial process and graphics.

The priority hierarchy is similar when it comes to one-time funding. Nonetheless, Table 24 shows two differences. Firstly, IPSPs prefer funding personnel costs with permanent funding (44% overall and 23% ranked it first) as compared to one-time funding (31% overall and 11% cited in first place). Secondly, search and visibility optimisation is an expenditure that is considered more suitable for one-off financing (42% overall and 12% in first versus 31% and 8% for permanent funding).

Table 24. Activities IPSPs would fund with one-time funding

	Cited	Ranked first
development of publishing functionalities or services	58.5	31.1
innovating the editorial process	44.9	11.7
search and visibility optimisation	42	11.5
graphics, design, layout, format production	36.0	9.4
personnel costs	30.5	10.7
online hosting, archiving and preservation	25.3	9.1
copyediting, language editing	19.8	4.4
translation services	16.7	4.7
supporting other costs of the parent organisation	8.1	1.3

N = 383

Field: European IPSPs

Question: If you received one-time funding which was not restricted to any particular funder's strategy, which activities would you fund?

Source: DIAMAS follow-up survey

All these results confirm the findings of Dufour et al. (2023) on Diamond journals, which state that more funding would be required to be able to transform some unpaid tasks into paid tasks. In line with the challenges detailed above, more funding is most needed to expand services, mostly by paying permanent employees to perform them, coming back to the centrality of the workforce. During the interviews, we asked whether IPSPs could withhold the growth of their journals/book collections and we almost always had the same answer, here illustrated by this OJS-based Northern European IP:

"I think a real growth would be a problem. Because it's a lot of work to get a journal going. And I think it's quite intensive, at first for new journals, not just for the journals themselves, but also for the guy that kind of provides the service. And that's me. So I think that would be too much for my resources." (Interview #6)

As indicated above, upscaling is not necessarily the trajectory most IPSPs desire. However, for those who want to go that way, it requires resources to follow the same trend, as in the case of a Western European service provider:

"The growth rate is around 30% per year, but we have had more exceptional years, for example in 2022 we doubled. This poses a huge challenge because funding obviously isn't going to keep up. It's very difficult to stabilise a growing organisation like that." (Interview #10)

Envisioning the funding landscape: Who should pay for IPSP services?

We also cross-referenced the responses obtained in the follow-up survey with the focus groups concerning the support ecosystem for IPSPs. The aim was to gauge IPSPs' wishes in this area, independently of their existing legal or budgetary constraints. We nevertheless tried to take the current IPSP situation into account by ensuring that those who produced journals answered the questions about journals and the same for books, hence the different total headcounts for those questions. In the follow-up survey, IPSPs were given the possibility to rank up to three choices.¹⁵ We first asked who should pay to support journals. Table 25 shows the four most desired sources of funding. In descending order, these are public funding (66%), followed closely by RFO funding (62%), then institutional support (51%), and finally a global scheme (42%). The following funding sources were much less selected: around one-fifth for authors' institutions and libraries.

¹⁵ Those who answered almost always did it as (between 90% and 99% used 3 options).

Table 25. Desired funding sources for academic journals

	Cited overall		Cited in first	
	N	%	N	%
Local / or national public bodies through subsidies or grants, including ministries	230	65.9	107	30.7
Research funding organisations or agencies	217	62.2	59	16.9
Our institutions/societies themselves, through monetary or in-kind support	177	50.7	80	22.9
Global funding schemes available to any publisher or service provider	146	41.8	36	10.3
Authors' institutions (or their libraries) from dedicated OA funds for their employees	78	22.3	25	7.2
Libraries interested in your outputs (through donations, membership models, Subscribe to Open or freemium services, etc)	71	20.3	14	4.0
Authors covering the costs of publishing from their research grants	44	12.6	6	1.7
Readers through print sales	12	3.4	0	0.9
Authors covering the costs of publishing from their own personal resources	10	2.9	3	0.9

N=349

Field: Europeans IPSPs who publish or provide service for journals

Question: Who should cover the cost for your service's OA publications or publication services concerning academic journals in your opinion?

Source: DIAMAS follow-up survey

Participants of the focus groups expressed similar choices. We note that public authorities were cited in countries where they already play an important role, for example in France, Croatia and Serbia. A global scheme was mentioned by participants in the UK and Serbian focus groups, which is somewhat surprising. The two most frequent first choices were also the local/national body (31%) and the parent organisation (23%). Lastly, author-pays models were hardly favoured by any IPSP as the first choice and remained the most marginal for the three choices cumulated.

Concerning books, Table 26 shows similar results in the “Cited overall” column, with the same four categories standing out and an absence of support for author-pays models. We also note that even though the choice to source funding from sales of print books is higher than choosing to source funding from sales of print journals, it remains very marginal (13% against 3% for journals). Despite membership models existing more often for books, this did not seem a priority for respondents: 25% chose it, but only 6% ranked it first.

Table 26. Desired funding sources for academic books

	Cited overall		Cited in first	
	N	%	N	%
Local / or national public bodies through subsidies or grants, including ministries	123	59.1	57	27.4
Research funding organisations or agencies	111	53.4	30	14.4
Our institutions/societies themselves, through monetary or in-kind support	84	40.4	41	19.7
Global funding schemes available to any publisher or service provider	83	39.9	17	8.2
Libraries interested in your outputs (through donations, membership models, Subscribe to Open or freemium services, etc)	51	24.5	12	5.8
Authors’ institutions (or their libraries) from dedicated OA funds for their employees	48	23.1	20	9.6
Authors covering the costs of publishing from their research grants	30	14.4	9	4.3
Readers through print sales	27	13.0	3	1.4
Authors covering the costs of publishing from their own personal resources	7	3.4	1	0.5

N=208

Field: Europeans IPSPs who publish or provide service for books

Question: Who should cover the cost for your service’s OA publications or publication services concerning academic books in your opinion?

Source: DIAMAS follow-up survey

Using the same list of funding streams, IPSPs were then asked which funding streams should *not* fund journals. Table 27 shows the spectacular rejection of author-pays models whether from the authors’ own resources (82%) or through authors’ research

grants (49%). Print sales are also largely rejected as a funding model (63%). To a lesser extent, funding from authors through their institutions and libraries is also frequently rejected (24%). It should be noted that IPSPs may consider these sources of funding undesirable for several reasons: because they are morally reprehensible, or because they do not correspond to the way their services operate (too unstable, require too much work, etc.).

Table 27. Undesirable funding sources for academic journals

	Cited overall		Cited in first	
	N	%	N	%
Authors covering the costs of publishing from their own personal resources	285	81.7	209	59.9
Readers through print sales	220	63.0	53	15.5
Authors covering the costs of publishing from their research grants	170	48.7	21	6.0
Authors' institutions (or their libraries) from dedicated OA funds for their employees	84	24.1	8	2.3
Libraries interested in your outputs (through donations, membership models, Subscribe to Open or freemium services, etc)	80	22.9	8	2.3
Our institutions/societies themselves, through monetary or in-kind support	51	14.6	12	3.4
Global funding schemes available to any publisher or service provider	26	7.4	5	1.4
Research funding organisations or agencies	18	5.2	4	1.1
Local / or national public bodies through subsidies or grants, including ministries	14	4.0	2	0.6

N=349

Field: Europeans IPSPs who publish or provide service for journals

Question: Who should not bear the responsibility for financing your service's OA publications or publication services concerning academic journals in your opinion?

Source: DIAMAS follow-up survey

Finally, we asked IPSPs involved in monograph publishing which funding streams should not be used to fund books. Table 28 shows the same rejection of author-pays models, print sales, authors' institutions and libraries as in the previous table. The overwhelming first choice as an undesirable source of funding are the authors' personal resources (64%).

Table 28. Undesirable funding sources for academic books

	Cited overall		Cited in first	
	N	%	N	%
Authors covering the costs of publishing from their own personal resources	168	80.8	133	63.9
Readers through print sales	109	52.4	23	11.1
Authors covering the costs of publishing from their research grants	92	44.2	18	8.7
Authors' institutions (or their libraries) from dedicated OA funds for their employees	53	25.5	2	1.0
Libraries interested in your outputs (through donations, membership models, Subscribe to Open or freemium services, etc)	46	22.1	3	1.4
Our institutions/societies themselves, through monetary or in-kind support	39	18.8	4	1.9
Global funding schemes available to any publisher or service provider	19	9.1	5	2.4
Research funding organisations or agencies	10	4.8	3	1.4
Local / or national public bodies through subsidies or grants, including ministries	10	4.8	1	0.5

N=208

Field: Europeans IPSPs who publish or provide service for books

Question: Who should not bear the responsibility for financing your service's OA publications or publication services concerning academic books in your opinion?

Source: DIAMAS follow-up survey

The DIAMAS survey sample is dominated by Diamond outputs. It is therefore not surprising that the author-pays model is overwhelmingly rejected. Nevertheless, this funding source also raises organisational questions. If we look at how this funding is provided, and not just at the type or origin of the funding stream, the focus groups show that there is a desire for the resource to be stable over time, or even to increase in case traditional revenue streams like member contributions for learned societies disappear,

but also for it to reach the IPSPs in good time, given the challenges detailed above. A permanent subsidy from the parent organisation or public bodies is a better match for organisational expectations of stability, specialisation, and availability of funding without any need to enter grant competitions.

To sum up, IPSPs have a clear view of the challenges they face. The main ones are the lack of financial resources, the lack of stability and permanence in personnel, and the dependence on parent organisations. Consequently, with more resources, they would primarily invest in personnel to extend their services, notably on publishing production tasks. Their vision for the funders landscape is very consensual: the rejection of author-pays solutions, the reinforcement of current funders (public bodies, institutions), and the new involvement of research funding organisations.

Conclusions

Diamond OA is an ecosystem in which institutional publishers and service providers (IPSPs) interact and perform a range of specific tasks. Our investigations show that there is no definitive set of tasks that all institutional publishers share. We rather see a combination of options and services that are distributed between the IP, its parent organisation, service providers and academic personnel. Moreover, authors or editorial teams sometimes depend on the eligibility criteria of their institutional publishing outfits as IPs are deeply grounded in the communities they serve. Institutional publishers are therefore diverse in nature and as a result of their missions, size and service provision, some of them are bound to upscale while others will seek to sustain their current size. The sustainability options available to them and the choices they make are also influenced by these factors.

The population of IPSPs that responded to the DIAMAS survey utilises diverse funding models. Some mix subscription fees or APC with Diamond funding streams. For a small majority of institutional publishers or service providers who are fully Diamond OA, the role of the parent organisation is paramount for their basic support, especially in the form of in-kind support such as personnel, services. Some also have a dedicated budget. Above and beyond this core support, which may also come from a public/governmental body, the full Diamond IPSP population may be separated into two halves. The first one has only one or two funding streams, while the second has three or more, which may include internal revenue such as print sales or advertising or external revenue such as Voluntary Author Contributions and grants or subsidies from different organisations.

The landscape of funders, sponsors and donors who support institutional publishing in Europe is very clear-cut. Parent organisations and public national or regional funders are the main local supporters. Research funding organisations and international funders, however, currently marginally support non-commercial needs in contrast to

the significant support that they give to commercial publishing through APCs and BPCs.

Budget management is a secondary task for IPSPs compared to those of commercial publishers, where this is crucial. Although only a minority has a financial buffer and a small majority has an approved budget, almost all track their expenses and revenues in some form, especially in the interests of their funders, sponsors and donors. One should point out that grants often place a burden on IPSPs as the search for money, its management and reporting activities weigh on them. Moreover, a strong minority of IPSP uses time-limited grants to run their operations.

The workforce within and outside IPSPs is more central to the sustainability of an IPSPs than revenue streams. However, the exact organisation and contribution of this workforce is often unclear since it depends on institutional definitions whether work is considered to be voluntary, in-kind or paid for a given task. As a result, part of the workforce is often employed outside of the boundary of the IPSP and within the parent organisation, academic bodies or infrastructures, which means that the IPSP has to negotiate with different institutions for resources.

Peer-to-peer collaboration is particularly rare as collaboration between IPSPs is almost exclusively asymmetrical. This mostly happens between an IP and a local service provider, between an IP and its parent organisation, or between an IP and infrastructures. Current infrastructures are key to scaling up the entire IPSP ecosystem. Where there is a will to collaborate, new cooperative relationships and activities would be useful, such as centralised information on publishing service providers.

When asked about their desired future, IPSPs have a clear view of the challenges they face. The main ones are the need for more financial resources, the lack of stability and permanence in personnel, and the dependence on parent organisations. With more resources, they would primarily invest in personnel to extend their services, notably on publishing production tasks. Their vision for the funders landscape is rather consensual: the rejection of author-pays solutions, the reinforcement of current funders (public bodies and institutions), and the necessary new involvement of research funding organisations. Finally, IPSPs who have one can also experience an ambivalent relationship with their parent organisations: they both rely on them and reluctantly depend on them. With such dependencies come restrictions, e.g. administrative reporting, but also benefits as some parent organisations are putting high value in their related outputs and are willing to support them whatever happens with other funding streams. Sustainability cannot be considered at the level of the individual institution alone. If we are to envision the future, we need to look at institutional OA publishing at the national and international policy and practice ecosystem level. Supporting infrastructures that facilitate the development of small to mid-sized IPSPs and efforts that connect, build capacity and share resources has the potential to make this ecosystem more technically and financially sustainable in the mid to long term.

Recommendations

The IPSP ecosystem is clearly underfunded and needs additional resources, in income and personnel, from funders, sponsors and donors. Contrary to the EQSIP publishing standards, this report does not recommend universally applicable good practices. IPSP funding models are as diverse as their local ecosystems so there is no single best way to fund or support their activities. As funding currently mostly depends on that of national and local institutions, we recommend the perpetuation and the development of permanent public government funding, including national funders collaborating to fund Diamond OA and also to fund IPSPs whose work benefits many that are not based in the country of a funder. International funding would bring more resources and empower IPSPs with no support from their local environment or national policies. It is important that more stakeholders who have a key interest in Open Access (e.g. for those setting OA/OS policies or seeking to meet OA, DEI or SDG targets) contribute to the funding of Diamond OA.

Unlike commercial publishers who rely on relatively stable resources from public and quasi-public institutions, funds directed to the Diamond ecosystem often currently take the form of time-limited grants. We strongly encourage national OS policymakers, their public institutions and Research Funding Organisations to strategically invest in funds to pay for the IPSP operations and innovate in the Diamond OA sector by developing new and existing services. These funds then need to be provided in ways that do not generate significant additional administrative labour and thus transform grants into financial burdens.

In addition, it is paramount that public institutions and research funders help to fund the maintenance and operations of such infrastructures. Ideally this would be done not through time-limited funds but through other more substantial, preferably recurring and longer-term funds for institutional publishers and service providers. Large infrastructures play a crucial role in the ecosystem, particularly those that are not shared or supported by commercial publishers such as Diamond hosting platforms and software. Infrastructures are the key area to transform practices at a large scale. We therefore strongly recommend that local, regional, national and international funders support them. This will help strengthen OS, and specifically the Diamond OA ecosystem, since funding infrastructures that support many is critical to sustain national and institutional infrastructures and to minimise the cost and burden to small IPSPs.

Finally, all those who have helped to sustain the archipelago of institutional publishers and service providers over the years must be recognised for their continued support. It is in particular universities, academic libraries, research institutions, and public institutions that have played a pivotal role in sustaining institutional publishing. We highly recommend that these organisations continue to commit to providing fixed and permanent funding for local initiatives to uphold and stimulate bibliodiversity. They can

furthermore acknowledge and reward the work carried out for Diamond institutional publishing since it is a prerequisite and a resilient resource for its perpetuation and growth. The level of appreciation of individuals, publishing tasks and IPSPs varies greatly across parent organisations. We, therefore, recommend any action that will bring greater recognition, dedicated budgets, and support from all departments and services at the parent organisation for the greater sustainability of a more equitable scholar-led Diamond OA ecosystem. It is vital to support infrastructures that serve many small to mid-sized IPSPs and efforts that connect and build capacity among them, where resources are shared to make this ecosystem more technically and financially sustainable in the mid to long term.

References

- Abdi, Hervé, and Dominique Valentin. 2007. 'Multiple Correspondence Analysis'. In Encyclopedia of Measurement and Statistics, edited by Neil J. Salkind, 651–57. SAGE Reference Publication. USA: SAGE Publications. <https://personal.utdallas.edu/~herve/Abdi-MCA2007-pretty.pdf>.
- Acocella, Ivana. 2012. 'The Focus Groups in Social Research: Advantages and Disadvantages'. Quality & Quantity 46 (4): 1125–36. <https://doi.org/10.1007/s11135-011-9600-4>.
- Aczel, Balazs, Barnabas Szaszi, and Alex O. Holcombe. 2021. 'A Billion-Dollar Donation: Estimating the Cost of Researchers' Time Spent on Peer Review'. Research Integrity and Peer Review 6 (1): 14. <https://doi.org/10.1186/s41073-021-00118-2>.
- Adema, Janneke, and Samuel A. Moore. 2021. 'Scaling Small; Or How to Envision New Relationalities for Knowledge Production'. Westminster Papers in Communication and Culture 16 (1). <https://doi.org/10.16997/wpcc.918>.
- Alperin, Juan Pablo, Kevin Stranack, and Alex Garnett. 2016. 'On the Peripheries of Scholarly Infrastructure: A Look at the Journals Using Open Journal Systems'. In Proceedings of the 21st International Conference on Science and Technology Indicators. <https://core.ac.uk/download/pdf/76121785.pdf>.
- Anderson, Kent. 2018. 'Focusing on Value - 102 Things Journal Publishers Do (2018 Update)'. The Scholarly Kitchen. 6 February 2018. <https://scholarlykitchen.sspnet.org/2018/02/06/focusing-value-102-things-journal-publishers-2018-update/>.
- Armengou, Clara, Astrid Aschehoug, Joanna Ball, Margo Bargheer, Jeroen Bosman, Victoria Brun, Virginia de Pablo Llorente, et al. 2023. 'Institutional Publishing in the ERA: Results from the DIAMAS Survey', October. <https://zenodo.org/records/10022184>.
- Becerril, Arianna, Jeroen Bosman, Lars Bjørnshauge, Jan Erik Frantsvåg, Bianca Kramer, Pierre-Carl Langlais, Pierre Mounier, Vanessa Proudman, Claire Redhead, and Didier Torny. 2021. 'OA Diamond Journals Study. Part 2: Recommendations'. Zenodo. <https://doi.org/10.5281/zenodo.4562790>.
- Becerril-García, Arianna, and Eduardo Aguado-López. 2018. 'The End of a Centralized Open Access Project and the Beginning of a Community-Based Sustainable Infrastructure for Latin America: Redalyc.Org after Fifteen Years The Open Access Ecosystem in Latin America'. In Journal d'Interaction Personne-Système. Vol. Connecting the Knowledge Commons: From Projects to Sustainable Infrastructure. <https://doi.org/10.4000/proceedings.elpub.2018.27>.
- Bosman, Jeroen, Jan Erik Frantsvåg, Bianca Kramer, Pierre-Carl Langlais, and Vanessa Proudman. 2021. 'OA Diamond Journals Study. Part 1: Findings'. Zenodo. <https://doi.org/10.5281/zenodo.4558704>.
- Brockington, Dan. 2022. 'MDPI Journals: 2015 -2021'. Dan Brockington (blog). 10 November 2022. <https://danbrockington.com/2022/11/10/mdpi-journals-2015-2021/>.

- Brun, Victoria, David Pontille, and Didier Torny. 2023. 'D3.3 Report on the Gap Analysis results_Under EC Review', November. <https://zenodo.org/records/10083615>.
- Budzinski, Oliver, Thomas Grebel, Jens Wolling, and Xijie Zhang. 2020. 'Drivers of Article Processing Charges in Open Access'. *Scientometrics* 124 (3): 2185–2206. <https://doi.org/10.1007/s11192-020-03578-3>.
- Cessna, Stephen. 2023. 'JRSMTE Is a Diamond Open Access Journal for the Global SMTE Education Community'. *Journal of Research in Science, Mathematics and Technology Education* 6(1): 1–3. <https://doi.org/10.31756/jrsmte.611>.
- Chen, George, Alejandro Posada, and Leslie Chan. 2019. 'Vertical Integration in Academic Publishing: Implications for Knowledge Inequality'. In *Connecting the Knowledge Commons – From Projects to Sustainable Infrastructure: The 22nd International Conference on Electronic Publishing – Revised Selected Papers*, edited by Pierre Mounier. Laboratoire d'idées. Marseille: OpenEdition Press. <https://doi.org/10.4000/books.oep.9068>.
- Chi Chang, Chen. 2006. 'Business Models for Open Access Journals Publishing'. *Online Information Review* 30 (6): 699–713. <https://doi.org/10.1108/14684520610716171>.
- Crow, Ray. 2006. 'View of Publishing Cooperatives: An Alternative for Non-Profit Publishers'. First Monday. 2006. <https://firstmonday.org/ojs/index.php/fm/article/view/1396/1314>.
- Crow, Raym, Richard Gallagher, and Kamran Naim. 2019. 'Subscribe to Open: A Practical Approach for Converting Subscription Journals to Open Access'. *Learned Publishing* 33 (2): 181–85. <https://doi.org/10.1002/leap.1262>.
- Csomós, György, and Jenő Zsolt Farkas. 2023. 'Understanding the Increasing Market Share of the Academic Publisher "Multidisciplinary Digital Publishing Institute" in the Publication Output of Central and Eastern European Countries: A Case Study of Hungary'. *Scientometrics* 128 (1): 803–24. <https://doi.org/10.1007/s11192-022-04586-1>.
- Dufour, Quentin, David Pontille, and Didier Torny. 2023. 'Supporting Diamond Open Access Journals: Interest and Feasibility of Direct Funding Mechanisms'. *Nordic Journal of Library and Information Studies* 4 (2): 35–55. <https://doi.org/10.7146/njlis.v4i2.140344>.
- Duval, Julien. 2017. 'Multiple Correspondence Analysis'. *Politika* (blog). 6 June 2017. <https://www.politika.io/en/notice/multiple-correspondence-analysis>.
- Edgar, Brian D., and John Willinsky. 2010. 'A Survey of Scholarly Journals Using Open Journal Systems'. *Scholarly and Research Communication* 1 (2). <https://doi.org/10.22230/src.2010v1n2a24>.
- Farquharson, Jamie Ian, and Fabian B. Wadsworth. 2018. 'Introducing Volcanica: The First Diamond Open-Access Journal for Volcanology'. *Volcanica* 1 (1): i–ix. <https://doi.org/10.30909/vol.01.01.i-ix>.
- Ficarra, Victoria, Mattia Fosci, Andrea Chiarelli, Bianca Kramer, and Vanessa Proudman. 2020. 'Scoping the Open Science Infrastructure Landscape in Europe'. Zenodo. <https://doi.org/10.5281/zenodo.4153809>.
- Fradenburg Joy, Eileen A., and Vincent W. J. van Gerven Oei. 2023. 'What Is Your Threshold? The Economics of Open Access Scholarly Book Publishing, the "Business" of

Care, and the Case of Punctum Books'. *The Journal of Electronic Publishing* 26 (1). <https://doi.org/10.3998/jep.3627>.

Frantsvåg, Jan Erik. 2010. 'The Role of Advertising in Financing Open Access Journals'. *First Monday*, March. <https://doi.org/10.5210/fm.v15i3.2777>.

Fyfe, Aileen, Flaminio Squazzoni, Didier Torny, and Pierpaolo Dondio. 2020. 'Managing the Growth of Peer Review at the Royal Society Journals, 1865-1965'. *Science, Technology, & Human Values* 45 (3): 405-29. <https://doi.org/10.1177/0162243919862868>.

Gallo, Giovanna, and Rita Accogli. 2023. 'Editorial. SCIRES-IT, a "Class A" Diamond Open Access Journal'. *SCIRES-IT - SCientific REsearch and Information Technology* 12 (2). <https://doi.org/10.2423/i22394303v12n2pl>.

Gasparyan, Armen Yuri, Alexey N. Gerasimov, Alexander A. Voronov, and George D. Kitas. 2015. 'Rewarding Peer Reviewers: Maintaining the Integrity of Science Communication'. *Journal of Korean Medical Science* 30 (4): 360-64. <https://doi.org/10.3346/jkms.2015.30.4.360>.

Heinemann, Elisabeth. 2019. 'The Value of Network Sustainability: Why We Join Research Infrastructures'. In *ELPUB 2018*, edited by Leslie Chan and Pierre Mounier. Vol. *Connecting the Knowledge Commons: From Projects to Sustainable Infrastructure*. Toronto, Canada: Association Francophone d'Interaction Homme-Machine (AFIHM). <https://doi.org/10.4000/proceedings.elpub.2018.22>.

Ilva, Jyrki. 2018. 'Looking for Commitment: Finnish Open Access Journals, Infrastructure and Funding'. *Insights* 31 (June): 25. <https://doi.org/10.1629/uksg.414>.

Jacobs, Jeremy W, Amarilis A Martin, Allison R Larson, Eric A Gehrie, Julie K Silver, and Garrett S Booth. 2023. 'Analysis of Industry-Related Payments Among Physician Editors of Pathology Journals'. *American Journal of Clinical Pathology* 159 (2): 172-80. <https://doi.org/10.1093/ajcp/aqac147>.

Khanna, Saurabh, Jon Ball, Juan Pablo Alperin, and John Willinsky. 2022. 'Recalibrating the Scope of Scholarly Publishing: A Modest Step in a Vast Decolonization Process'. *Quantitative Science Studies* 3 (4): 912-30. https://doi.org/10.1162/qss_a_00228.

Laakso, Mikael, Lisa Matthias, and Najko Jahn. 2021. 'Open Is Not Forever: A Study of Vanished Open Access Journals'. *Journal of the Association for Information Science and Technology* 72 (9): 1099-1112. <https://doi.org/10.1002/asi.24460>.

Laakso, Mikael, and Anna-Maija Multas. 2023. 'European Scholarly Journals from Small- and Mid-Size Publishers: Mapping Journals and Public Funding Mechanisms'. *Science and Public Policy* 50 (3): 445-56. <https://doi.org/10.1093/scipol/scac081>.

Larivière, Vincent, and Cassidy R. Sugimoto. 2018. 'Do Authors Comply When Funders Enforce Open Access to Research?' *Nature* 562 (7728): 483-86. <https://doi.org/10.1038/d41586-018-07101-w>.

Lê, Sébastien, Julie Josse, and François Husson. 2008. 'FactoMineR: An R Package for Multivariate Analysis'. *Journal of Statistical Software* 25 (March): 1-18. <https://doi.org/10.18637/jss.v025.i01>.

LeBlanc, Allana G., Joel D. Barnes, Travis J. Saunders, Mark S. Tremblay, and Jean-Philippe Chaput. 2023. 'Scientific Sinkhole: Estimating the Cost of Peer Review Based on Survey Data with Snowball Sampling'. *Research Integrity and Peer Review* 8 (1): 3. <https://doi.org/10.1186/s41073-023-00128-2>.

Lee, Janice C. L., Jennifer Watt, Diane Kelsall, and Sharon E. Straus. 2021. 'Journal Editors: How Do Their Editing Incomes Compare?' *F1000Research*. <https://doi.org/10.12688/f1000research.25620.3>.

Magee, Rachel. 2024. 'Publisher Frontiers to Cut 600 Jobs'. *Research Professional News* (blog). 11 January 2024. <https://www.researchprofessionalnews.com/rr-news-europe-infrastructure-2024-1-publisher-frontiers-to-cut-600-jobs/>.

Matthias, Lisa, Najko Jahn, and Mikael Laakso. 2019. 'The Two-Way Street of Open Access Journal Publishing: Flip It and Reverse It'. *Publications* 7 (2): 23. <https://doi.org/10.3390/publications7020023>.

Melinščak Zlodi, Iva. 2023. 'The Landscape of Scholarly Book Publishing in Croatia: Finding Pathways for Viable Open Access Models'. *Publications* 11 (1): 17. <https://doi.org/10.3390/publications11010017>.

MIT Press and Chain Bridge Group. 2021. 'The MIT Press Monograph Model: Direct to Open'. <https://direct.mit.edu/books/pages/direct-to-open-report>.

Mounier, Pierre. 2012. 'Freemium as a Sustainable Economic Model for Open Access Electronic Publishing in Humanities and Social Sciences'. Edited by Ana Baptista, Peter Linde, Niklas Lavesson, and Miguel A. Brito. *Information Services & Use* 31 (3-4): 225-33. <https://doi.org/10.3233/ISU-2012-0652>.

Penier, Izabella, Martin Paul Eve, and Tom Grady. 2020. 'COPIM – Revenue Models for Open Access Monographs 2020'. Zenodo. <https://doi.org/10.5281/zenodo.4455511>.

Petrou, Christos. 2023. 'Guest Post - Reputation and Publication Volume at MDPI and Frontiers'. *The Scholarly Kitchen*. 18 September 2023. <https://scholarlykitchen.sspnet.org/2023/09/18/guest-post-reputation-and-publication-volume-at-mdpi-and-frontiers-the-1b-question/>.

Prosser, David C. 2003. 'From Here to There: A Proposed Mechanism for Transforming Journals from Closed to Open Access'. *Learned Publishing* 16 (3): 163-66. <https://doi.org/10.1087/095315103322110923>.

SCOSS, and Jon Treadway. 2022. 'SCOSS Strategy 2022-2024'. Zenodo. <https://zenodo.org/record/5707478>.

Severin, Anna, and Joanna Chataway. 2021. 'Overburdening of Peer Reviewers: A Multi-Stakeholder Perspective on Causes and Effects'. *Learned Publishing* 34 (4): 537-46. <https://doi.org/10.1002/leap.1392>.

Sofi-Mahmudi, Ahmad, Eero Raittio, and Sergio E. Uribe. 2023. 'Transparency of COVID-19-Related Research: A Meta-Research Study'. *PLOS ONE* 18 (7): e0288406. <https://doi.org/10.1371/journal.pone.0288406>.

Taubert, Niels, Linda Sterzik, and Andre Bruns. 2024. 'Mapping the German Diamond Open Access Journal Landscape'. *Minerva*. <https://doi.org/10.1007/s11024-023-09519-7>.

Van Noorden, Richard. 2023. 'More than 10,000 Research Papers Were Retracted in 2023 – a New Record'. *Nature* 624 (7992): 479–81. <https://doi.org/10.1038/d41586-023-03974-8>.

Warne, Verity. 2016. 'Rewarding Reviewers – Sense or Sensibility? A Wiley Study Explained'. *Learned Publishing* 29 (1): 41–50. <https://doi.org/10.1002/leap.1002>.

Wojturska, Rebecca. 2022. 'Facilitating Student-Led Diamond Open Access Publishing in the Library'. *Journal of EAHIL* 18 (2): 7–10. <https://doi.org/10.32384/jeahil18516>.

Appendix

Appendix 1. Additional data from the funding practices MCA model

Figure A1. Axes inertia of the MCA model

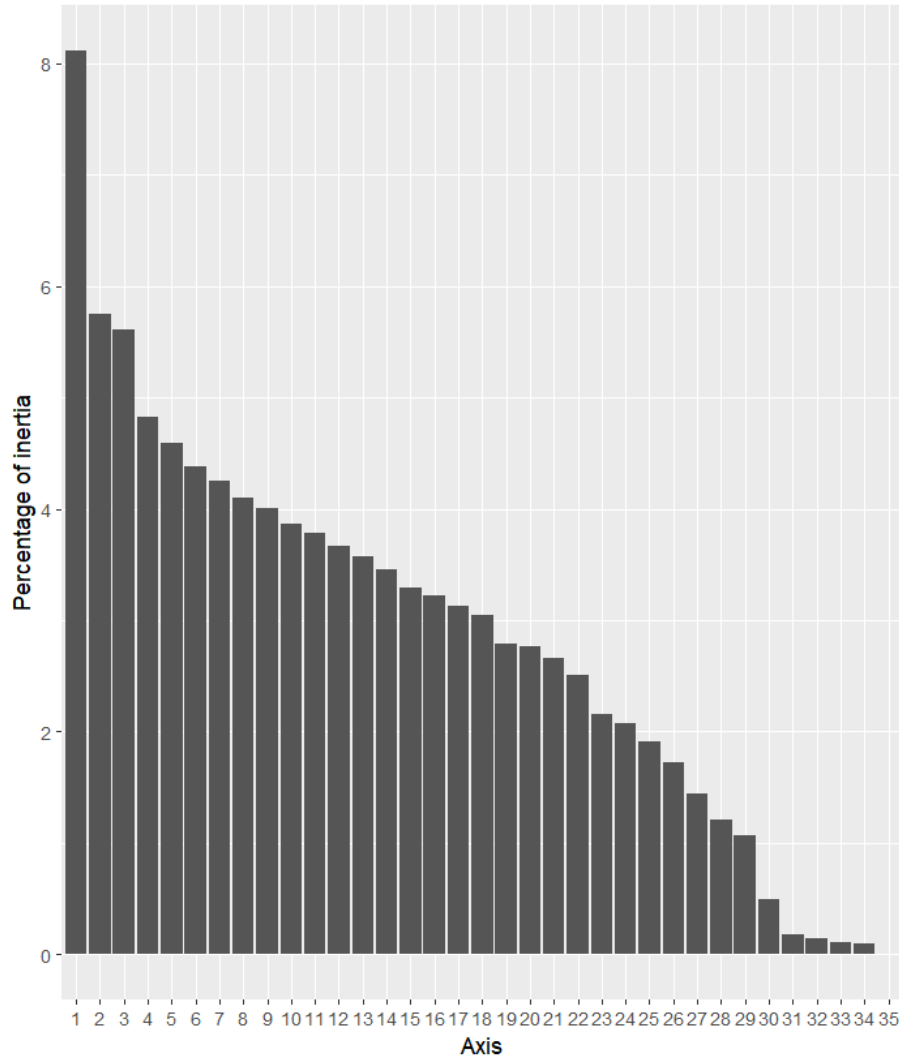


Figure A2. Variables cloud of the MCA model, axes 1 and 2

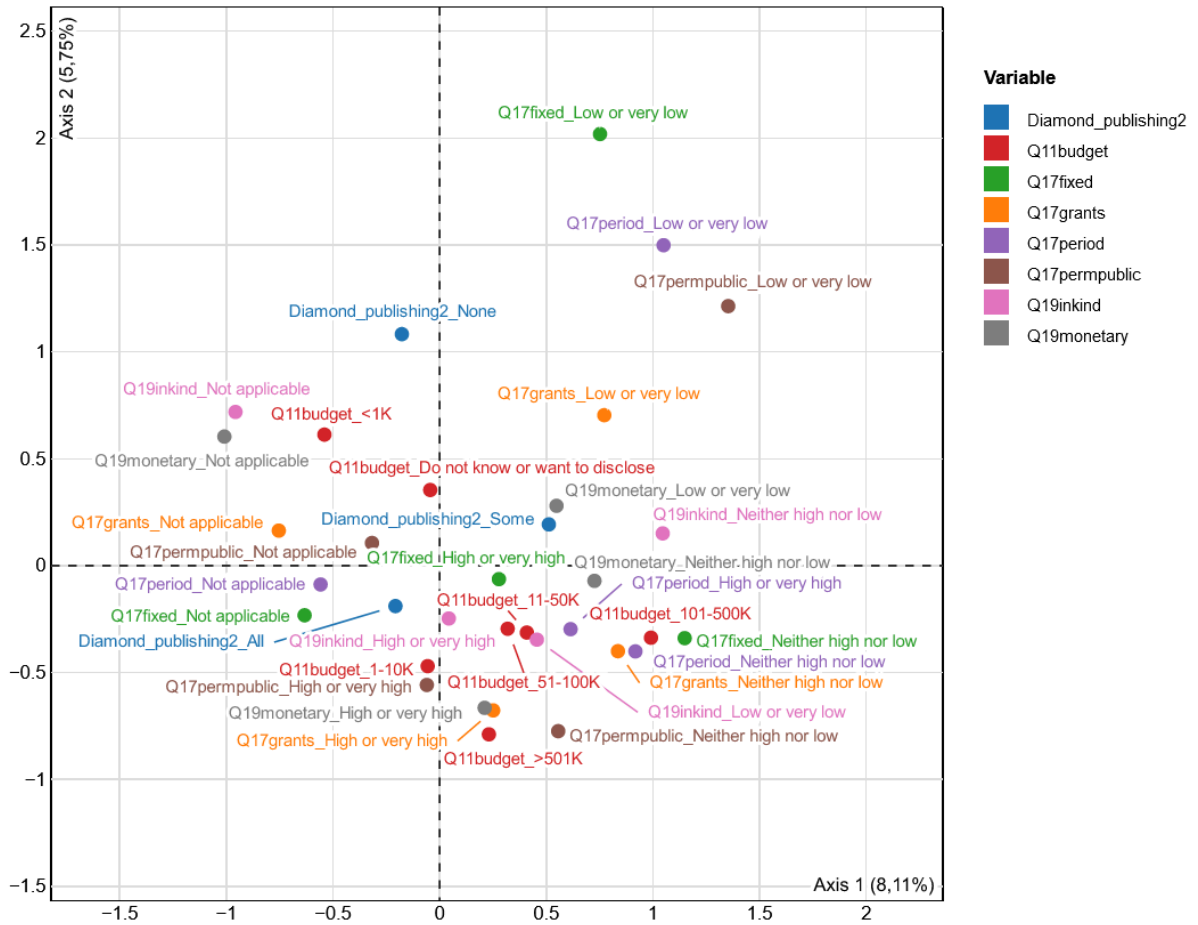


Figure A3. Variables cloud of the MCA model, axes 1 and 3

