

UKRI Open Access Review: Consultation Analysis

Final report for UKRI by CFE Research

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and Innovation



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1. Introduction and method

1.1 Background and context

As noted in the supporting consultation document (UKRI, 2020¹), open research is a key foundation for a research culture and environment that fosters excellent research and innovation. The UK government and UK Research and Innovation (UKRI) recognise open research as an important part of achieving the maximum possible impact from publicly funded research. The UK government's position, established in 2011, is for publications arising from publicly funded research to be open access. The UK has achieved world leading levels of open access (OA) through the implementation of policies of funders such as Research Councils UK (RCUK) and the Research Excellence Framework (REF). The current RCUK OA policy has been in place since 2012 and the creation of UKRI in 2018 afforded the opportunity to review and develop OA policy across the Research Councils, Innovate UK and Research England, as well as considering alignment with any future REF policy. The UKRI OA Review commenced in late 2018 with a view to delivering a new OA policy by 2021.

The UKRI Open Access Review will determine a single UKRI OA policy for research articles and will introduce a new policy for long-form research publications that acknowledge funding from UKRI and its constituent councils. UKRI is seeking to learn from progress made and challenges arising under the existing policies of its councils and from broader developments in OA, to understand how to best move forward in terms of implementing the government's ambition to transition to full and immediate OA for publicly funded research.

The Review includes a consultation exercise, seeking views and evidence on UKRI's proposed OA policy for publications acknowledging UKRI funding and related considerations (including funding and supporting infrastructure). The consultation ran during spring 2020 and the deadline for responses was extended due to disruption caused by the Covid-19 pandemic. A total of 350 responses were received.

CFE Research, with Professor Stephen Pinfield and Professor James Wilsdon of the Research on Research Institute (RoRI), were contracted by UKRI to undertake an analysis of responses to the consultation. The report is for UKRI but has been written in a way that UKRI can publish the report once the Review is complete. Therefore, the evidence given by consultees is presented anonymously. The testimony presented and the underlying data collected during the consultation will be used to guide subsequent UKRI OA Review decision-making.

1.2 Methodology

UKRI authored the consultation questionnaire and supporting documentation which explained the purpose behind the proposed open access changes (UKRI, 2020²). Data was collected via a questionnaire of 68 questions (plus questions describing the background of each consultee) hosted on Survey Monkey. The questionnaire was formatted to predominantly ask a closed question about a given OA topic followed by an open explanation of the closed answer. None of the questions were mandatory and focussed on specific details of the UKRI OA policy rather than

¹ UK Research and Innovation (2020) UKRI Open Access Review: Consultation. UKRI. Open access review microsite: <https://www.ukri.org/funding/information-for-award-holders/open-access/open-access-review/> Accessed 7th September 2020.

² *ibid.*

general views on the principles of OA since UKRI are committed to ensuring access to all publicly funded research. The questionnaire comprised four main sections:

- Background information about the viewpoint and professional capacity of the individual responding, and the organisation they represented if relevant
- Section A: Views on OA proposals for research articles
- Section B: Views on OA proposals for monographs, book chapters and edited collections (these are referred to as "long-form outputs" in the report for the sake of brevity)
- Sections C through E covering issues of compliance, policy implications, potential supporting actions and any further comments

A note on the profile of consultees

Annex A shows the full profile data for all consultees. The interrelationship between two aspects of consultees' profiles are important for the analysis: the capacity in which the consultee responded³; and the disciplines they represent⁴.

Tables 1, 2 and 3 (overleaf) show the distribution of consultees based on these two variables. Table 1 shows more than four in five (84%) consultees responded from six capacities ranging from those representing higher education institutions (HEIs) who comprise more than a quarter (27%) of all, down to learned societies or academies with an in-house publisher, representing one in twenty (5%) of all consultees. All quantitative sub-analyses within the report consider these six sub-groups where base-sizes allow⁵.

Table 2 shows that many consultees selected more than one option when asked the disciplinary area(s) they with which they associated themselves. Most consultees chose at least two option. Three in five (59%) chose the interdisciplinary option, or when all selections were taken into account, combined Science, Technology, Engineering & Maths (STEM) and Arts, Humanities and Social Science (AHSS) options. Nearly a quarter (23%) of all consultees chose STEM / STM (Science, Technology & Medicine) only options and one in six (17%) AHSS only options.

Table 3 compares the main six capacities by which a response was made with an aggregated disciplinary category. This shows some large variations in the type of disciplinary response by the capacity in which a consultee responded. In particular, nearly all representatives of HEIs offered an interdisciplinary response, as did most of those representing libraries or research management. STEM / STM only disciplines were strongly represented amongst researchers and AHSS disciplines amongst learned societies or academies which outsource publishing. This relationship is important in the decisions about how to report the findings. Firstly, the number of STM / STEM only and AHSS only responses in the consultation is small. Secondly, the distribution of these responses is not evenly distributed across consultee type. The tables within the data appendix include cross breaks for both capacity of response and discipline. However, an analysis of responses shows that most of the differences in views were driven by the capacity in which the consultee responded. For this reason, the main quantitative analysis within this report considers differences by capacity. Disciplinary differences are frequently referenced in qualitative analysis.

³ What best describes the capacity in which you, your organisation or your group are responding? Options in Table 1 show all recorded / back-coded data.

⁴ VII. Which disciplinary area(s) would you associate you, your organisation or your group with? Please select all that apply: a. Arts and humanities; b. Medicine, health and life sciences; c. Physical sciences, engineering and mathematics; d. Social sciences; e. Interdisciplinary research. Note this question was a multi-code i.e. consultees could choose more than one option.

⁵ A minimum base size of 15 in a sub-group is used within this report.

Table 1: Capacity or role in which response was made by the consultee

Capacity in which response made by consultee	Frequency	Percent
HEI	96	27%
Learned society or academy (Outsource publishing)	57	16%
Researcher	56	16%
Publisher	37	11%
Library or research management	31	9%
Learned society or academy (In-house publisher)	19	5%
Other	11	3%
Providers of scholarly communication infrastructure or services	9	3%
Research Institutes / Research Performing Organisation	8	2%
Representative bodies	6	2%
Business	5	1%
Other research	5	1%
Learned society or academy which does not publish	3	1%
Funder	3	1%
Public	2	1%
Other user or producer	2	1%
Total	350	100%

Source: Consultee responses, March to June 2020

Table 2: Discipline represented by consultee (multi-code response)

Academic disciplines	Frequency	Percent of all
a. Arts and humanities	184	53%
b. Medicine, health and life sciences	204	59%
c. Physical sciences, engineering and mathematics	166	48%
d. Social sciences	183	53%
e. Interdisciplinary research	185	53%
f. Not applicable	18	5%
Known total	332	95%

Source: Consultee responses, March to June 2020

Table 3: Relationship between capacity of response and academic discipline

Capacity in which response made by consultee	n	Inter-disciplinary	STEM / STM only	AHSS only
HEI	92	92%	3%	4%
Learned society or academy (Outsource publishing)	57	37%	21%	42%
Researcher	56	29%	52%	20%
Publisher	36	64%	17%	19%
Library or research management	27	70%	19%	11%
Learned society or academy (In-house publisher)	19	47%	37%	16%
Total	332	59%	23%	17%

Source: Consultee responses, March to June 2020

Known issues interpreting consultation responses

It is often challenging to generalise views given in consultations to represent the whole population of interest for a number of reasons:

- Anyone or any organisation with an interest in a topic can respond, so there is a wide variation in respondent type. For example, some responses were received from researchers providing their individual view; other responses were from representatives of organisations expressing a collective view. The unit of response therefore differs.
- Groups of individuals or organisations can also create collective responses to questions. In this consultation, a number of cut-and-paste responses were identified in several questions.
- Because questions were not mandatory, nor relevant to every consultee, the coverage of responses per section and per each question is also lower than the total number of consultation questionnaires received. A total of 350 responses were received and around 10% of these (33 consultees) completed less than a third of all questions. Coverage also differed between sections. For example, fewer consultees provided answers to Section B on long-form outputs (typically around two-thirds (c230) of all consultees) compared to Section A on articles (around nine in ten (c310) consultees).

Because of these issues, it is not possible to correct for bias through statistical measures such as weighting because the population itself cannot be adequately defined. All interpretation of the results should be read as a reflection only of those who responded and should not be generalised to the wider population.

A general observation for all responses is the tendency for consultees to make qualifying statements when agreeing with a proposition: an "I agree, however..." type of response. There was less of a tendency to qualify in the other direction (I disagree, however...). It is therefore important to consider both the quantitative and qualitative responses together to get a sense of support or opposition to a proposition from consultees.

A summary of analytical methods

Quantitative analysis of closed questions

Noting the caveats listed above, statistical analysis was undertaken on closed responses to understand differences in responses amongst those responding. This analysis took three forms:

- Standard bivariate analysis of the response to each question. Although a number of personal and organisational characteristics of consultees were collected, the main variable which could be used to compare response was the type of consultee (see Appendix 2 for more details). As the data cannot be generalised to the wider population, a decision was made to include sub-group analysis for any type of consultee with 15 observations or above⁶. This means the report's sub analysis includes six consultee types for articles: representatives of HEIs; libraries or research management; publishers; learned societies that outsource publishing; learned societies with an in-house publishing arm; and researchers. For long-form outputs, the sub-analysis covers the same groups except learned societies with an in-house publishing arm.
- Simple correlation between key consultation questions to assess any relationships between variables. This was used in comparative analysis and helped narrow down the variables to include in further regression analyses.
- Logit regression to identify which consultation questions (if any) acted as key markers of views for four groupings of respondents: HEIs, researchers, publishers and learned societies / academies. This regression compared the responses given by the target group to all others and identified those questions in which the odds that those consultees would respond in a certain way were significantly different compared to all others.

In most cases, analysis of closed questions considers only those that responded to the question rather than the proportion of all consultees because of the incomplete coverage in response identified earlier. However, in a few instances, percentages are based on the total number of consultees. For example, it was sometimes useful in the analysis to understand what proportion of consultees answered a specific interest to gauge the general level of interest on a topic.

Qualitative coding and analysis

Most of the time assigned to this study was used to code, then analyse open responses. An initial code book was devised by UKRI from which revisions were made and agreed over time. All open responses were imported into NVivo 12, a qualitative data analysis software package that allows for ease of organising data by theme. The codebook was refined in two stages. A random subset of 60 consultation responses was used to develop UKRI's initial codebook, which was then passed back to UKRI for review and sign-off. Interim, descriptive findings were also reported at this point. All other responses were then coded, with some adaptations and additions to the code book over that time.

The code book was hierarchically structured. High level themes relating to sections (e.g. Compliance) formed the primary node, and themes within this section (e.g. Non-compliance, Sanctions, Challenges) formed the secondary nodes. Responses were initially coded to this deductive frame, and inductive secondary or tertiary nodes (e.g., reasons for or against sanctions) were added as they emerged. In total, the final code frame included over 600 nodes.

Ideally, consultees would directly relate each open response they give to the specific question posed. However, it is not uncommon for individuals to reiterate the same key points, or variations thereof, through consultation responses. The main consideration for analysis is that data specific

⁶ Typically, a minimum cell size of 50 would be required for such analyses

to a given question may lie anywhere within a consultee's submission. The value of the code book is its ability to consider a wider response across the whole submission. For example, views on cost issues (Section 3.6) were not confined to specific questions but featured throughout consultees' responses. All quotes are presented verbatim.

2. Executive Summary: Insights and reflections

In this section, we summarise the balance of agreement and disagreement with core elements of UKRI's proposed OA policy, and highlight aspects of consensus and dissensus among the consultation responses.

Responses to the consultation reflect a wide range of views on open access in general, and on UKRI's policies in particular. Where there is agreement on the intentions of certain policies, there may be a divergence of views on how to achieve these. Many of these differences are not unexpected and reflect the established views of different disciplines and actors within the scholarly communication ecosystem.

The responses do also signal significant areas of broad agreement, from which it is possible to discern ways of advancing the goal of extending open access across the outputs of UKRI-funded research, while securing the support of a majority – if not all – stakeholders in the UK research system.

2.1 Terminology and definitions of in-scope outputs

2.1.1 Peer-reviewed research articles

The vast majority (82%) of respondents agreed that UKRI's definition of in-scope outputs under its proposed OA policy is clear. The policy includes within its scope peer-reviewed research articles, which acknowledge full or partial funding from UKRI, including reviews and conference papers, that are accepted for final publication in journals, in conference proceedings with an International Standard Serial Number (ISSN) and on OA publishing platforms.

Some responses requested further clarity and detail around specific types of articles, such as research protocols and method papers, case studies, letters, and opinion pieces. Further clarity on the definitions of 'article', 'peer review', 'reviews', 'conference proceedings' and 'OA publishing platform' was requested by a handful of respondents – highlighting the need for definitional precision and consistency wherever possible. Similarly, some consultees sought greater clarity on how to treat articles with multiple funding sources, asking whether a threshold or minimum proportion of UKRI funding should be required to be in-scope.

2.1.2 Monographs, book chapters and edited collections

Any extension of UKRI's open access policy to monographs would be a new development, so it is not surprising that there was greater caution and uncertainty in relation to these proposals. Outputs within the scope of the proposed policy include UKRI-funded academic monographs, book chapters and edited collections. Those out of scope include trade books, scholarly editions, exhibition catalogues, text books, and all types of fictional works and creative writing. Further exemptions are also proposed for academic monographs, book chapters or edited collections which require significant reuse of third-party materials, or where the only suitable publisher does not have an OA programme.

While 53% of respondents agreed that the scope of the policy was clear, a significant (37%) minority disagreed, concentrated among publishers and learned societies. Consultees of all kinds also sought further clarity on the definition of 'trade books' and how to deal with outputs derived from multiple sources of funding. A majority welcomed proposed exemptions for fields where no OA publisher exists, which was seen as important to safeguard academic freedom and to preserve diversity in the academic publishing sector. With respect to UKRI-funded doctoral research, there

was marked uncertainty among consultees over the envisaged time-frame for in-scope outputs following completion of a thesis (which might follow some years later), and where the responsibility for monitoring, compliance and funding of subsequent outputs should reside (given likely career mobility at this stage).

2.2 OA routes and deposit requirements

2.2.1 Peer-reviewed research articles

UKRI proposes that in-scope research articles will be considered compliant with its OA policy if the final published version of the paper is made freely and immediately available online via a journal or OA publishing platform (gold route), or the version of record or peer-reviewed author's accepted manuscript is made freely and immediately available online at the time of publication in an institutional or subject repository, with no embargo period permitted (green route). Two thirds of respondents (65%) felt that these were the appropriate routes, with a minority (23%) suggesting that other venues such as preprint servers (e.g. BioRxiv) should also be considered.

A potential requirement for in-scope research articles to be deposited in a repository, even where the version of record may be published elsewhere, elicited more divergent responses, with 45% of consultees in favour, and 37% opposed. Immediate (non-embargoed) deposit under green OA was particularly controversial, with significant opposition from publishers and learned societies.

2.2.2 Monographs, book chapters and edited collections

With respect to monographs and edited collections, there was some support for a zero-embargo period among researchers and a smaller number of HEIs. Around one third of overall respondents agreed with the suggested 12 month embargo period, with a further third preferring longer. Publishers and learned societies consistently argued for an embargo period longer than 12 months, on the basis that anything less would damage the financial viability of long-form outputs. Others pointed to evidence suggesting that an OA version of a book can lead to increased print sales.

There was broad support for the option of self-archiving of long-form outputs as a route to meeting UKRI's policy requirements (with 63% of responses in favour). Those who felt self-archiving should meet the requirements were less likely to agree to sanctions for non-compliance. Those who opposed self-archiving were primarily concerned with the potentially substandard quality of author accepted manuscript (AAM), or the impact on publishing revenue, even with a 12-month embargo. Some also expressed a concern that self-archiving might damage the viability of gold OA routes, at a time when the market for OA long-form outputs remains quite immature.

2.3 Licensing requirements, copyright and rights retention

2.3.1 Peer-reviewed research articles

Where policy compliance is achieved through deposit in a repository, views were divided on whether a CC BY licence (or Open Government Licence where needed) should be required, with 43% in favour of this proposition, and 37% opposed. Opposition was concentrated among publishers and learned societies, and support among libraries, HEIs and researchers. Those supporting the proposal to use CC BY noted that it would support the full reuse aim of OA policy, and would more readily align with Plan S. Those opposing the proposal argued it would pose particularly challenges for arts, humanities and social sciences, given their potential reliance on third party (non CC BY) content and concerns about potential for research to be misrepresented out of context. Others objected on economic grounds (such as impacting subscription income), and expressed a preference for CC BY-ND or CC BY-NC as an alternative licensing model.

On the question of whether UKRI's OA policy should require copyright and/or rights retention for in-scope research articles, 33% of respondents said that the author or their institution should retain copyright and specific reuse rights. Twenty-three per cent said that authors or their institutions should retain copyright and not exclusively transfer this to a publisher. Twenty-two per cent said that UKRI should not have any requirement for copyright or rights retention.

Amongst those who supported the retention of copyright and re-use rights, many suggested that this option provides the greatest flexibility for future use of outputs. Those who supported retaining copyright argued that it gives authors more control. Those supporting no such requirement mostly argued that this would be unnecessary or irrelevant, given that under gold OA authors retain copyright, or if an article is published CC BY, then it is irrelevant who holds the copyright, as it confers no benefits.

2.3.2 Monographs, book chapters and edited collections

Compared to journal articles, fewer consultees answered questions relating to licensing and third-party rights for long form outputs. Overall, the arguments made were similar. A specific proposal to make CC BY-ND permissible (as well as CC BY) for longer form outputs enjoyed the support of around half (53%) of consultees. A quarter (26%) disagreed or strongly disagreed with this proposition, especially among publishers.

A common concern expressed about the use CC BY-ND was the potential it creates for misuse of published research by unethical academics or predatory publishers. Some publishers suggested the lack of NC could allow another publisher to repackaging text for resale, depriving authors and the original publisher of income.

As regards possible exceptions for in-scope long-form publications that use third-party material, 70% agreed and only 9% disagreed with this suggestion. As to whether redaction is suitable for images unavailable for re-use, 40% agreed and 34% disagreed.

2.4 Technical standards requirements

2.4.1 Peer-reviewed research articles

On questions relating to technical standards for research articles, most consultees agreed with all the standards proposed, though there were weaker levels of agreement with some propositions from publishers and learned societies. For example, publishers showed weaker net agreement with the statements that 'article level metadata must be used according to a defined application profile that supports UKRI's proposed OA policy' and that 'unique PIDs for research management information must be used and must include the use of ORCID to identify all authors and contributors.'

There was strong support for digital object identifiers (DOIs). The importance of the 'persistent' element of PIDs was broadly endorsed as a way to ensure access to articles is maintained. A few responses noted the role of additional tracing methods for other non-article entities such as the Research Organization Registry (ROR) and GrantIDs for financing. Guidelines such as Crossref and OpenAIRE were also endorsed regularly, while some mentioned other platforms and services, such as Scopus, OJS, Datacite and Sherpa RoMEO.

There was widespread agreement (62%) that article-level metadata should follow a defined profile that aligns with UKRI's OA policy, with respondents citing the benefits of discoverability and interoperability. Standards and open standards for metadata also received support, including CC0 (Creative Commons Zero), and initiatives such as CrossRef were referenced positively.

There was strong agreement (+68%) with the proposal that machine-readable information on OA status and licence must be embedded in articles in a standard non-proprietary format, with an

assumption that responsibility for this would fall to publishers. Similarly, there were high levels of support for the idea that long-term preservation must be supported via a robust preservation programme such as CLOCKSS or Portico (+71%). A few respondents felt that enhanced institutional infrastructure was required to support the use of preservation services. There was also broad support – albeit slightly weaker – for the standards of the Initiative for Open Citations (I4OC), and for the use of ORCID identifiers for researchers. Views were more divided on whether the adoption of PIDs (including ORCID) should be mandatory or optional, with the burden of administration the biggest argument for the optional model, particularly for multi-author articles.

2.4.2 Monographs, book chapters and edited collections

Compared to articles, the consultation sought less input on the technical specifications for long-form outputs. In general, consultees felt the general principles should be similar to those used for articles. Adoption of machine-readable and persistent identifiers was seen as important, including for individual book chapters. Metadata standards, including DOIs, ORCIDs, CC licensing metadata and funding identifiers, were also highlighted as important.

Consultees recognised that technical standards are less mature for long-form outputs, and the main point of discussion was the technical challenges of assigning metadata. A number of responses referenced the OAPEN standards for academic books, and the Directory of Open Access Books (DOAB), as valuable tools. Other challenges were the same as those discussed for articles, such as incomplete use or resistance to persistent identifiers like ORCIDs, and the potential costs associated with adapting existing systems to new metadata requirements.

2.5 Timing of implementation

2.5.1 Peer-reviewed research articles

Most respondents either agreed that UKRI's proposed OA policy should apply to in-scope articles accepted for final publication on or after 1 January 2022 in journals, in conference proceedings and on OA publishing platforms (41%) or later than this date (39%). Only 9% said it should start earlier than 1 January 2022. Support for a later date was highest among learned societies with in-house publishing (76%), those that outsource publishing (71%) and publishers (47%).

Those who supported a January 2022 (or earlier) implementation date argued that the proposed implementation date is best aligned with other policies (e.g. Wellcome and Plan S) and that any delay beyond 2022 would cause additional confusion. Some consultees, mostly representing HEIs, suggested that alignment of implementation with the REF-after-REF 2021 would be easier to manage, and would help to reduce confusion and complexity.

Consultees across all groups suggested that additional transition time may be needed to adapt to evolving OA requirements as a result of the Covid-19 pandemic. Others felt that more preparation time was needed in particular disciplines where publications directly acknowledging a grant may be accepted a number of years after funding ends. Some felt that in AHSS, more time is needed to allow more journals to become compliant to not restrict authors to a narrow choice of venues. Many respondents, particularly among publishers and learned societies, emphasises that the full time span of the publication process should be considered when determining the implementation date. Some said that they have already accepted articles for publication in 2022, and so were concerned that a 1 January 2022 date would be too soon for journals and publishers to put in place new policies, contracts and publishing infrastructure, especially if the final detail of UKRI policy detail is not announced until late 2020.

2.5.2 Monographs, book chapters and edited collections

As regards the timing of implementation of UKRI's OA policy for monographs, book chapters and edited collections, almost half (47%) of those responding agreed with UKRI's proposal that the

policy should apply to in-scope monographs, book chapters and edited collections published on or after 1 January 2024; 30% said the policy should apply later, and 7% said earlier. As with articles, representatives of libraries largely favoured the default date of 1 January 2024, while publishers and learned societies that outsource publishing favoured a later date.

Those that favoured the proposed implementation date of 1st January 2024 were mostly from HEIs and libraries. Some argued that, given the complexity of OA publishing for long-form outputs, any earlier than 2024 would be too soon for some publishers or HEIs. Others argued that any later than 2024 would be too far away to provide the necessary impetus to the sector to take action.

Those that favoured a later date often advocated a phased implementation, or a more voluntary approach, to allow for testing and exploration of new publishing models. Some said that greater detail on funding mechanisms is required before a final decision on implementation dates can be made.

2.5.3 Uncertainties of Covid-19

As regards timing, many consultees referenced the impacts of the Covid-19 pandemic, and some felt that proposed timelines should be reviewed in light of the impact of the pandemic. Consultees from all groups highlighted that immediate and longer-term impacts of the pandemic remain uncertain. HEI responses also noted the pandemic-related budgetary pressures across the sector, which may impact their ability to make a full transition to OA.

2.6 Public value, costs and funding

2.6.1 Peer-reviewed research articles

Cost-related questions surfaced the sharpest divides between those with a commercial publishing interest (publishers and learned societies) and those without. For journal articles, 78% of respondents anticipated cost implications for them or their organisation, with increased Article Processing Charge (APC) costs, workload costs, loss of income and disproportionate impact on smaller organisations the most commonly-cited concerns. Only 11% felt there would be financial benefits from further moves towards OA.

43% respondents cited evidence of recent cost increases, including APCs increasing above the rate of inflation. Others highlighted the continued practice of ‘double dipping’, where publishers charge both subscription fees and APCs, although it was recognised that some publishers now attempt to limit this. Some felt that APC costs would limit the number of articles that could be published via gold OA, particularly for smaller and less research-intensive organisations. Some HEI and library consultees said that APCs and associated administrative costs already exceeded the value of UKRI block grants, or will do so in the near future.

For learned societies that publish journals, the biggest concern was that OA would impact their revenue, either with reduced subscriptions or nullifying journal access that they currently offer as a benefit of membership fees. They were concerned that their commercial viability and support of their academic community would be threatened. Other publishers argued that OA publishing with no embargo period would make their business model unsustainable. Green OA, without any APCs, was seen by some as an even greater threat. A sizeable majority (75%) of consultees said publishers could do more to improve the transparency of publication charges (this included 73% of the publishers responding to that question).

Hybrid open access is a model where subscription-based journals allow authors to make individual articles gold OA on payment of APC. UKRI asked whether it should stipulate that its OA funding should only be used in fully OA journals and publishing platforms, and not in hybrid journals, unless they are part of a transformative agreement. Forty-four per cent of consultees responded to this question by saying that UKRI funding should be permitted to support OA publication in hybrid

journals, and a further 32% agreed but only where the hybrid journal was part of a transformative agreement. Only 12% argued against any support for publication in hybrid journals. Those in favour cited concerns about restricting researcher choice over where to publish, and also identified a risk of creating a two-tier split between journals, with ‘top tier’ hybrid journals becoming inaccessible to UK researchers, if they were deemed non-compliant. Those who preferred to restrict UKRI OA funds to hybrid journals party to a transformative agreement argued that this option aligns with Plan S, under which hybrid journals may be a necessary step in the transition towards full OA.

Another cost-related question asked whether UKRI OA funds should be permitted to support the support costs for institutional repositories. More than half (54%) of consultees agreed that this should be permitted, while 14% disagreed and 14% were neutral. Those in favour argued that maintaining repository infrastructure can be costly, and supporting these costs would reinforce the importance of the green OA route. Learned societies were least likely to support using UKRI funds to support institutional repositories. Some critics of this proposal argued that it would be better to develop a national repository, or repositories for different disciplines.

Most respondents argued against any other additional restrictions on how UKRI funding could be used, citing institutional and individual freedom as the key reasons. When asked if there are changes or alternatives to the present UKRI funding mechanisms that might help to support a diversity of OA models, around half (48%) of consultees said there were and offered a wide variety of suggestions. Publishers (69%) and HEIs (65%) were especially likely to propose alternatives. For example, the Open Library of Humanities was frequently cited by consultees as one successful model that could support researchers in AHSS who may not have access to funding for APC payments. Other suggested models included the Wellcome Trust’s Open Research platform, Open Book Publishers, SciPost and the Language Science Press. Some went further by suggesting that UKRI should establish its own platform or directly invest in existing platforms. A minority of responses called for greater support for Read & Publish deals. More stressed the ongoing need for consultation and planning to ensure a diverse set of models are available, particularly for arts and humanities, and to remain open to innovation, building in time for testing and learning.

2.6.2 Monographs, book chapters and edited collections

Many of the same financial issues were highlighted with respect to long-form outputs, although there were also a few specific considerations, including the extra workload to administer and comply, and the extended duration of the writing, editing and publishing process. Respondents also suggested that UKRI should provide clear guidance on action/s to take if an author moves institution before they have published their book. Several responses highlighted that OA monograph publishing was still a relatively untested field, such that UKRI should proceed cautiously and take time to consider options. Suggestions for funding for open access books included: including OA costs within grant applications; ring-fencing some block funding for long-form outputs; and publishing fees only to be paid by UKRI once contracts are agreed (as per current Wellcome policy).

There was also broad support for UKRI encouraging innovative outlets. Opportunities presented by the outcomes of the Community-led Open Publication Infrastructure for Monographs (COPIM) project was also mentioned. Some respondents also suggested that financial support from UKRI should be multi-year to provide stability and allow for continuity of planning.

2.7 OA infrastructure

2.7.1 Peer-reviewed research articles

When asked if there were any existing or new infrastructure services that UKRI should fund the maintenance or development of, in support of its OA policy for research articles, over half (55%)

of consultees said there was – with HEIs (85%) and libraries (79%) particularly likely to propose options. Many repeated points here about the need for UKRI to support existing institutional or subject repositories. Suggestions mostly related to existing infrastructure rather than new platforms or systems, including Jisc infrastructure, Sherpa services, OpenDOAR, CORE and the Publications Router. Other existing services which might be considered for funding include DOAJ, CrossREF, ORCID, SCOSS, OpenAire, and Unpaywall. And some also highlighted the value of preprint servers such as BioRxiv or MedRxiv in this context.

The option of a national repository, overseen by UKRI, was mentioned in several places in the consultation. Views on this were generally split along the same lines as support for institutional repositories; publishers and learned societies were much more likely to argue against a national repository; and HEIs and libraries more likely to argue in favour. Researchers offered more mixed views. Those in favour felt that a national repository would aid access and discoverability, and centralising efforts into one system might be more streamlined and cost-efficient. For publishers and learned societies, a national repository was seen as an unnecessary duplication of effort. Publishers in particular pointed towards the extra cost and work that would have to go into duplicating well-established and widely-used infrastructure.

2.7.2 Monographs, book chapters and edited collections

For long-form outputs, 63% of respondents felt UKRI could do more to support infrastructure (with the highest levels among HEIs at 82% and publishers at 76%). Several referred to the need for support for BPCs, but other initiatives cited as meriting support include DOAB and Jisc services, particularly the Publications Router and SHERPA. Other suggestions for support included OAPEN, SCOSS, Unpaywall and COPI. Several felt that resources would be better spent working with existing providers such as Jisc to enhance the accessibility, usability and readability of digital long-form outputs.

There was support from HEI and some library respondents for extending a national repository beyond research articles to other long-form outputs. Some suggested developing a publishing platform or a UK-wide shared press, which would be particularly useful for smaller institutions with no university press.

2.8 Preprints

The consultation also considered the changing role of preprints in the wider publishing landscape, and sought views on requiring OA for preprints during public emergencies. The main concern over preprints among consultees from all categories was the lack of peer review before publication, which increases the potential for errors or false information. Preprints can also be misunderstood or misinterpreted, and may not be sufficiently robust to inform practice.

Other concerns were expressed over definitions, technical requirements, difficult licensing conditions with some publishers, and problems of enforcement. Some felt that preprints lay beyond the remit of UKRI, and would add to the burden of compliance and reporting.

Others argued that mandating preprints would need investment, and this would not be a good use of public funds when open sharing already happens regardless of UKRI policy. Some worried that any funds spent on this would be diverted from gold OA or other priorities. There were marked differences in the responses of those in STEM and AHSS disciplines, with the former more accustomed to preprints and their requirements.

The strengths and weaknesses of preprints have been highly visible during the Covid-19 pandemic. Sixty per cent of consultees felt that UKRI should require preprints to be made OA where there is a significant benefit with regard to public emergencies. Several suggested that UKRI policy should align with Wellcome's policy, which states that funded research should publish

in preprint form when there is a significant public health benefit to findings being shared widely and rapidly.

Other suggestions for UKRI's contribution to preprints included support for a national preprint repository or platform, or support for institutional repositories and existing preprint servers, with the aim of ensuring longer-term sustainability. Clarity from UKRI over which preprint servers would be compliant would also be needed, alongside clarity over other requirements.

2.9 Monitoring compliance

Discussions of compliance featured throughout the consultation, and UKRI was keen to invite views on how to improve the monitoring and enforcement of its OA policies. Invited to identify barriers to compliance, consultees highlighted lack of infrastructure, operational challenges, administrative burden, and the potential for additional costs. Some consultees – mostly from HEIs – queried who will be responsible for monitoring and ensuring compliance with the OA policy, particularly for multi-authored articles, conference proceedings, part-UKRI funded research or international collaborations.

Almost half (45%) of consultees felt that the manual reporting process currently used for UKRI OA block grants could be improved. This proportion rose to two-thirds (65%) of consultees from HEIs. Consultees said that the current reporting process is an administrative burden, and requires duplicate information to be drawn from multiple sources. As a result, some consultees expressed concerns over the accuracy of data currently submitted. A majority supported a move to more automated and centralised systems, perhaps via enhancement of the current Jisc OA monitor, or the creation of a new centralised dashboard, hub or switchboard. This could operate as a real-time online system with automated deposit mechanisms for articles and metadata.

With respect to possible sanctions for non-compliance with UKRI's proposed OA policy, just 29% of consultees said sanctions should be applied (largely representatives of HEIs or libraries. Publishers and learned societies were far less likely to express an opinion on this issue. Supporters of sanctions felt they would help to embed the policy within the sector and demonstrate the seriousness of UKRI's intentions. Those opposing sanctions argued that guidance, support and warnings should first be applied to allow researchers and institutions to change processes or behaviour, with sanctions applied as a last resort, or when faced with repeated non-compliance.

2.10 Policy implications and supporting actions

UKRI also sought views on the wider implications of its proposed policy for the research and innovation community, and any supporting actions that it might need to take to support implementation and OA more broadly.

Among all groups, the perceived benefits of the OA policy centred on increased and improved access to research, with particular value for independent researchers or students, businesses or entrepreneurs that use research, and the wider public. HEI and library respondents highlighted how increased access to the research produced by their staff will increase their institutional visibility and impacts, and has the potential in the longer-term to save money by reducing subscriptions and library costs.

Consultees also mentioned that improved OA is likely to improve communication of research outcomes, and drive future collaboration, innovation and translation into practice. Some suggested that the policy would also help to drive changes in researcher, institutional and publisher behaviour, and incentivize more open and transparent practices.

With respect to potential drawbacks of the policy, (82%) of those who responded to the question felt they could foresee some disadvantages or inequalities. These were largely focused on

negative financial implications for some learned societies and publishers – reiterating concerns raised elsewhere.

Some feared inequalities arising at organizational level: between small and large HEIs, or small or large publishers. Others expressed concern that researchers (particularly in AHSS disciplines) may be restricted in their academic freedom of choice over where they publish their research if they are unable to meet publication charges, or if their publication venue of choice does not offer a compliant route to publication. Some of these drew attention to the possibility of a “two-tier system” developing between funded and non-funded researchers.

Potential problems for early career researchers (ECRs) were highlighted by many respondents. Others warned of inequalities and biases associated with gender, and for BAME and/or part-time researchers. Some suggested a formal equality impact assessment should be undertaken to investigate areas of concern and develop responses. Other respondents argued that greater openness and transparency could help to alleviate inequalities.

UKRI posed a specific question about the implications of their OA policy for research systems in Low and Middle Income Countries (LMICs). Responses highlighted that LMIC researchers will be both positively and negatively impacted by the proposed policy. Almost all of those commenting argued that the academic community in LMICs will be positively impacted, as readers and users of research. But in their roles as producers of research, consultees felt that LMIC researchers would be negatively impacted, and might be prevented from publishing in UK-based venues, because of a lack of funding. Proposed routes around this problem might include waivers for LMIC researchers (particularly for long-form outputs), maintaining green OA routes, and supporting publications in local languages. Some highlighted existing initiatives to support LMIC researchers and institutions, such as Research4Life.

2.11 Considerations specific to the Research Excellence Framework (REF)

The consultation included eight questions on aspects of alignment between UKRI OA policy and the REF-after-REF 2021 (with REF policy jointly owned and governed by Research England, as part of UKRI, and by the other national funding bodies). The headline message here was that the scope of the REF is larger than that covered by UKRI funded research, which represents a small proportion of all REF-eligible outputs. As a result, consultees felt that the REF-after-REF 2021 OA policy should align with UKRI OA policy in principle, but it should be less stringent than the UKRI position, and offer more exceptions in light of funding constraints and other factors. Flexibility was considered especially important in relation to long-form outputs where the transition to OA is further behind that of articles, the costs are likely to be significantly greater, and more time is needed to develop and implement the required infrastructure.

Several consultees supported closer alignment between UKRI OA policy definitions and REF definitions, to minimise confusion around compliance, reduce unnecessary administration costs. But consultees also noted that current REF policy has a broader definition of ‘research article’ such that applying the UKRI OA policy to the REF in a standardised way would be problematic for authors who do not have UKRI funding, and those researchers who are independent, early-career, or recently-retired.

A small number of consultees noted that the UKRI policy as proposed does not allow for future formats that may emerge, placing the policy at risk of becoming quickly out-dated and outpaced by advances and innovations in scholarly communication. Some consultees suggested that flexibility in the policy will need to be retained to accommodate changes in the future research and publishing landscape for the REF-after-REF 2021 cycle, to keep pace with likely developments in the scholarly communications landscape over the next decade.

3. Review of responses

3.1 In-scope outputs and exceptions

Consultees from all groups were more likely to agree than disagree that it is clear what outputs are in scope of UKRI's proposed policy for both research articles and monographs, book chapters and edited collections. However, open responses from all groups indicated that some further clarity and detail is needed across all formats. The questions or issues raised by those commenting did not differ by group, suggesting that all would benefit from further clarification. In particular, consultees raised questions about definitions of key terminology and phrasing, and the application of in-scope and out-of-scope criteria or exceptions.

3.1.1. Research articles

Within the scope of UKRI's proposed OA policy are peer-reviewed research articles, including reviews and conference papers, that are accepted for final publication in journals, in conference proceedings with an International Standard Serial Number (ISSN) and on OA publishing platforms, and which acknowledge full or partial funding from UKRI and its constituent councils (consultation document, p12). Respondents were asked whether this is clear, and for explanations of anything that is unclear.

Consultees from all groups were more likely to agree than disagree that it is clear what outputs are in scope of UKRI's proposed policy for both research articles and monographs, book chapters and edited collections. However, open responses from all groups indicated that some further clarity and detail is needed across all formats. The questions or issues raised by those commenting did not differ by group, suggesting that all would benefit from further clarification. In particular, consultees raised questions about definitions of key terminology and phrasing, and the application of in-scope and out-of-scope criteria or exceptions.

Terminology and definitions of in-scope outputs

Ninety per cent of consultees answered the first consultation question⁷: *To what extent do you agree or disagree that it is clear what research articles are in-scope of UKRI's proposed OA policy?* Most (82%) consultees who responded agreed⁸ with the statement. There was little difference in broad agreement by consultee type.

However, open responses from all groups, including many who agreed with the above statement, requested some further clarity and detail around specific types of articles, and conditions or criteria, that would be applied to determine whether an article would be considered in-scope or not. Definition was largely felt to be clear, with some suggesting that it could be more tightly defined to avoid confusion.

In addition, consultees requested further clarity around a variety of specific forms of research article such as research protocols and method papers, case reports/case studies, letters, opinion pieces, etc. Consultees said it is unclear whether these types of articles are considered in-scope of the policy, particularly where they are supplementary or secondary to the original research article, do not present original research findings, or are not 'peer reviewed'. Further clarity on the

⁷ Question 1. To what extent do you agree or disagree that it is clear what research articles are in-scope of UKRI's proposed OA policy (see paragraph 46 of the consultation document)?

⁸ Aggregate of strongly agree + agree

policy definitions of ‘article’, ‘peer review’ and ‘conference proceedings’ were also requested. This can reflect the need for the policy to be interpreted consistently and correctly by all stakeholders.

The current policy does not apply to peer-reviewed methods papers or peer-reviewed commissioned review articles. It should be clearly stated that the new policy does now apply to these article types. The policy must also clarify the definition of ‘research articles’ and whether this is intended to be drawn narrowly (just straight primary research and review articles) or broadly (e.g. research correspondence, opinion pieces, commentaries, conference summaries). [Business]

It is also unclear as to whether UKRI intends for only peer reviewed research outputs to be covered by the policy. Our experience with researchers and institutions indicates a tendency to apply the policy to all outputs produced by a funded researcher as an ‘insurance policy’. Specifically, we frequently field queries from authors of book reviews and special issue guest editorials who believe that their pieces are considered a mandated output. [Publisher]

Peer-reviewed articles

A small number of consultees felt that ‘peer-review’ needed more clarity, particularly for conference proceedings/papers. In more than one case, this was explicitly in response to the phrasing of the sentence ‘peer-reviewed research articles, including reviews and conference papers’.

We would suggest rewording this to say: "Within the scope of UKRI's proposed OA policy are all research publications which acknowledge UKRI funding: including peer-reviewed research articles, reviews and conference papers that are accepted for final publication in journals, conference proceedings with an ISSN, or on OA publishing platforms" This revised structure emphasizes that this policy applies to UKRI funded research outputs, and then describes specifically which types of outputs are supported. The existing statement suggests that only peer-reviewed reviews and conference papers would be supported. Given that many review publications and conference proceedings do not have conventional peer review processes in place that are comparable to journals, clarifying this component would be helpful. [Library]

You state in scope means ‘peer-reviewed research articles, including reviews and conference papers’ does that mean the reviews and conference papers need to be peer reviewed? Because in paragraph 49 you only use the term ‘in-scope peer-reviewed OA research articles’ suggesting the output types fall within the same group. [HEI]

There were also responses relating to how the peer-review process differs in different disciplines or output types, and so an open definition could be problematic. Consultees also noted it can be difficult to ascertain whether an article had been peer reviewed because it relies on the authors providing this information. Although this relates to implementation of the policy, this also supports the need for clarity around the requirement for ‘peer-review’ for an article to be considered in-scope.

What counts as peer-reviewed research? e.g. articles targeted at school level audiences in commercial journals (e.g. Geography, Geography Review) in theory could be based on UKRI-funded research. These articles are a good way to disseminate findings to wider audiences than just academics, but might only undergo editorial revisions rather than full independent peer review. Are they in scope or not? [Learned society which outsource publishing]

Here, and throughout this consultation, there is a serious ambiguity about what ‘peer-reviewed’ really means. [Researcher]

Specify how ‘peer-reviewed’ status is to be determined: it is not a standard metadata field and therefore difficult and labour-intensive for university library staff to verify. [HEI]

This is clear, but in action, it might still be difficult to apply. It may be difficult for administrators of the repository to know what is an original peer-reviewed article when some publishers use the same terminology differently depending on the disciplinary context e.g. Letters in cell biology are different to geoscience. Often, it is up to the author to make the University aware if the research is original research and peer-reviewed. [HEI]

Reviews

The most common point of clarity requested by consultees in response to question 1 was whether 'reviews' incorporated all types such as literature reviews, book reviews, editorials, systematic reviews, invited reviews and commissioned reviews. This was of particular interest, but not unique, to respondents outside of STEM.

Several consultees felt it should be made clearer that the UKRI policy does not consider reviews that are secondary to an original research article in-scope if the original article has been published under the proposed OA policy. Consultees said such publications were unlikely to be planned or written under original project funding. Commissioned reviews were highlighted most frequently in this type of response.

The sole ambiguity in the policy that we can see is the word 'review', which in the humanities is most often used to refer to book reviews published in academic journals... It is very unlikely that such a review, even a more substantial review article, would ever need to acknowledge UKRI funding, and so would not be within the scope of this policy, but it would nevertheless be useful to have a note defining the term more precisely. [HEI]

The phrase 'including reviews ...' requires clarification. Recipients of UKRI funding in A&H might conceivably write reviews or review articles, i.e. accounts of published material in a field; these differ from 'reviews' in STEM subjects and should not be subject to OA requirements. [Learned society which outsource publishing]

If original research funded by UKRI is made OA via the policy, is there a reason why this secondary coverage also needs to be OA? There is unlikely to be enough funding to cover article publication charges (APCs) for primary research articles, let alone for secondary outputs such as reviews. Therefore, for these reasons, we feel that review articles should not be included in scope of the policy. [Learned society with in-house publishing arm]

We would also like it to be made explicit whether commissioned review articles are out of scope. These articles, in many disciplines, are specifically commissioned by the publisher, are outside the author's original publishing plans and thus it would be unfair to expect these reviews be 'in scope' but we would like to see publishers encouraged to make these articles open access. However, it is accepted that in other disciplines, where review articles are commissioned differently and contain substantial original research these should be considered as being 'in scope'. [HEI]

Conference proceedings

Some consultees wanted clarity on policy wording in paragraph 46 that states 'conference proceedings with an ISSN' are in-scope of the policy. Consultees highlighted practical queries and challenges in defining these outputs and applying the OA policy to them. For example, are conference proceedings required to be published through a publisher, or if the proceeding is published on a conference website, is this sufficient. Again, this is largely an implementation concern, but it also reflects the need for further clarity around the in-scope requirement for this output.

In addition, consultees said that conference proceedings are published in different ways and may have an ISSN, and ISBN, or both. Where there is both, consultees asked whether the proceedings would be considered as an article or book, under which part of the policy they would fall, and how they should be treated. Whilst not strictly definitional, one respondent queried the need for an ISSN for conference proceedings.

There is still uncertainty in the sector about the in-scope status of research articles in conference proceedings, specifically the distinction between the conference paper, and formal publication in a volume of conference proceedings. Conference papers may undergo multiple stages of peer-review and early publication before revision and subsequent publication in conference proceedings. For the avoidance of doubt, it may be useful to expand the definition of conference proceedings. [HEI]

There is an opportunity to be forward looking with respect to conference proceedings. An ISSN is not a measure of quality. Unlike individual journal articles, conference papers cannot be published individually on an OA platform; they must be part of a 'set of proceedings' with an ISSN. Conference organisers find this challenging; often outsourcing to a publisher with whom they do not have a longstanding relationship, and negotiating OA rights just doesn't happen. A forward looking policy needs to re-think this criteria. [HEI]

Some consultees also noted similar confusion under the REF policy (see Section 3.11) for further detail), and said that clarification would be welcome.

Articles with multiple sources of funding

Consultees wanted clarity on policy wording that stated all articles which 'acknowledge UKRI funding' are to be considered in-scope. Some consultees queried whether a threshold or a minimum proportion of UKRI funding should be applied for an article to be considered in-scope.

Where research was funded by two or more sources, some felt UKRI's grant(s) should represent a majority share (at least 51%) for an article to be considered in-scope. There was also the suggestion that the 'acknowledgement' of funding was not clear enough.

Multi-funded work – could the UKRI clarify that its OA policy applies to work with at least some UKRI HE funding acknowledged in the work being published. [Publisher]

Acknowledgement of funding: Some ambiguity could be removed in PARA 27 by replacing "partially or fully funded" with "directly funded." Examples below have created uncertainty: a) An article including data collected using equipment or facilities purchased through EPSRC funding. b) An article acknowledging AHRC doctoral funding, published a significant period after award, but using data produced during research activity (e.g. archival material) funded by the doctoral award. [HEI]

What constitutes an OA publishing platform

Some felt the definition of 'OA publishing platforms' should be clarified and examples provided. Consultees who commented acknowledged the definition provided in footnote 23 within the policy document but requested further detail. Specifically, consultees questioned:

- how to distinguish OA platforms from repositories, subject or pre-print servers and self-publishing platforms
- the requirements for ISSN and CC BY licensing
- what does *not* qualify as an OA platform

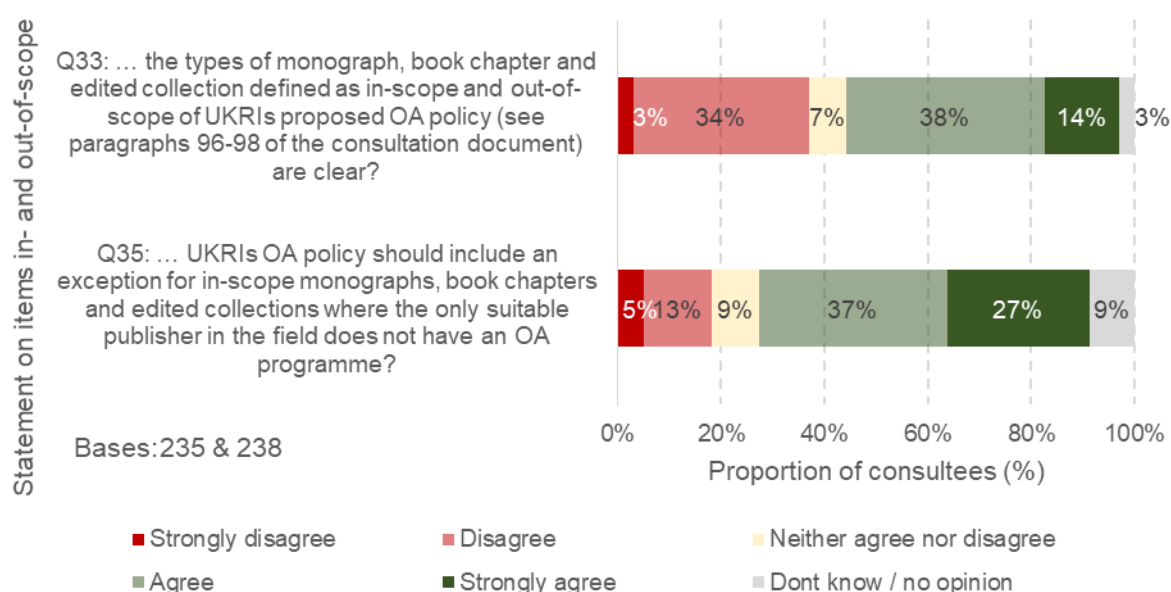
It would be helpful to include clarification of what constitutes an OA platform and perhaps more importantly, what would not qualify (this is only partially covered in note 23). The description and language needs to be understandable by all, not only to the OA cognoscenti. Adequate discussion of pre-print servers is also relevant in this context. [Business]

Please clarify what is meant by 'and on OA publishing platforms'. Does this mean including items on OA platforms such as pre-prints servers and repositories? Does it mean that items not on an 'OA publishing platform' are excluded from the policy? [Membership body]

3.1.2 Monographs, book chapters and edited collections

Page 27 (paragraphs 96-99) of UKRI's consultation document defines academic monographs, book chapters and edited collections as in-scope of the UKRI's proposed OA policy when acknowledging funding from UKRI. Outputs considered out of scope are trade books, scholarly editions, exhibition catalogues, text books, and all types of fictional works and creative writing. UKRI is also proposing exceptions for an academic monographs, book chapter or edited collection which requires significant reuse of third-party materials (where permissions for reuse in an academic book cannot be obtained for all third-party images or other materials) or where the only suitable publisher in the field does not have an OA programme.

Figure 1: Level of agreement with statements regarding in- and out-of-scope long-form outputs



Source: Consultee responses, March to June 2020

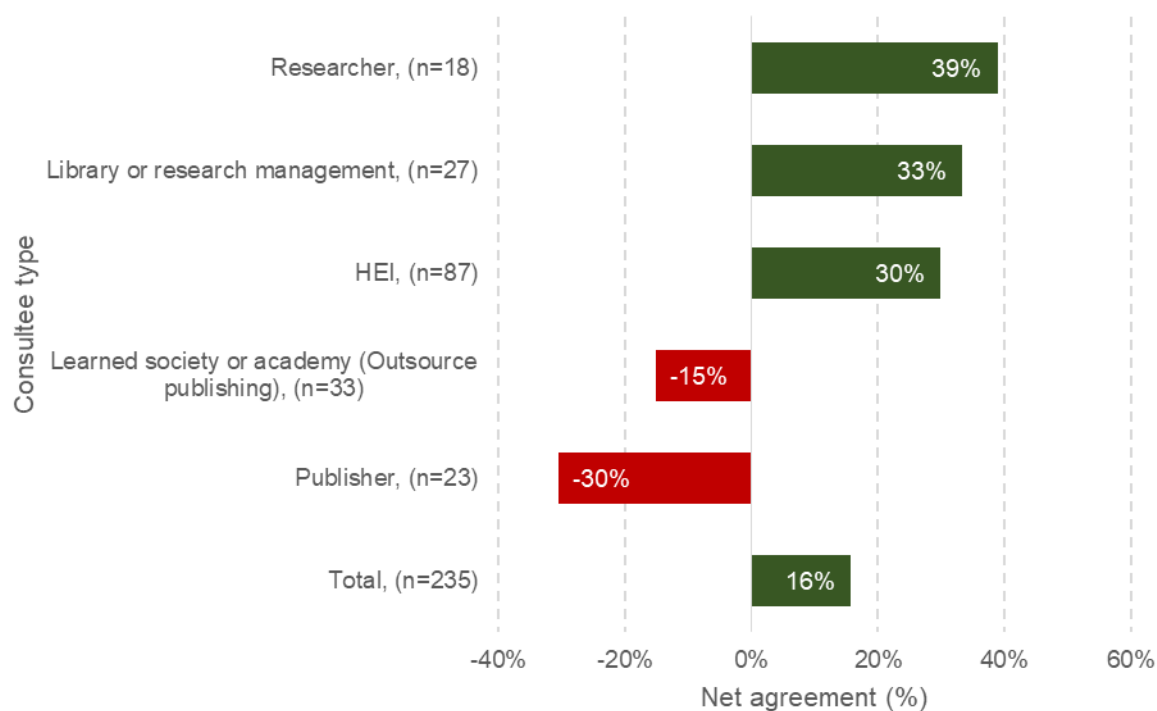
Agreement that the types of in-scope monographs, book chapters and edited collections was clear was mixed (Figure 1). Whilst over half answering question 33 (53%) agreed it was clear which items were in- and out-of-scope, more than a third (37%) disagreed⁹. Figure 1 also shows that

⁹ Question 33. To what extent do you agree or disagree that the types of monograph, book chapter and edited collection defined as in-scope and out-of-scope of UKRI's proposed OA policy (see paragraphs 96-98 of the consultation document) are clear?

nearly two-thirds (64%) of consultees answering agreed to the exception to scope where *the only suitable publisher in the field does not have an OA programme*¹⁰.

Net agreement¹¹ differed by consultee type. Publishers and learned societies which outsource publishing were more likely to disagree that it was clear which long form outputs were in- and out-of-scope. Conversely, researchers, or consultees representing libraries or HEIs were more likely to agree (Figure 2). The authors draw attention to the low base sizes from which percentages are drawn for some consultee types.

Figure 2: Net agreement as which monographs, book chapters or edited collections are in or out of scope by consultee type



Source: Consultee responses, March to June 2020

Terminology and definitions of in-scope and out of scope long-form outputs

Consultees from across all groups requested further clarity on the policy definition of ‘trade books’. The majority of those commenting broadly welcomed their exclusion. However, consultees noted the potential for significant overlap with monographs or other types of academic book. The place of ‘crossover’ books that sit on a nuanced ‘sliding scale’ between academic and trade books was also unclear. Consultees also raised concerns about the use of print runs and price points as criteria for defining whether a monograph is considered a trade book.

We agree that trade books should be exempt from the policy however more clarification is needed in terms of the definition. Although the definition described in the UKRI proposed policy is useful more clarity is needed. It may be too easy to claim a title is a trade book in order to opt out of the OA policy if

¹⁰ Question 35. To what extent do you agree or disagree that UKRI's OA policy should include an exception for in-scope monographs, book chapters and edited collections where the only suitable publisher in the field does not have an OA programme?

¹¹ The total proportion who strongly disagreed and disagreed subtracted from total proportion who strongly agreed and agreed

the definition is not clear. The varying nature of monograph publishing should also be considered here, particularly in terms of how 'research' is defined across different disciplines. This makes it very difficult to clearly understand what would be in scope. We would also be interested to know if the revised policy considers professional/practitioner books, do they fit into the definition of what constitutes a trade title? We would like professional/practitioner books to be considered as out of scope outputs alongside trade books, but again a clear definition is important. [Publisher]

Some noted the degree of overlap may vary further by discipline. Variations in naming conventions used within book publishing may also cause difficulties in applying policy definitions for scope. A small number expressed concerns that the way in which trade books are defined will require careful consideration in order to prevent 'gaming' to avoid OA compliance. For example, consultees said that unless carefully defined, any monograph or book could be defined as a trade book in order to opt-out of the OA policy, and this will be difficult to monitor and enforce.

Clarity was also requested on handbooks (particularly those that do not contain primary research); other reference works; published translations; edited conference proceedings, and that the definition of scholarly editions was unclear. One respondent suggested that as the latter was defined as a REF output type R, this exclusion seemed inconsistent with the aims of the UKRI OA policy.

Long-form outputs with multiple sources of funding

Some consultees, from a variety of respondent groups, asked for clarity on wording relating to multiple sources of funding. Specifically, they queried how the policy phrasing '*editor(s) of the collection acknowledge(s) funding from UKRI*' should be applied. Consultees said that most edited collections include research from a broad range of contributing authors supported by different funders. They felt it unlikely that UKRI would have funded research for a whole collection or for all contributing authors. In some cases, the editor may only contribute an introduction. As noted with respect to articles, consultees suggested that an edited collection should only be considered in-scope where all or the majority of research or contributing authors are in receipt of UKRI funding. This stipulation would protect opportunities for non-UKRI funded authors to contribute to these outputs and conversely, not discourage UKRI funded authors from contributing and sharing their research in this way.

As written, the policy applies to edited collections 'when the editor(s) of the collection acknowledge(s) funding from UKRI'. Where all contributed chapters arise from UKRI-funded research, that is reasonable. In many cases, however, individual chapters will be provided by authors whose research has not been funded by UKRI; for some edited collections, the editor may well have only directly contributed an Introduction. We believe that it is inappropriate for UKRI to attempt to enforce a policy for researchers they have not funded. [Learned society which outsource publishing]

The in-scope definitions (monographs, edited collections, chapters) are clear in so far as they refer to the book types generally referred to by these names. However, edited collections should only be considered in scope when both the collection editor is UKRI-funded and a majority of chapters in the book result from UKRI-funded research as most collections include a broad range of contributing authors from a number of (international) institutions supported by different funders. In addition: The definitions provided for the in-scope outputs are broad and could apply to other academic book types. [Publisher]

Outputs based on UKRI funded doctoral research

A little over half of all consultees that responded to the question '*Should the following outputs be in-scope of UKRI's OA policy when based on UKRI-funded doctoral research*'¹² felt each of the

¹² Question 34: Should the following outputs be in-scope of UKRI's OA policy when based on UKRI-funded doctoral research?

three listed research outputs should be in-scope when based on UKRI-funded doctoral research. Of all consultees:

- 53% said academic monographs should be in-scope
- 56% said the same for book chapters
- 51% felt edited collections should be in-scope

There were very strong correlations between closed responses to these three questions¹³. Publishers were more likely to say that each of these three items should be in-scope whereas learned societies which outsource publishing were less likely to. Consultees who agreed felt that this aided consistency across the policy and would be of public benefit.

We support the inclusion of outputs based on UKRI-funded doctoral research to be treated in the same way as other outputs of the same form, acknowledging UKRI funded research, and to avoid any divergence in how works are treated dependent upon the career stage of the author [HEI]

We applaud this stipulation since it will change the way that post-PhDs and their PIs publish OA. To date, many are concerned with depositing work in repositories with no embargoes since this might hamper opportunities to publish a book – to the detriment of research and the visibility of publicly funded research. This funder policy is an important step to change this practice. [Advocacy organisation]

As well as offering support, open responses to this question also highlighted particular financial and practical challenges and questions around their inclusion. Two key questions were raised in relation to the criteria that would be applied to outputs based on UKRI-funded doctoral research:

1. What is the time frame for in-scope outputs following completion of a thesis?
2. Who is responsible for subsequent outputs – including monitoring, compliance and costs?

Those disagreeing that these outputs should be in-scope when based on UKRI-funded doctoral research had concerns about:

- Limiting publication options for postgraduate research students
- Creating particular difficulties for ECRs, particularly funding gold OA if they want to publish after the grant and no longer have access to funding
- Time lapsing between completion and publication creating enforcement difficulties
- Impacting the current practice of depositing theses in institutional repositories
- Publishers not accepting these due to the input required to develop a thesis into a monograph
- Complications in AHSS in particular ‘where funding streams and their respective research outputs are not so clearly delineated’ [Publisher]

Several suggested that as theses on which these outputs are based already fall within OA policy and are deposited green OA in institutional repositories, this should be sufficient to ensure that the research is accessible. One respondent felt that this should be encouraged but not mandated, and reviewed in time.

We do not believe that there are financial models yet in place (or likely to be in place by 2024) that will facilitate the sustainable publication of these types of output in OA form. ECRs with doctorates characteristically have to wait several years before they gain permanent employment; no-one is going

¹³ At least 0.82 at the 0.01 level

to pay for gold OA in that period. To force them down routes which are unavailable to them contravenes EDI norms, and possibly legislation. [Learned society which outsources publishing]

We are concerned about a step that could place additional constraints on the ability of doctoral students and ECRs to get their work published. Making a first monograph based on a thesis in scope could impose unrealistic financial burdens on individuals seeking to establish a career and publication profile while not currently holding a permanent salaried academic post. Doctoral students and ECRs will have limited leverage with publishers and editors (especially those outside the UK) to insist that their contribution to a volume is OA. UKRI removed funding some time ago which allowed PhDs or recent postdocs time to focus on developing their work further into a book, but if OA were to become a requirement it may be necessary to re-introduce such grants in Arts, Humanities and Social Sciences (AHSS). It would also place smaller, specialist organisations who focus on AHSS subjects in a difficult position if they would be required to support OA publication from internal monies which given their size and disciplinary focus they may not have access to, affecting their ability to support PhD candidates in an appropriate way. [HEI]

Time frame for in-scope outputs

Some consultees argued that OA publication of a doctoral thesis via an institutional repository in line with current UKRI funding regulations should be sufficient to meet the policy. Some requested clarity of the policy term ‘based on’, how that should be applied for subsequent outputs, and how long following completion of the thesis the policy would apply. Consultees said that long-form outputs resulting from doctoral research may be published many years after the completion of the thesis and after the student has moved on from the awarding institution, or be in between their grant-award period and next academic employment.

The long lead-in time for publication of long-form outputs was cited as a significant practical challenge and barrier with this type of output. The majority of those commenting emphasised that publication of these outputs is not likely to occur within the time frame of study and recent graduates may have no institutional affiliation, no access to an institutional repository and/or no access to funding to support OA costs at the time of seeking publication. Consultees requested clarity on whether the student or institution will be responsible for monitoring and compliance with the policy.

Access to financial support for OA costs

Linked to the above, there were questions asked about what financial support would be available to support OA publishing costs for doctoral students or Early Career Researchers (ECRs). Specifically, consultees questioned who would be responsible for OA costs and what support might be available when individuals leave the HEI where they completed their thesis, or leave academia altogether.

Consultees said individual doctoral students and ECRs are likely to have limited or no access to funds to support OA publishing. Further, the publication of a first monograph is in some disciplines a critical first step in the individuals’ career. The costs of publishing under OA could be a threat to this career development process. Consultees suggested inclusion of these outputs within the policy should be undertaken with flexibility, appropriate exceptions and support to ensure that doctoral students and ECRs are not disproportionately impacted compared to other researchers.

Not without restrictions. No to all. The proposed policy might disadvantage early career researchers, researchers in fixed-term positions, and independent researchers. Researchers who do not presently hold an academic post, or whose post is about to begin, or who completed the research at another institution might find it difficult to secure the funds to cover the costs of OA publishing. One option is to have a policy that allows for exceptions. [Learned society which outsource publishing]

Under current regulations UKRI funded theses are available OA in any case. Given uncertainty around access of ECRs to funding for OA publication (many will not have institutional affiliation around the period when they are trying to get their first articles/book published) this would be an exclusionary and

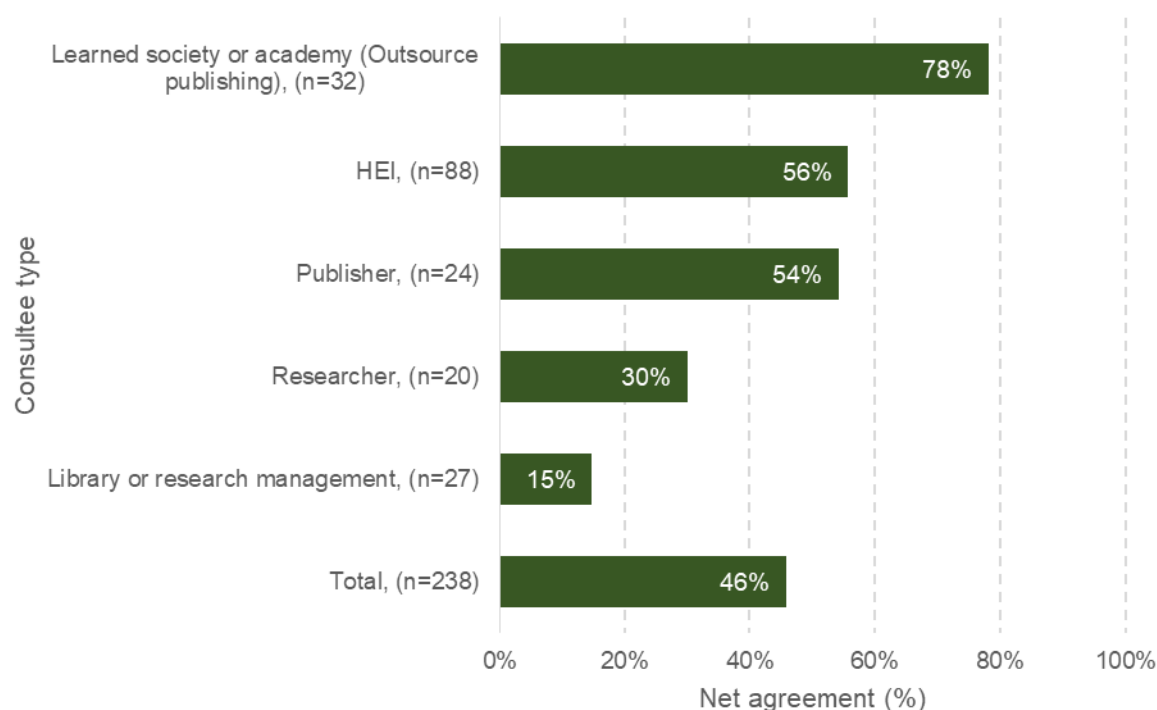
retrograde requirement. The logistics of monitoring this -- given that said doctoral students will be likely to have left their universities -- seem very costly in time and effort. [Researcher]

We would like the answer to be yes, because the value of OA applies here, and it is important that early career researchers are involved on OA practices from the outset. However, the practical obstacles are significant: at the time of publication, the researcher may not have an institutional affiliation, or may be working for an HEI in the UK or abroad that does not have access to UKRI OA block grant or even an appropriate OA repository. There would therefore need to be significant exceptions made available. The alternative would be for a distinct policy statement to apply to UKRI-funded doctoral research which would make clear which routes to compliance they can use (e.g. Green deposit in their PhD-awarding HEI's repository); or potentially for a separate funding stream which doctoral students/graduates can apply to even after the end of their studies. In any case, compliance monitoring would pose a challenge, because the PhD-awarding HEI cannot be held responsible for OA compliance from a publication that may well not emerge until years after the student has graduated. [HEI]

Exceptions where the only suitable publisher does not offer open access

Overall agreement with the statement that *OA long form policy should include exceptions where the only suitable publisher does not have an OA programme*¹⁴ was higher, but there remained differences in the propensity of different types of consultee to agree (Figure 3). Learned societies which outsource publishing were much more likely as a group to agree with this proposition (net agree +78%) whereas agreement from representatives of libraries was weaker (+15%).

Figure 3: Net agreement that UKRI's OA policy should include an exception for in-scope long-form outputs where the only suitable publisher does not have an OA programme by consultee type



Source: Consultee responses, March to June 2020

¹⁴ Question 35 of the consultation

As acknowledged within UKRI's proposed policy, responses to this question described OA publishing for long-form outputs as an emerging, evolving service and is in an earlier phase of development compared to OA for articles. Consultees from all groups therefore welcome this exception and emphasise the need for flexibility, particularly at the first introduction of the policy, as they believe this will lead to a more successful policy implementation.

Researchers and representatives from HEIs, publishers and learned societies indicated that an author's freedom of choice over the most suitable publication venue for their work should be prioritised. They noted that without this exception, author choice of where to publish is restricted and authors may be unable to publish in the most suitable, relevant or highest quality venue for their publication.

Consultees also felt that this exception was necessary to protect the diversity of publishing and the interests of small and specialist subject publishers who may not be able to offer OA routes to publishing.

However, some consultees wanted more clarity on the definition of 'suitable publisher', further guidance on who will be responsible for deciding or defining whether a 'suitable' publisher exists, and information on how this will be monitored and enforced. Some expressed concern that without clear and specific guidance, such an exception creates a 'loophole' which could be used to avoid compliance. Consultees suggested that a reliable mechanism is required to validate claims and the use of this exception.

Consultees suggested that use of this exception be monitored and reviewed in one to two years, while others suggested that in order to support authors to make informed decisions about options for OA publishing, suitable infrastructure is required in advance of the introduction of the policy.

The most suitable publisher in a field for an in-scope monograph could be a smaller publisher, particularly in niche areas. For academics in our organisation who have signed contracts with these smaller publishers, insisting that they make their work OA would result in an inability to publish their work. [Researcher]

We fully agree with this. UKRI must take account of the potential of its policies to inadvertently diminish and impede the capacity of UK scholars to publish with presses in countries that lack developed OA policies, which include the USA (plus plenty of small presses in the UK). This could have the unfortunate effect of fostering insularity and undermining the incentives for the internationalisation of UK research. The effects of this trend will be more pronounced in some disciplines and fields than others, but it certainly includes History, which is so international in its scope and its publishing practices. The phrase 'only suitable publisher' will have to be defined very loosely. [Learned society which outsource publishing]

Having regard to the relative novelty of immediate OA for monographs, edited collections and book chapters, as well as the fact that they may fall under the OA policy while being only partly or indirectly connected with UKRI funding, some exception of this kind would be prudent. There is evidence that only very small proportions of monographs published by leading publishers in the Arts, Humanities and Social Sciences are currently OA compliant, and therefore that publishers are unprepared for this paradigm shift. [HEI]

3.2 OA routes and deposit requirements

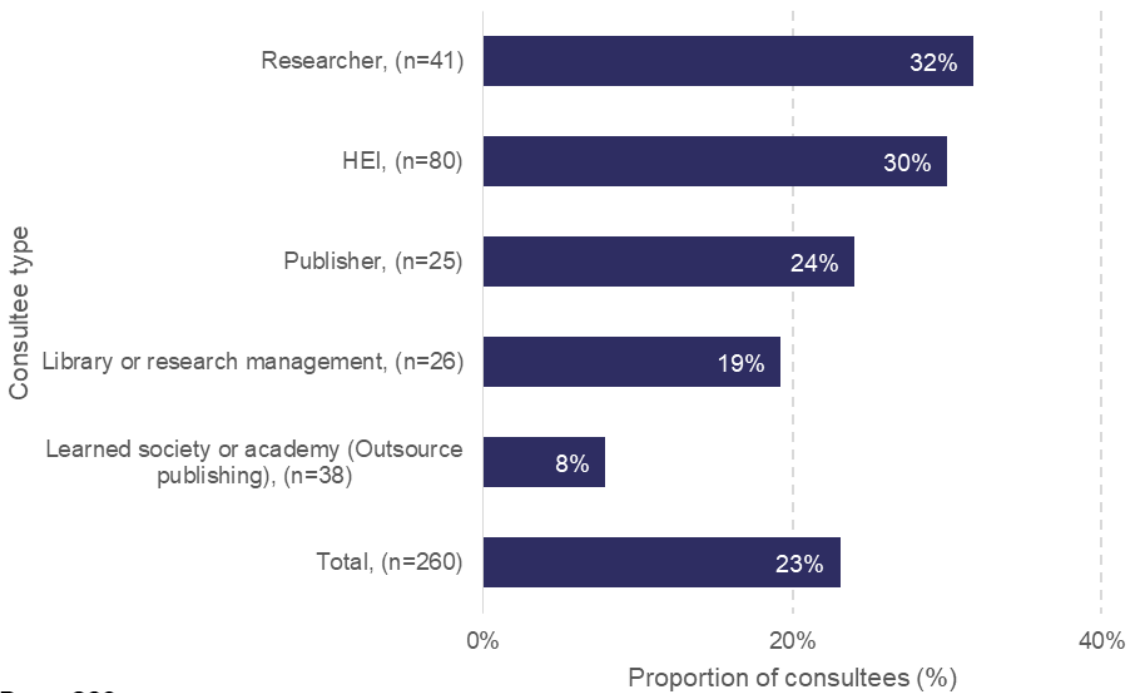
3.2.1 Research articles

Alternative venues for peer-reviewed research articles

Under paragraph 47 of the consultation document, it is proposed that in-scope research articles will be considered compliant with UKRI's OA policy if the final published version of the paper (the version of record) is made freely and immediately available online via a journal or OA publishing platform (gold route), or the version of record or peer-reviewed author's accepted manuscript is made freely and immediately available online at the time of publication in an institutional or subject repository with no embargo period permitted (green route).

Three quarters (74%) of consultees responded when asked *whether UKRI should consider any other venues for peer-reviewed research articles*¹⁵ which are not stated in paragraph 47 of the consultation document. Two thirds (65%) of those answering did not think venues other than those suggested for peer-reviewed research articles should be considered as part of the policy and fewer than a quarter (23%) thought other venues should be considered. Learned societies which outsourced publishing were the least likely (8%) to think other venues should be considered (Figure 4).

Figure 4: Proportion of consultees stating UKRI should consider other venues for peer-reviewed research articles not stated in the consultation document by consultee type



Source: Consultee responses, March to June 2020

¹⁵ Question 3: In setting its policy, should UKRI consider any other venues for peer-reviewed research articles which are not stated in paragraph 47 of the consultation document?

This difference is also reflected in the logit model for all learned societies¹⁶ which shows the odds for such consultees to consider other venues were much lower than other consultees and a response which marks such consultees out compared to all others.

A number of potential alternatives were proposed. It was felt that institutional or subject repositories may not be accessible to all, for example in the case of a researcher who is not employed at the grant-holding institution at the time of publication. In response to this, a small number of suggestions were made for other venues. The most common suggestion was a preprint server (with BioRxiv and MedRxiv given as examples), though there were suggestions that if these were to be included, clarification would be needed about compliance requirements and the version that would be required to be deposited. It was felt that enhancing access to the research output should be the primary motivation for including alternative venues.

Other suggestions, mostly from researcher, library and HEI consultees, point to other options such as using a single source (e.g. PubMed, or a central repository); clarification around UKRI's position on commercial repositories (e.g. SSRN, Research Gate, academia.edu); potential use of a publication portal (e.g. Research Catalogue); or university websites; or if management systems acting as institutional repositories (e.g. Pure) would be compliant. A small number of consultees from different groups stated that the options given were too restrictive, and suggested adopting a flexible approach to compliant venues that would allow for new platforms to emerge and support smaller organisations.

The platform definitions in p47 could be considered rather restrictive. OA could, for example, be achieved by outputs being discoverable and downloadable from an institution's website not just from an institutional repository. The potential future role of ResearchGate, academia.edu and Google Scholar in facilitating OA may also need to be considered carefully. [HEI]

It is likely that publishing platforms will continue to evolve during the applicable term of the policy and beyond. To support innovation or repurposing of existing platforms using existing resources, UKRI may wish to broaden the definition of OA publishing platform, space within the policy for innovation, or repurposing of existing platforms, such as institutional repositories or pre-print servers in balance with the need for quality control and research validity. Neither of these mechanisms is mentioned in the current definition of OA publishing platform in paragraph 47 (footnote 23). Both may be used to disseminate original research which has undergone some form of peer-review. [HEI]

Authors are most likely to adhere to policy when they are free to choose the most appropriate and convenient path to compliance. Limiting acceptable green OA venues to institutional or subject repositories could inadvertently limit opportunities for innovative collaboration between authors, publishers and institutions. [Publisher]

Consultees posed some questions in relation to question 3, particularly around how subject repositories would be considered compliant. Clarity was requested, with a suggestion of a registry of approved venues to aid this. One final consideration was the need for any new platforms to be sustainable and of sufficient quality to maintain scholarly trust in publishing through various routes.

Clarity on what constitutes a compliant subject repository would be welcome. There has been some lack of clarity over this over the course of the current REF. For example, under certain conditions, papers available on pre-print servers like arXiv are compliant; however this was not clarified from the start. [Infrastructure provider]

It should be made clear whether the definition of 'institutional repository' includes institutional webpages, particularly for small and specialist research institutions. The current REF Open Access policy makes allowance for this. The cost of research management systems that provide much of the

¹⁶ Learned societies or academies: with an in-house publishing arm; that outsource publishing; and that do not publish at all.

technical functionality required for Open Access compliance are unfortunately prohibitive for small and specialist research institutions such as ours. [HEI]

Challenges of complying with immediate OA of in-scope research articles

Question 4 asked whether there are *any specific challenges for you, your community or your organisation in terms of complying with the requirement in UKRI's proposed policy for immediate OA of in-scope research articles?*¹⁷ More than nine in ten (91%) of consultees answered the question and compliance issues featured in the majority of answers. Particular issues that are said to present barriers to compliance (throughout the consultation, not just question 4) include lack of infrastructure, operational challenges, administrative burden and the potential subsequent costs arising to become compliant.

Restrictions on compliant routes to OA

Around three dozen representatives from groups that publish (publishers and learned societies) said that the option for zero embargo as part of a green route was infeasible or unsustainable for their organisation (although other publishers offer such routes). These consultees predicted that zero embargos would negatively impact their subscriptions and thus income, making them financially unviable and unsustainable. See also sections 3.6.1, p.98; 3.9, p.133; 3.10, p.142; and 3.11.1, p.150 for other discussions on green zero embargo routes.

Zero embargo green route is not a business model - it provides no income. On its own, zero green embargo OA cannot financially support publishing processes that are essential to underpinning trust and confidence in published research - including the provision of high quality peer review, editing and copy editing - and efficient promotion, dissemination and discoverability. There is insufficient evidence that zero embargo green OA does not/will not, as discoverability improves, undermine subscription sales. It is those sales that provide the revenue to support and enable peer review and other article production processes that are required to reach a good quality AAM stage. We do not see any evidence in social science for a business model that derives in-come post green OA publication from re-packaging and re-selling collected content. [Learned society which outsource publishing]

In order to facilitate OA in AHSS funding for gold OA is required because green OA with no embargo will undermine the subscription model that underpins the ecosystem. In the absence of public funding the cost of publishing will be further deferred to the academy, resulting in increased inequalities between and within universities. [Publisher]

Many HEI consultees say that while some journals already offer OA or are moving towards an OA offer, other journals, particularly small, subject specialist or prestigious journals in some disciplines, do not offer suitable compliant routes. In most cases, consultees said that while journals may offer a gold route, this option is not financially possible or sustainable for individuals or all institutions, and that many journals do not currently permit a green OA route with a zero embargo. A few HEI consultees also said that some publishers do not allow an AAM to be deposited in an institutional repository with a CC BY licence. Consultees felt that this leaves them in a position with no 'middle ground'; they are unable to comply if neither the gold OA route nor green OA with zero embargo is available to them. Consequently, consultees said their ability to comply with the proposed OA policy was constricted.

¹⁷ Question 4: Are there any specific challenges for you, your community or your organisation in terms of complying with the requirement in UKRI's proposed policy for immediate OA of in-scope research articles?

Please explain and, where possible, evidence your answer. UKRI notes that there will be a period allowing for implementation before the policy comes into force (see paragraph 70 of the consultation document).

It will be difficult to fulfil the criteria of making research articles OA via the green route i.e. making an author's accepted manuscript freely and immediately available online at the time of publication in an institutional repository. Without adequate infrastructure such as a CRIS (significantly expensive) or the Jisc Publication Router (additional costs involved) and also require increased staffing levels to handle this extra administrative burden. A workaround could be UKRI negotiating with publishers to allow deposit of the author's accepted manuscript in the institutional repository (without an embargo) prior to publication. The longer publisher embargoes (12 to 24 months for Panels C & D) will also have a disproportionate impact on [HEI]. There is further discrepancy between current publisher policies, with some allowing zero embargo deposits (such as Sage, Cambridge University Press etc.) while others do not. Work needs to be done to ensure publisher policies across disciplines allow zero embargo deposits to avoid curtailment of choice and diversity in publishing options for AHSS scholars. [HEI]

Some consultees noted that smaller scholarly journals support a diverse community of academic researchers and offer growth for new publishers by providing a low-cost route to OA. These consultees were concerned that smaller publishers would be subsumed by larger publishers. Similarly, a few learned societies (or other non-profit organisations) who own or part-own hybrid journals said that they will need time to consider alternative models

Operational challenges of complying with the requirement for immediacy

A number of consultees requested clarity over how the policy phrasing 'immediate' (paragraph 47) will be defined. They said the current phrasing is problematic and poses an operational challenge and barrier to compliance. They note that in the first instance, dates of publication are not known in advance and that authors and institutions are not immediately notified when an article is published. This requirement would rely on the author notifying the individual or team within an institution responsible for repositories and them making the article(s) available on the same day. Consultees said that proposed OA requirements would create an additional administrative burden that would only be increased by the proposed immediacy of the policy, necessitating a workflow that would not be feasible to implement. Consultees suggested that a period of time following the publication date should be allowed, such as in the current REF policy, in order to facilitate compliance.

Some consultees mostly representing HEIs also questioned who will be responsible for monitoring and ensuring compliance with the OA policy, particularly for multi-authored articles, part-UKRI funded research, international collaborations, or if the author does not have control over the publication, for example, conference proceedings. The consultation document highlights that compliance would be written into the standard terms and conditions associated with UKRI funding. The concern from consultees was how this would work in practice, especially where the terms and conditions applied by other funders contain dissonant policies or requirements.

There is a specific practical barrier for institutions in relation to para 47b; these processes require significant manual intervention within universities to ensure compliance. For example, there is no robust automatic mechanism to identify exactly when an article deposited in a repository has been published - Jisc Publications Router helps but still does not allow us to guarantee OA on the date of publication. Resource is also required to check peer review status. This risks creating further disparity between research intensive universities and those with very small repository teams and limited research support infrastructure, e.g. no CRIS. We fully support the aspiration of immediate OA, but in order to deliver it we would need to see automated systems (e.g. improved Pub Router) or other streamlined processes developed before Jan 2022 that enable repository teams to comply. [HEI]

A zero embargo green option undermines both the subscription and APC business models. It would lead to cancellations of subscriptions as libraries with budget cuts decide that they no longer need to pay to access articles. If APCs are not charged there is no business model to support publication. A zero embargo green option also introduces confusion for readers as it will lead to sub optimal versions (e.g. the author manuscript version) of papers deposited in different repositories. Publishers invest significantly in the processes of assessing and verifying research output through high quality selection

and peer review; correcting papers to make their messages clear; and publishing on their platforms, which require continual development with tools that make articles more discoverable. [Provider of scholarly communication infrastructure or services]

The proposed policy endorses the use of embargo-free green Open Access as a route, which is not practicable for us. Our primary concern relates to the inevitable loss of publishing income that will result. This will pose serious challenges to our ability to support members and further the political studies discipline which matches our organisational mission. Beyond financial challenges, we also wish to draw your attention to quality issues associated with green Open Access. Specifically, green Open Access can create problems in maintaining the integrity of the scholarly literature, in as much as green versions in repositories will not be linked to corrections, retractions or metadata updates, unlike their corresponding versions of record which are updated via mechanisms such as Crossmark. Similarly, versions of record are marked up to maximise accessibility for readers with, for example, visual impairments; few if any institutional repositories offer the same functionality, meaning that accessibility for green Open Access versions is usually sub-optimal, with corresponding impacts on equality and inclusion. [Learned society which outsource publishing]

Requirement for repository deposit

Nine in ten (89%) answered question 5: *Should UKRI's OA policy require a version of all in-scope research articles to be deposited in a repository, irrespective of whether the version of record is made OA via a journal or publishing platform?*¹⁸ Fewer than half (45%) of all consultees who answered supported the proposition that UKRI's OA policy should require a version of all in-scope research articles to be deposited in a repository and 37% did not support this view. Support was highest amongst consultees representing libraries (73%) and HEIs (67%, Figure 5, overleaf); support was much lower amongst publishers (13%) and learned societies (6-7%). The Logit model also found significantly lower odds that all learned societies and publishers would support this view.

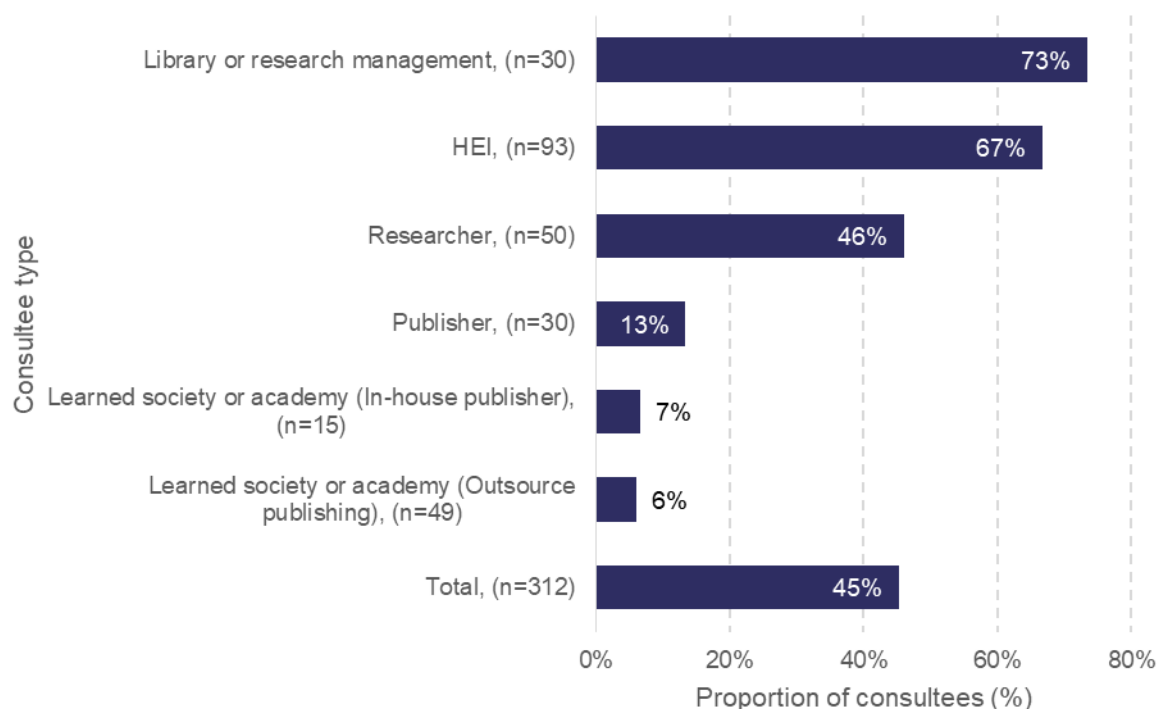
Several reasons were given by representatives of libraries and HEIs in favour of repository deposits. The two most common were to maximise discoverability and accessibility in line with the OA policy, and to ensure long-term preservation of the article. The latter was highlighted as important to mitigate against the risk of the host of a publishing platform going out of business. HEIs and libraries suggested that this would help to facilitate compliance and reduce the administrative burden as depositing and reporting would be straightforward for them.

It is University policy to place copies of all our research outputs in our institutional repository (IR) for curation and preservation purposes. There is no guarantee or obligation on publishers to ensure long term access and preservation, so we believe the research community must carry out this function as a failsafe. The policy, supported materially by a UKRI or other national repository, furthers this objective. [HEI]

Some consultees (particularly those not directly connected to the publishing industry) felt that institutional repositories are an important route to OA that avoid the significant publishing costs and article processing charges (APCs) payable through the gold route, and so should be encouraged as an alternative rather than as an addition to a journal or publishing platform.

¹⁸ Question 5: Should UKRI's OA policy require a version of all in-scope research articles to be deposited in a repository, irrespective of whether the version of record is made OA via a journal or publishing platform?

Figure 5: Proportion of consultees stating UKRIs OA policy should require a version of all in-scope research articles to be deposited in a repository, irrespective of whether the version of record is made OA via a journal or publishing platform by consultee type



Source: Consultee responses, March to June 2020

Reasons against a repository requirement largely came from those with a commercial publishing interest. The most common response was that this would be an unnecessary duplication of effort, particularly if the deposited copy was not the version of record (VoR). Any funds directed to this requirement was perceived to be taking funds away from gold OA publishing. It was also suggested that having multiple versions in different places could be confusing and create concerns relating to version control and copyright.

This would be duplicative, confusing for users, fragment usage measurement and reporting for authors and funders, and an unnecessary administrative burden for all. Provided publishers are archiving content with preservation archives (e.g. CLOCKSS, Portico) no additional hosting is needed and may raise integrity risks from delays or failures in archived versions being updated with corrections / retractions. Web of Science data shows that 18,000 documents published in 2015 have since been updated. These changes may not be clear to those accessing accepted manuscripts. It would be better to focus on improved discovery services, pointing users to the version of record [Publisher]

If researchers comply via OA publishing and the version of record is available on the publisher's website, it is additional work for researchers and repository teams to upload a version in a repository, with no added value. UKRI should still encourage their researchers to upload all their articles to the institution's repository, as a matter of best practice. Individual research institutions may also wish to make this a requirement for archiving and preservation purposes, and to ensure that researchers' online staff profiles, populated by the institution's repository, are comprehensive. However, in terms of compliance, UKRI should deem an article as compliant if published open access. [HEI]

Suggestions unrelated to whether they supported this requirement or not include encouraging deposit in a repository, rather than making it mandatory, and investigating options for deposit to

be an automated process if it were to be a requirement so as not to use extra time and resource. Concern was also raised about researchers who might not have access to an institutional repository, with the suggestion that an open repository should always be available particularly where a subject repository may not exist.

3.2.2 Monographs, book chapters and edited collections

Embargo periods for monographs, book chapters and edited collections

Consultees' views on individual embargo periods for monographs, book chapters and edited collections were very similar¹⁹. In each case, over three in ten felt 12 months was appropriate and a similar proportion felt a longer embargo period should be allowed.

Table 4: Consultee views on embargo periods for monographs, book chapters and edited collections

Response	Monographs	Book chapters	Edited collections
12 months is appropriate	31%	34%	32%
A longer embargo period should be allowed	32%	26%	31%
A shorter embargo period should be required	7%	8%	7%
Different maximum embargo periods should be required for different discipline areas	17%	22%	16%
Don't know	6%	5%	7%
No opinion	8%	6%	6%
Base	235	232	231

Source: Consultee responses, March to June 2020

Consultees representing publishers and learned societies felt differently to others regarding all embargo periods. In the case of monographs and edited collections, they argued for an embargo period longer than 12 months. They were more likely to feel the period should be flexible for book chapters than other outputs considered. This is likely to be one reason why 17 of 21 publishers (81%) provided specific views or evidence regarding funding implications for embargo periods (Q40²⁰) compared to 44% of all consultees completing this question. There was also a fairly strong statistical relationship between those expressing views on embargo periods and those expressing views on funding levels, funding mechanisms and costs associated with monographs, book chapters and edited collections²¹. See section 3.4 for further information on funding.

Those that supported either a 12-month embargo, or a more flexible discipline-specific embargo length, did so regardless of monograph, book chapter or edited collection. This was supported by

¹⁹ Questions 37 to 39: Regarding [ITEMS] in-scope of UKRI's proposed OA policy, which statement best reflects your view on the maximum embargo requirement of 12 months?

²⁰ Question 40. Do you have any specific views and/or evidence regarding different funding implications of publishing monographs, book chapters or edited collections with no embargo, a 12-month embargo or any longer embargo period?

²¹ Question 53. Do you have any views regarding funding levels, mechanisms and eligible costs to inform UKRI's considerations about the provision of funding for OA monographs, book chapters and edited collections in-scope of its proposed policy?

consultees reporting that consistency around embargos for all long-form outputs would simplify the policy and limit confusion.

Despite overall agreement across these outputs, monographs were referred to more frequently when discussing complex and lengthy (and therefore costly) contracting and publishing processes. Several referred to a lack of evidence and thus understanding of the potential implications of an OA policy for monographs given the lack of existing policy. The main concerns with edited collections was, in line with responses to other questions, the implication of multiple-authored outputs that may have partial UKRI funding.

Those HEI and library consultees who supported a 12-month embargo period felt that this provided a reasonable balance between encouraging OA compliance whilst still allowing some publishing income from sales. Several of those agreeing referenced UUK's work (which cites Fund, et al., 2019)²² that shows the majority of monograph sales occur in the first 12 months. Occasionally this agreement was caveated with suggestions such as the need for some exceptions (higher than expected sales requiring a second print run), potential for reviewing this embargo period again in the future, or other flexibilities in the policy for discipline-specific differences.

Having too long a period potentially undermines the value of translation into practice, in whatever form is appropriate, and certainly delays the realisation of that value. Differential embargo periods would introduce complexity and confusion. They would also undermine interdisciplinary outputs. [Business]

Evidence from UUK²³ suggests that most revenue for monographs is made in the first 12 months from publication. There is also evidence that making a text available open access can act as marketing and drive some sales. A 12 month embargo period would therefore seem reasonable, and provide for consistency with other outputs. [HEI]

Those giving reasons against a 12-month embargo were largely those with a commercial publishing interest, citing an inability to recoup what can be substantial publishing costs, particularly for monographs (see below and Section 3.6 for examples). However, a small number of publishers disagreed, stressing that they already published books gold OA with a zero-embargo period.

Publisher and learned society respondents were more likely to support a longer embargo period than HEIs, libraries and researchers. Where a longer embargo period was supported by, this was often in reference to AHSS publishing across monographs, book chapters and edited collections, where some suggested 24 months or longer. Many consultees, from all groups, stated that those within AHSS may need an embargo longer than 12 months or at least a more flexible approach. This was largely due to the financial implications for publishing income of imposing a 12-month embargo period, to account for longer embargo periods often imposed by publishers, and to acknowledge that the time-sensitivity of content is generally different to those in STEM.

Some HEIs and libraries also highlighted the need for a longer embargo period in order to allow publisher costs to be recouped and encourage publisher compliance with OA. They also expressed concern over this aspect of the policy due to the unfamiliar context of OA publishing for monographs in particular.

Beyond commercial concerns, there are different degrees of time sensitivity in different disciplines, with shorter embargo periods usually applying to STM fields versus longer ones in AHSS, as evidenced by the British Academy's report Open Access and Book Chapters (2019), which found for green Open Access 'the most commonly stipulated embargo periods are 12 months (sometimes explicitly for science

²² Report and full citation information available at: <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2019/Fullstopp-Final-October-2019.pdf>

²³ As above

books), and 24 months (sometimes implicitly for humanities & social sciences books).’ We believe that while the 12 month embargo period may be appropriate for book chapters in the natural sciences, a longer period of no less than 24 months should be set for book chapters in the arts, humanities & social sciences. [Representative body for publishers]

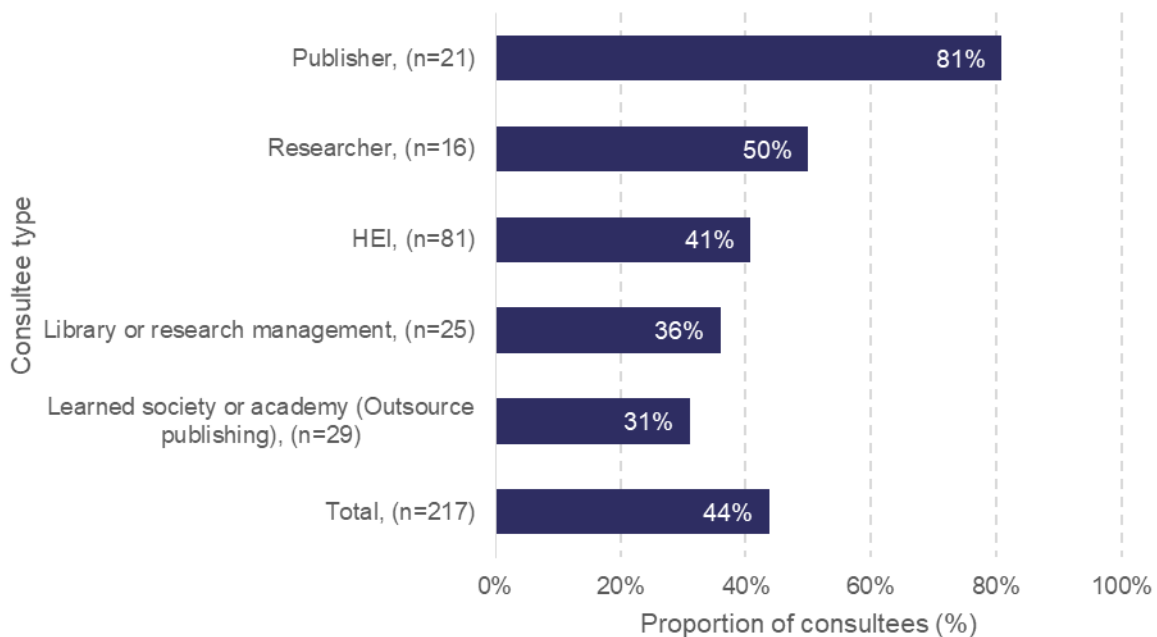
This is too big a shift in current practice in too short a space of time, to require 12 months for all subject areas. Where possible the embargos should be consistent across subject areas to avoid confusion, especially when interdisciplinary research is involved. There has been no research to back-up the selection of a 12-month embargo period. Indeed, it seems unsupported by the recent UUK report on ‘Open access and monographs’ which suggested that ‘70% of publisher sales take place in the first two years after publication, with 80% of sales taking place in the first three years’. Proper assessment of likely impact on the publishing industry of embargo periods should be undertaken. This is especially important as we move into a deep recession. [HEI]

There was some support for a zero embargo period for long-form outputs, mainly amongst researchers but also a small number of HEI and library consultees. This correlated with their support for gold OA as the primary model that UKRI should be working towards across all outputs (and alignment with Plan S), with the rationale that any embargo period undermines the accessibility benefits and objectives of OA.

Funding implications of embargo periods

Consultees were asked if they had *any specific views and/or evidence regarding different funding implications of publishing monographs, book chapters or edited collections with no embargo, a 12-month embargo or any longer embargo period*,²⁴ for which 62% gave a response. As shown in Figure 6, publishers were very likely to have a view.

Figure 6: Whether consultees had specific views and/or evidence regarding different funding implications for long-form outputs based on embargo periods by consultee type



Base: 217

Source: Consultee responses, March to June 2020

Again, the costs of publishing long-form outputs, and particularly monographs, underpinned much of the opposition to a 12-month embargo period. Almost all open responses to this question (for which nearly twice as many publishers responded compared to all others) referenced financial rather than funding implications of embargo periods. Those with a publishing interest strongly felt that an embargo period of this length would not be viable as they would be unable to recoup their costs; other types of consultees gave some similar thoughts. There was the concern that the cost would be transferred to researchers or institutions, or publishers would not continue to publish this type of output.

Consultees also emphasised the significant investment in terms of costs and added editorial value that publishers bring to preparing long form outputs for publication. Consultees felt that zero or standardised embargo periods would not allow publishers to recover this investment, would negatively impact income from sales, and may result in some publishers no longer wishing, or being unable to take on these outputs. In particular, some consultees noted that longer embargo periods offer greater 'protection' for smaller or niche publishers operating on smaller financial margins compared to larger publishers.

²⁴ Question 40: Do you have any specific views and/or evidence regarding different funding implications of publishing monographs, book chapters or edited collections with no embargo, a 12-month embargo or any longer embargo period?

Particularly in the SSH disciplines the long-form publications last for a long time and sales over a long period are important to the viability of the business plans such that costs are covered over time. One blanket policy that includes journals and long-form publications is not appropriate and does not reflect the disciplinary differences. Longer embargo periods are required for investments to be recouped. In terms of evidence one of our STEM book publishers achieves almost one third of its sales after the third year of publication, and 61% of sales after 12 months; an early embargo would very likely make this book publishing programme unviable. Monographs require a funding policy. If UKRI does not provide funding but wants to secure monographs publishers will stop investing in them, threatening the whole future of this means of disseminating research. Sufficient funding for publishing all in-scope categories is paramount to meet the requirements in this outlined policy. [Organisation – scholarly communication infrastructure or services]

Learned societies expressed concern that the funding implications of a zero or 12-month embargo period would result in increasing subscription rates or other charges on members to recoup costs.

Respondents felt that the financial impact to HEIs and libraries would be in having to potentially meet any book publishing charges (BPCs) or other costs and fees to publish long-form outputs. Respondents suggested that this could result in researchers opting for journal articles instead. Some consultees responded with concerns outside the scope of the consultation that authors may lose out on royalties, which may be particularly pertinent for independent researchers who published outside of the UKRI grant time-frame and are then no longer affiliated to a HEI at the point of publication.

The standardisation of embargoes on monographs is the primary concern. As referenced above, the levels of publisher investment in monographs vary so widely, and library purchasing behaviour would be impacted so dramatically by a standard embargo, that we strongly advocate for no maximum to be set. Indeed, research undertaken with publishers indicates that investment in monographs can vary between £3k to £22k+ for an STM monograph. When looking at usage data for 2018, publishers reported that only 18% of purchases were accessing content published in the 12 months prior. The same percentage were accessing 2017 content, whilst 27% of users were accessing content from pre-2013. This demonstrates the significant half-life of long-form research. If the current policy is implemented as is then, where no funding for BPCs is made available, publishers will be forced to operate at a loss in publishing long-form research, and investment in editorial and quality assurance process for UK monographs will be damaged. [Publisher]

For our monographs published as far back as 2007 we can now evidence that whilst 68% of sales occurred in the first 12 months of sale, 17% occurred after 61 months and 20% of total sales were after 36 months. The result of a 12-month embargo on the Version of Record would be a loss of 32% of sales revenue. The margins on our monographs are incredibly tight and many of them do not make a profit at all. The ones that do support the books that don't have high sales potential, but we feel are important to publish. [Publisher]

*A 12-month embargo period is reasonable; however, some academic input asked for a longer period. Authors should be encouraged to seek immediate OA wherever possible. However, a view that 12 months is appropriate for all disciplines seems to go beyond the evidence available at this point. [HEI] Press publishes OA monographs alongside priced print editions, with no embargo period, and print sales can still be significant. We typically see an average of 180 print sales in the first year after publication, with the highest around 400 copies, alongside total downloads that have now topped 3 million. Print sales revenue does not recoup all costs, however, as [HEI] Press's sales model differs in a number of regards from that of a commercial publisher. The impact on sales of open access has been studied by Ronald Snijder in *The Deliverance of Open Access Book: Examining usage and dissemination*. However, the longer-term impact on print sales of a larger-scale transition to open access warrants further and ongoing study. [HEI]*

Publishing OA for long-form research is still an area where experimentation, as for OA in research articles, is still taking place... UKRI is forging ahead of others with its OA policy for long-form

publications, but an unclear policy approach, particularly in relation to funding, will cause confusion for researchers and inhibit UKRI's objectives of increasing OA uptake. While UKRI's policy proposes access to a final version of record, the policy does not clarify details for funding this kind of access. In order for publisher experimentation and implementation of book and monograph OA publishing to continue, UKRI's policy could be clear and supportive of funds for Book Publishing Charges under the Pay-to-Publish model. This model will meet UKRI's objectives in enabling free and immediate access to the final content. Equally, and perhaps more importantly in the absence of funding mechanisms for the Pay-to-Publish model, UKRI could support a sustainable Pay-to-Read route to achieve its policy goals, which we would fully support. However, implementing a policy that doesn't provide a flexible and sustainable approach towards the Pay-to-Read (green) OA route, with the use of reasonable embargo periods, will prove unviable and would ultimately risk harming UK publishing sector more broadly. In addition, and to note, researchers receive royalties from publishers from their publications. Incentives for researchers to publish books may be undermined if they instead must Pay-to-Publish and hope for royalties from any sales. UKRI's proposals therefore risk being unworkable if no viable funding options are proposed for a Pay-to-Publish route, while the Pay-to-Read route is governed by unsustainable embargo periods. [Publisher]

However, there were some claims, mostly from researchers, HEIs or libraries, that OA and short or zero embargo periods does not have a negative impact on sales. Several consultees cited the OAPEN research projects and the work of Ronald Snijder²⁵ as demonstrating this, with some claims that where an OA version of a book increases discoverability this could lead to an increase in print sales. Only one publisher and no learned societies supported a zero-embargo period for monographs.

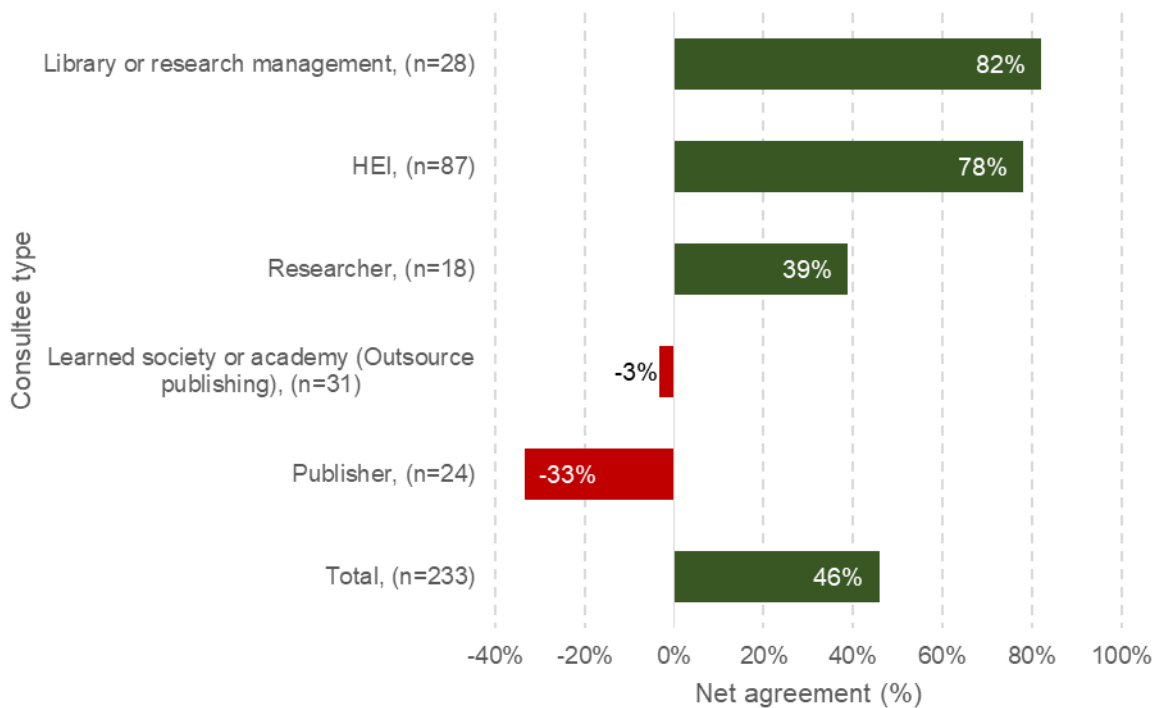
Self-archiving

UKRI's proposed OA requirement for in-scope monographs, book chapters and edited collections is that the final version of record or post-peer-review author's accepted manuscript may be a self-archived version. Two-thirds (67%) of all consultees answered question 41²⁶ which asked whether respondents agreed or disagreed that the policy should support self-archiving the post-peer-review author's accepted manuscript. Nearly two-thirds (63%) agreed this should meet the OA policy requirement. Opinion between consultees differed with those representing HEIs more likely to agree (85%) and publishers more likely to disagree (62%, versus 17% for all). Difference in net agreement as shown in Figure 7.

²⁵ For example, Snijder, R. (2019) *The Deliverance of Open Access Books: Examining usage and dissemination*. Amsterdam University Press.

²⁶ Question 41: To what extent do you agree that self-archiving the post-peer-review author's accepted manuscript should meet the policy requirement?

Figure 7: Net agreement that self-archiving the post-peer-review author's accepted manuscript should meet the policy requirement



Source: Consultee responses, March to June 2020

Support for self-archiving a manuscript

Researchers, libraries, HEIs and other Research Performing Organisations (RPOs) gave the most responses in support of self-archiving, mostly because it would be accessible and facilitate compliance with the OA policy through enabling green OA. Respondents suggested that self-archiving the AAM would avoid what can be potentially high BPCs, typically associated with immediate open access. Respondents considered self-archiving as a way of making OA more affordable and accessible, particularly to smaller HEIs. Some expressed this was of particular relevance to AHSS disciplines where BPCs are perceived to be higher.

A small number of respondents also suggested that a self-archiving option for long-form outputs might also help with the consistency and clarity of the OA messaging in aligning with that for research articles. Policy alignment and self-archiving generally was considered important in making compliance as easy as possible and minimising the risk of confusion. Where this perspective was offered, it was largely from HEI or library representatives.

As has been the case for journal articles in recent years, the post peer-review AAM is fully capable of informing the reader of the details and outcomes of the research. Users of archived accepted versions will still be directed to the version of record for citation purposes. green OA should therefore be just as compliant for long-form publications as it is for research articles. This will help to ensure consistency in how the policy is communicated to researchers, which will help to ensure a high rate of compliance. [Library]

Authors are concerned that the proposed policy for OA monographs will restrict where they can publish, for example because of the cost of the BPC. Allowing a green route, as we have for articles, will help allay these fears. It will also simplify the process and messages to authors i.e. 'act on acceptance; deposit

in [repository]' will apply equally to long-form publications as to articles and proceedings. However, to date there are very few commercial publishers who allow the full manuscript to be archived, and therefore considerable pressure from funders, authors and others will need to be applied to publishers for this to be a realistic option. [HEI]

As a small, discipline focused institution the [HEI] relies strongly on the green route to Open Access, particularly because of the cost implications associated with the gold route to Open Access. The green route relies on the archiving of the post-peer-review author's' accepted manuscript and the [HEI] expects to continue to rely mainly on this mechanism to achieve OA compliance. The aspects of this proposed policy that focus on monographs, book chapters and edited volumes are likely to have disproportionate impact on arts, design and humanities institutions due to the publishing cultures prevalent in these disciplines. [HEI]

Those who did not agree with self-archiving the post-peer-review author's accepted manuscript were largely concerned about two aspects: the potentially substandard quality of an author accepted manuscript (AAM), and the impact on publishing revenue even with a 12-month embargo (also discussed in responses to Q40).

Risks of self-archiving a manuscript: impact on quality

For those who disagreed with self-archiving an AAM (mostly publishers and learned societies), a concern over the quality of this version was the most common explanation. Even amongst those who agreed with proposal, there was an acknowledged that an AAM, particularly for long-form outputs, can vary from a final VoR. It was felt that the copy-editing process for a longer manuscript can pick up errors and address issues such as language corrections; respondents were concerned that without this, the AAM can be a lower quality output and undermine the trustworthiness of a text. Formatting may also be different, with no/different pagination or index. If this version is cited, page numbers may be inaccurate. Quality concerns were expressed by those with and without a commercial publishing interest.

In AH the post peer review MS is likely to be rather different to the published version. In my own experience, the process of copy editing, correcting of proofs etc. introduces far more changes and corrections and is more iterative than with an article. I would not be happy - and I do not believe that most of my colleagues would be happy - for this version of a monograph to be freely and publicly available. It would create the undesirable effect of different variants of the same text existing in the public domain - with associated problems of referencing. [Researcher]

Significant changes are made to manuscripts during the production process. We do not believe it would be in the interests of the research community to make an accepted manuscript rather than a final manuscript available, regardless of embargo periods. [Publisher]

An MS which has not been copy-edited and whose pagination is not final is a very poor substitute for a published book and in particular does not allow authoritative citation. Such publication is acceptable if it keeps you guys happy, but it serves very little purpose for other researchers who need to use the material. This applies to individual chapters, but to a far greater extent to entire book MSS. All in all, it would be better if UKRI provided adequate funding to pay BPCs for monographs resulting from funded projects. [Learned society which outsource publishing]

Risks of self-archiving a manuscript: financial implications

Consultees from publishers and learned societies also reiterated the perceived financial implications of green OA for publishers if it restricted sales. It was felt that in comparison to journal articles or chapters, long-form outputs require a significant investment by publishers, particularly (though not exclusively) scholarly presses. Consultees from all types expressed concern that if this is enforced, publishers might not put the required investment into the book, leaving the author

with less choice if prestigious or international presses do not comply and potentially damaging the monograph publishing environment.

Immediately funded gold OA should be the primary mode of OA for all in-scope books because of the benefits it brings. Our research shows books published under this option are used seven times more, have 50% more citations, and 10 times the online mentions of books published under alternative models. Authors also strongly prefer this route... authors have a preference for policies that require immediate (gold) OA. [Publisher]

There was also a perception that this may not be viable with many publishers, as it would require an agreement that is not currently offered by many. Publishers may require long embargo periods or not agree to authors retaining copyright to protect their income.

These issues reflect an overarching concern from some that offering a self-archiving option may detract from and disincentivise gold OA, which respondents, particularly those with a commercial interest in publishing, often felt should be the primary model that the policy is working towards.

Self-archiving implications across different long-form outputs and disciplines

There are also complexities to consider with the different outputs. Book chapters were felt to be comparable to articles, both in terms of length and publishing processes, so would be more straightforward to align with research article policy and practice. Respondents suggested that monographs and full collections have the following differences that make this a more complex process than for shorter outputs:

- presentation differences (columns per page, no index, images in a separate file)
- different peer-review process
- length and complexity means a longer editing process, needed to check for accuracy
- the final physical output can be important
- complexity of metadata required, particularly for authors where English is not their first language

This question raised a number of specific issues for AHSS disciplines; humanities more so than social science due the creative aspect of much work in this discipline. Some felt there was greater significance attached to the copy-editing process, particularly in creative subjects, creating a bigger gap between the AAM and VoR. Respondents suggested that language and presentation are critical to the meaning of the output. It was also reiterated by some (in this case, publishers) that there is also a longer lifespan of usage (and sales) compared to STEM subjects. In this sense, it was felt for these respondents that it might not be appropriate to have a blanket policy for all disciplines.

Suggestions for self-archiving

A number of suggestions were made regarding self-archiving:

- At the same time, working with publishers to find a proposal that works for them, such as working towards agreements for archiving rights in contracts [HEI respondent].
- Self-archiving being a transitional step towards full gold OA, to allow time for viable financial models to be developed, the OA market for long-form outputs to mature [Publisher respondent].
- An OA VoR should be encouraged where possible to give a clear strategy for how UKRI will reassure those concerned about the quality of the deposited AAM. This could include

the need to link to the DOI of the VoR if available, or restrictions on citations if it is not [Publisher respondent].

- A 12 month minimum embargo (with a publisher preference for longer) [HEI and publisher respondents].
- Be clear that AAMs are an early version and not final, to allow for sales [HEI respondent].
- Any self-archiving allowance would still need repository infrastructure and support, particularly for researchers without access to an institutional one [HEI, library, learned society respondents].

3.3 Licensing requirements, copyright and rights retention

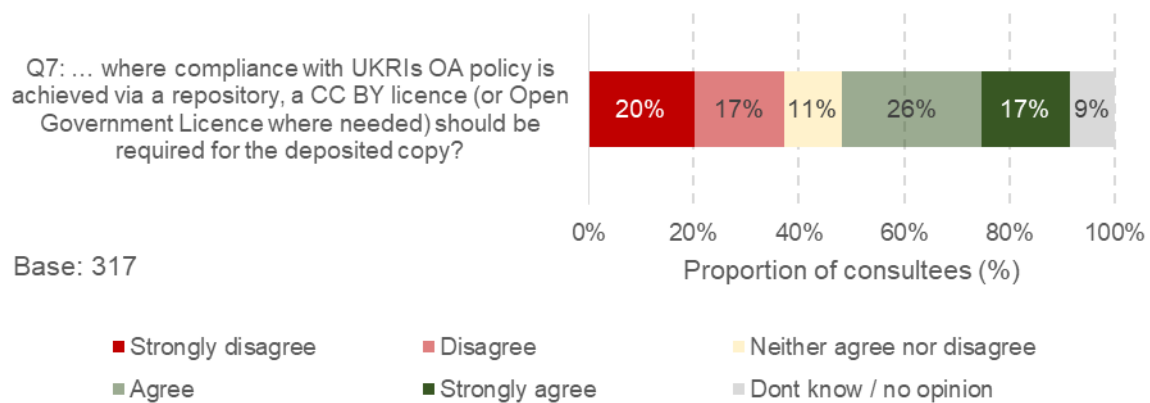
The discussion on licensing mainly covers Creative Commons (CC) licences scheme as described on the Creative Commons website²⁷. The other main license referred in the consultation document is the Open Government License (OGL²⁸).

3.3.1 Research articles

Requiring CC BY for deposited versions

Reflecting a new proposed requirement, the section on licensing opened by asking *to what extent do you agree or disagree that where compliance with UKRI's OA policy is achieved via a repository, a CC BY licence²⁹ (or Open Government Licence where needed) should be required for the deposited copy?*³⁰ Nine in ten (91%) consultees answered the question and of these consultees, more than two in five (43%) agreed with the proposition and 37% disagreed (Figure 8).

Figure 8: Consultees level of agreement with Q7's statement regarding licensing



Source: Consultee responses, March to June 2020

Figure 9 shows a large variation in net agreement³¹ by the type of consultee. Noting the low base sizes involved, there was stronger net disagreement from learned societies (-73%) and publishers (-63%) to the proposition. Nearly half of consultees from both these groups strongly disagreed with the statement. Conversely net agreement was stronger amongst representatives from libraries (+52%) and HEIs (+29%), and from researchers (+32%).

²⁷ <https://creativecommons.org/licenses/>

²⁸ <http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

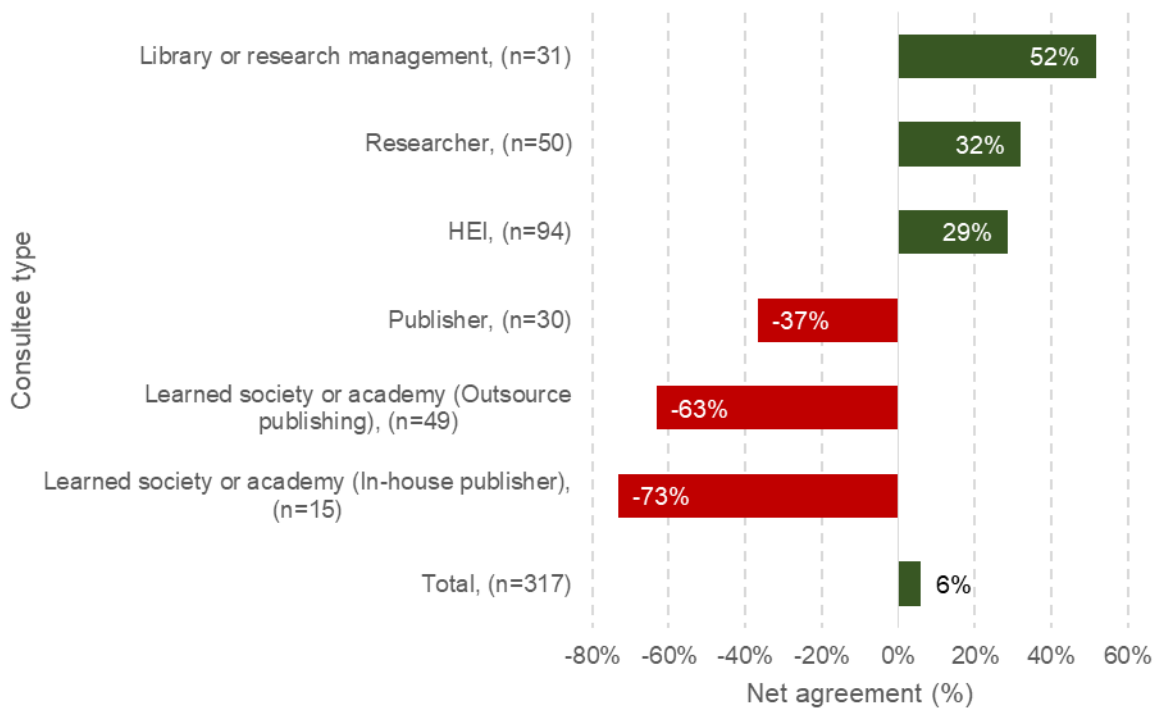
²⁹ From: <https://creativecommons.org/licenses/>

This license lets others distribute, remix, adapt, and build upon [an author's] work, even commercially, as long as they credit [the author] for the original creation.

³⁰ Question 7: To what extent do you agree or disagree that where compliance with UKRI's OA policy is achieved via a repository, a CC BY licence (or Open Government Licence where needed) should be required for the deposited copy?

³¹ The total proportion who strongly disagreed and disagreed subtracted from total proportion who strongly agreed and agreed

Figure 9: Net agreement on whether an article deposited in a repository should have a CC BY or OGL license by respondent type



Source: Consultee responses, March to June 2020

Consultees' views in support of the CC BY (or OGL) licensing requirement

As per Figure 9, most of those supporting the requirement for CC BY represented HEIs or libraries, or researchers. Reasons provided included:

- CC BY supports accessibility, discoverability (the ease with which articles can be identified and found by others) and the full reuse aim of OA and UKRI's policy (i.e. that publicly funded research should be widely and freely accessible to all). Some supportive consultees said CC BY beneficially reduces barriers to reuse of research as permissions do not need to be sought on an individual-by-individual basis. Reuse related to many activities mainly covering: using published research as a foundation for new enquiry; adapting or selecting elements of research for new purposes; and quotations, citations and as evidence in other papers, arguments, legal purposes.
- CC BY would provide simplicity, clarity and consistency in policy; allowing different licences introduces ambiguity to 'open access'
- Some HEI and library representatives noted CC BY aligns with Plan S, the Berlin Declaration or institutional systems and/or policies. However, for full alignment with Plan

S, it was suggested that CC BY-SA (attribution – Share Alike licence³²) and/or CC0³³ licence³⁴ would also need to be recognised by UKRI. A couple of consultees also suggested CC BY-SA was also more appropriate for AHSS outputs due to the nature of research in these disciplines. Some consultees who disagreed with the proposal also advocated allowing these licences.

Consultees agreeing with the proposition and providing comment tended to raise challenges despite their support, or not directly answer the question. Some agreed based on a belief in the wider principle of OA publishing, others based on technical issues of licensing, and others due to concerns about the interplay of rights, funding policies and conditions of publishing.

There was also those that argued for an unambiguous and consistent approach to licensing versus those wanting a policy that allowed for personal judgement and exceptions for specific outputs or disciplines. As such, the responses to this question were complex and nuanced.

Deposited copies need to be immediately available under terms and conditions that allow their full reuse, without any embargo period. Research articles should be licensed under the Creative Commons Attribution 4.0 International license (CC BY 4.0) to allow for their widest possible access, use and reuse. When articles are openly licensed using CC BY, they can be text and data mined, reused, translated into other languages, downloaded and freely shared with scientists, scholars and students around the world. [Provider of scholarly communication infrastructure or services]

Consultees' views against CC BY (or OGL) licensing requirement

Four core arguments were made against requiring CC BY. The first and most often mentioned was identified as a challenge for arts, humanities and social science disciplines. Around a dozen HEIs and a similar number of learned societies and publishers felt the inclusion of third party materials in research outputs would raise challenges where such material was not covered by a more restrictive licence as copyright holders of third party material may be less willing to grant reuse permissions. They suggested that the volume of potential redactions, omissions and alterations to deposited AAMs would remove meaning and value from outputs. Many of those raising this issue expressed a preference for allowing a more restrictive CC BY-ND (attribution, no derivatives) licence³⁵ to help allay third party copyright holders concerns. Other views concerning third party materials are presented under the response to question 9 later (p.53).

The second set of objections, raised mostly by learned societies and publishers, was a potential economic impact arising from expanding the CC BY requirement to deposited versions under a

³² From <https://creativecommons.org/licenses/>

"This license lets others remix, adapt, and build upon work even for commercial purposes, as long as they credit the authors and license their new creations under the identical terms. This license is often compared to "copyleft" free and open source software licenses. All new works based on the authors' will carry the same license, so any derivatives will also allow commercial use. This is the license used by Wikipedia, and is recommended for materials that would benefit from incorporating content from Wikipedia and similarly licensed projects."

³³ From <https://creativecommons.org/share-your-work/public-domain/cc0>

"CC0 enables scientists, educators, artists and other creators and owners of copyright- or database-protected content to waive those interests in their works and thereby place them as completely as possible in the public domain, so that others may freely build upon, enhance and reuse the works for any purposes without restriction under copyright or database law."

³⁴ The choice to opt out of copyright and database protection, and the exclusive rights automatically granted to creators.

³⁵ From: <https://creativecommons.org/licenses/>

"This license lets others reuse the work for any purpose, including commercially; however, it cannot be shared with others in adapted form, and credit must be provided to the authors."

green open access route. Specifically, concern was expressed that publishing the AAM under CC BY, may make users less inclined to subscribe to journal content and make it difficult to recoup publishing costs and impacting income.

CC BY is not an appropriate licence for AAM when deposited within a repository, and where no APC is paid to the publisher. This would require authors to make their raw manuscript file available to anyone without restriction on commercial or derivative use. We make substantial investments when publishing an article. Where no separate funding is offered (i.e. an APC), this model relies on subscriptions to ensure the sustainability of the business. The combination of zero-embargos with CC BY would be a significant threat to the viability of publishing businesses. [Publisher]

Many of this group (and some HEIs) also raised the potential for unplanned commercial exploitation arising CC BY enabling commercial reuse. The key concern was commercial organisations profiting from by repackaging freely available deposited AAMs in paid for publications. Due to these economic concerns, several consultees asked for CC BY-NC (attribution – non-commercial) licence³⁶ or, more commonly, CC BY-NC-ND (attribution – non-commercial - no derivatives) licence³⁷ to be allowed for deposited versions under a green OA route.

The third objection was mostly raised by several learned societies which outsource publishing, and a handful of publishers who felt CC BY did not provide authors enough protection or control for their output. For the learned societies, these objections centred on the subsequent (mis)use of research findings from which important context was removed. These consultees were concerned that sections of text from AAMs could be removed and used to incorrectly support arguments in other research. Publishers were more concerned with authors' freedom to make their own choices regarding licensing decisions. This point also relates to the question on exceptions which is covered next.

Finally, a number of consultees representing different stakeholders noted that many publishers do not currently allow CC BY licences to be applied to deposited AAMs. Reasons, where given, reflected the points made above. Some HEI and library consultees said discussions with publishers would be necessary to encourage them to change their policies.

We do not support the addition a CC-BY licence to author accepted manuscripts which could permit a third party to commercially publish the article and thus undermine the publisher's only means of recouping the cost of peer review and manuscript processing up to the stage of acceptance. In mathematics there is an established culture of sharing versions of papers up to and including the AAM, however this is typically only permitted under a distribution or CC-BY-NC-ND licence. [Learned society which outsource publishing]

We do not see that others should be able to profit from publicly funded research that builds on the intellectual property of the researcher. The model of knowledge creation in the social sciences and humanities is not compatible with that in the sciences, and will often rely on the freely contributed IP of third parties. In the case of Social Anthropology, its primary method of ethnographic research, using participant observation and mixed methods, relies on the goodwill and trust of sometimes vulnerable

³⁶ From: <https://creativecommons.org/licenses/>

"This license lets others remix, adapt, and build upon authors' work non-commercially, and although their new works must also acknowledge the authors and be non-commercial, they don't have to license their derivative works on the same terms."

³⁷ From: <https://creativecommons.org/licenses/>

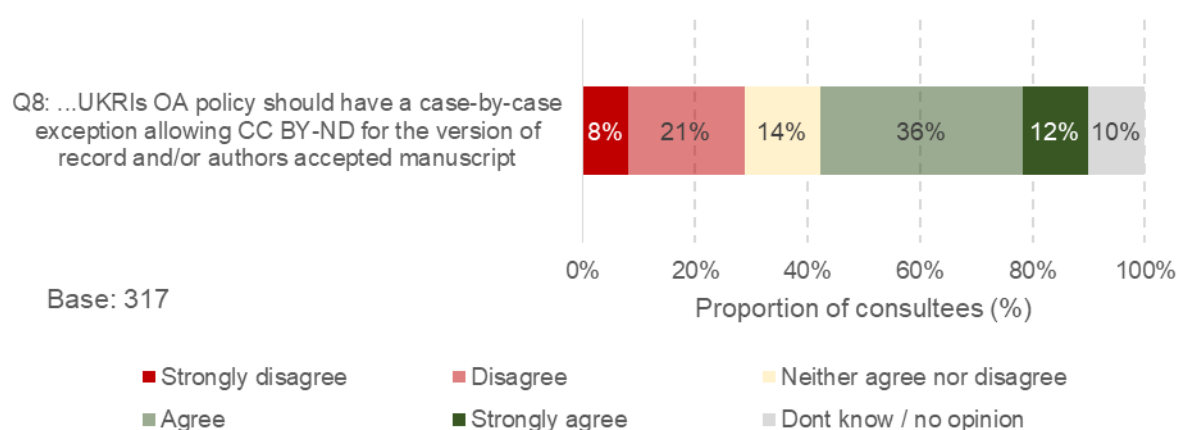
"This license is the most restrictive of the six main licenses, only allowing others to download authors' works and share them with others as long as they credit the authors, but they can't change them in any way or use them commercially."

participants. It would be entirely unethical to allow third parties to exploit this commercially without the full and informed consent of all contributors to the original research findings. [Learned society which outsource publishing]

Whether there should be a case-by-case exception for CC BY-ND

The consultation sought views and supporting evidence on the extent to which consultees *agreed or disagreed that UKRI's OA policy should have a case-by-case exception allowing CC BY-ND for the version of record and/or author's accepted manuscript?*³⁸ This was presented as an open consideration in the consultation, with UKRI's current OA policy not allowing CC BY-ND. Nine in ten (91%) consultees answered the question and of these consultees, views were again mixed (Figure 10). Nearly half (48%) of those answering agreed with the case for exceptions whereas 29% disagreed.

Figure 10: Consultees level of agreement with allowing a CC BY-ND case-by-case exception



Source: Consultee responses, March to June 2020

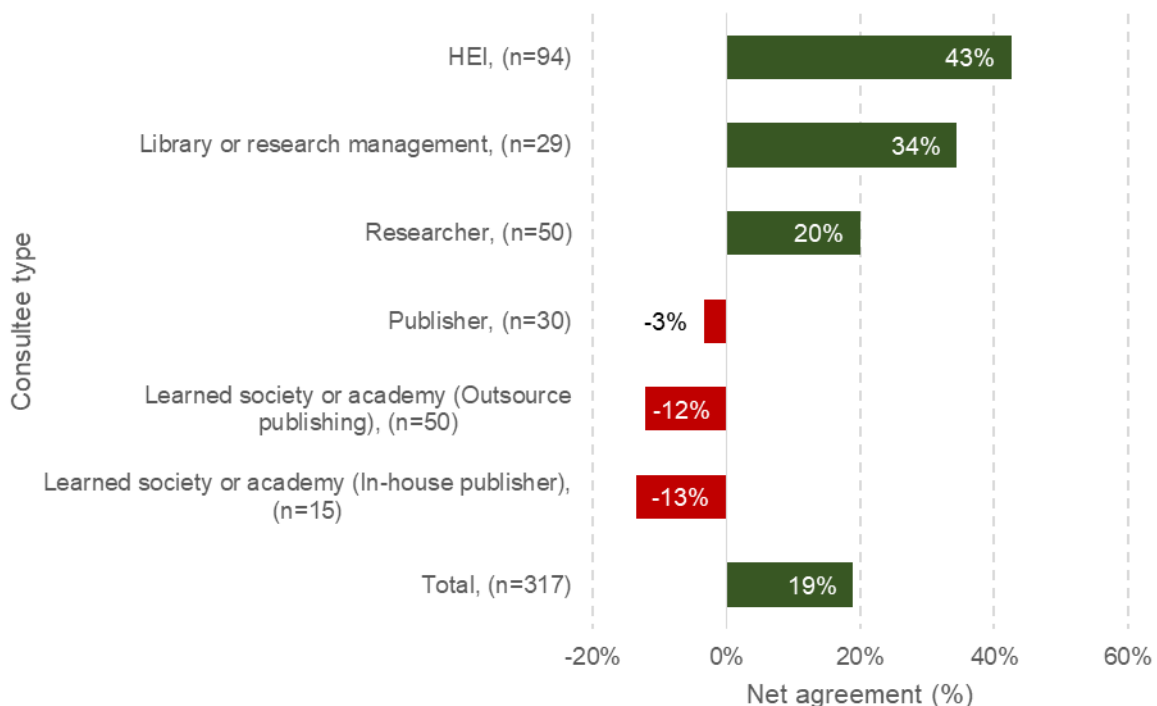
Figure 11 shows a lesser variation in net agreement³⁹ by the type of consultee compared to Q7 (Figure 2). In particular, disagreement from learned societies and publishers was weaker regarding case-by-case exceptions allowing CC BY-ND. As with Q7, net agreement for case-by-case exceptions allowing CC BY-ND was found from representatives of HEIs (+43%), libraries (+34%), and from researchers (+20%). In the case of HEI consultees, the Logit model showed increased odds to agree with exceptions.

³⁸ Question 8: To what extent do you agree or disagree that UKRI's OA policy should have a case-by-case exception allowing CC BY-ND for the version of record and/or author's accepted manuscript.

Please explain your answer. UKRI particularly welcomes evidence supporting: specific cases where ND is considered necessary; an ND exception not being necessary; any implications an ND exception could have for access and reuse

³⁹ The total proportion who strongly disagreed and disagreed subtracted from total proportion who strongly agreed and agreed

Figure 11: Net agreement with allowing a CC BY-ND case-by-case exception by consultee type



Source: Consultee responses, March to June 2020

Responses to open questions regarding a CC BY-ND case-by-case exception

Support for exceptions was stronger from AHSS stakeholders. As noted under the discussion of question 7 (p.46), some stakeholders thought it was important to allow an exception to make it easier to secure permissions to include third-party materials in articles. Those that disagreed tended to feel CC BY-ND should be offered as the norm rather than as an exception.

Some of those in support also felt CC BY-ND could be offered as a more frequent exception. They felt CC BY-ND could prevent research been misrepresented out of context and in particular protect against misuse in research on sensitive / controversial subjects, again mostly in AHSS disciplines.

... there are also legitimate concerns [with CC BY], mostly voiced by researchers in the humanities and social sciences. These concerns include examples provided by researchers in the arts and social sciences where, for example, the derivative work includes unauthorised translations the original author has no control over; adapting the work in ways not acceptable to the author; and misrepresenting the author's original meaning by changing the wording or context of the original. [HEI]

We have significant concerns about material being used in unpalatable ways – e.g. in medieval studies there is currently a real debate about the term Anglo-Saxon because Anglo-Saxon has been co-opted by the far right. Content could very easily be put into anthologies which the original publisher and author have no control over and which distort the meaning of their work. This is also a real concern in the social sciences. [Publisher]

In some cases consultees felt there may be a case for an ND licence on particularly sensitive context relevant sections of an article; others felt that it should apply to the whole article. In one example, one consultee explained their view that requiring publication under CC BY may affect the willingness for individuals to provide open testimony if that led to no restrictions on the

subsequent use of their evidence. In this case, the consultee felt the no derivatives license would better address concerns from interviewees.

And where a publication uses orally-gathered material – some of which is of great ethical sensitivity, for example first-person accounts by people with mental health issues, survivors of trauma, or refugees – there would be a risk of changes to their testimony which would go far beyond ethical guidelines. [Learned society with in-house publishing arm]

Some consultees across all stakeholder groups felt that dealing with exceptions and the risk of misuse would lead to extra workload through managing and administering exceptions. The extra administration cited included adjudication processes to agree or refute the need for an exception and the maintenance of author's choice in their publication route. Some of these consultees suggested that CC BY-ND could be a default because they felt that would remove most of the need for exceptions. These responses were in general favour of simplifying the system. Others felt that any additional administration would either be limited, or would be a necessary burden in order to better protect authors from their research being misused. Again, there was no particular difference in these views between stakeholder groups.

Conversely, others suggested that there should be a variety of permissible licenses and that authors should be allowed to choose the appropriate license for their work. As per question 7, the "author choice" argument was strong amongst representatives of publishers and learned societies and several based their views on choices authors currently make regarding licensing preferences.

CCBYND is not a commonly used licence within the [subject] community. Allowing CCBYND would be helpful to allay researchers' concerns around others misinterpreting and therefore misrepresenting their work – as well as researchers' reputations, it is also the reputation of UK research at stake. However, it is not clear how a case-by-case exception would work in practice and it is vital to ensure the process does not become onerous for researchers or institutions. We allow authors to choose between CCBY and CCBYNC when publishing OA with us and this has been the case since 2013. ... the majority of authors utilise [CC BY-NC] (73% of authors who publish in our full OA journals, and 51% of authors publishing OA in our hybrid journals) and this proportion has increased in recent years. [Learned society with in-house publishing arm]

A few consultees were unconvinced that more restrictive licenses such as CC BY-ND would mitigate misuse of research outputs. They said that copyright law already offers such protection. However, a concern raised by these consultees was the amount of time that they felt would be required to ensure compliance for non-experts. If the onus of dealing with exceptions fell on authors/institutions/publishers, then it was suggested clear guidance and support would be required.



Whilst there are clear advantages to the harmonisation of licensing terms including broader access and reuse applications where current concerns exist, for instance humanities researchers wishing to adopt non derivative licences, it might be advisable to allow case-by-case exceptions, subject to continuing regular review of the exception, in order to achieve policy acceptability and compliance momentum. As reported in Van Noorden (2015), 68% of Nature authors selected the more restrictive Creative Commons CC-BY-NC-ND Licence. This along with the RoMEO studies and our analysis of publisher agreements suggest that without clear guidance authors are likely to select licences contrary to funders' broader policy objectives. Experience of institutional advocacy over the last 15 years has shown that centralised, funder-originated messages have far greater power than locally sourced messages for change. It is also unclear whether individual concerns relate to moral rights and copyright and the enforcement of breaches or whether concerns relate to the specific uses permitted under the CC-BY licence but restricted by CC-BY-ND including translations. If an exception is introduced it would be useful to better

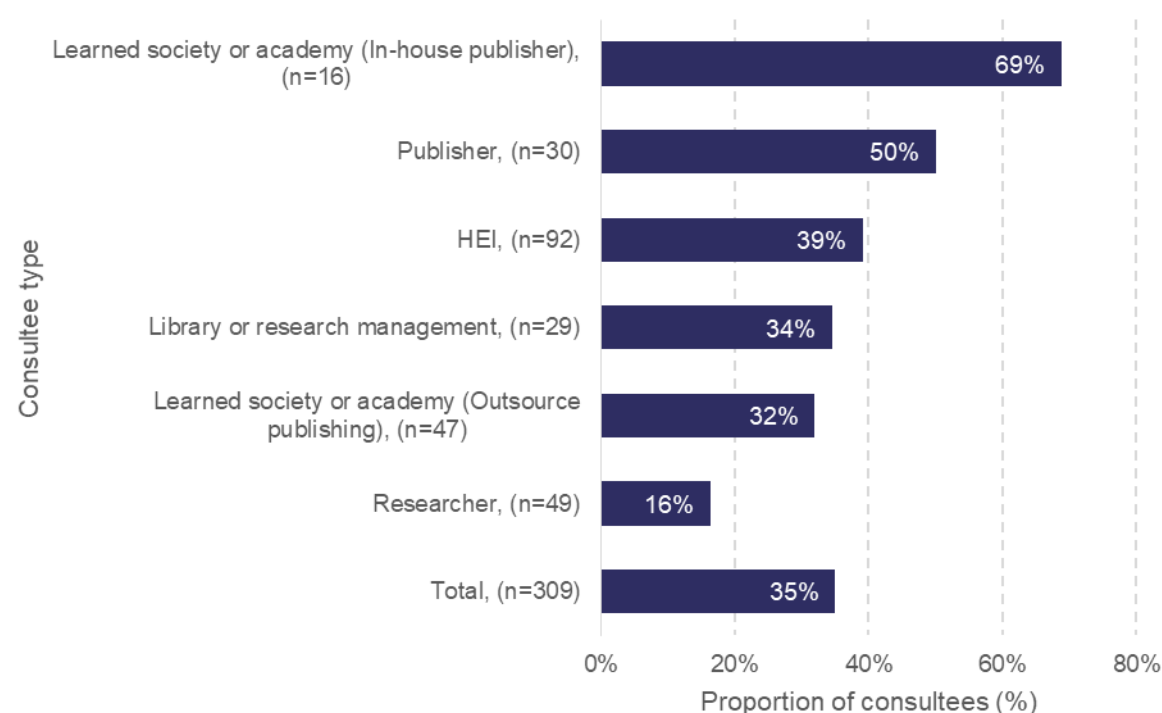
understand researcher attitudes through a large-scale study as well as providing information to authors on how copyright law, on top of which the CC system is built allows for remedial action to be taken. [Provider of scholarly communication infrastructure or service]

Whether the proposed requirements would affect the ability to include third-party content in articles

Question 9⁴⁰ of the consultation asked whether *the proposed licensing requirements for UKRI's OA policy, which exclude third-party content, affect your or your organisation's ability to publish in-scope research articles containing third-party content?* UKRI's consultation document outlined to consultees that proposed licensing requirements would not apply to third party content in articles and that such content could be included under a more restrictive licence.

Nearly nine in ten (88%) answered this question. Figure 12 shows that just over a third (35%) of all consultees answering said the proposed requirements would affect their organisations ability to publish articles with third party content. Publishers (50%) and learned societies that published in-house (69%) were more likely to say they would be affected. A little over three in ten (31%) felt their publishing would be unaffected by including third party content. In the case of consultees operating solely in STM / STEM disciplines, this rose to 43%.

Figure 12: Where proposed licensing requirements may affect an organisations ability to publish articles containing third-party content by consultee type



Source: Consultee responses, March to June 2020

⁴⁰ Question 9: Would the proposed licensing requirements for UKRI's OA policy, which exclude third-party content (see paragraph 55 of the consultation document), affect your or your organisation's ability to publish in-scope research articles containing third-party content?

Views on why the proposed licencing requirements would not affect publication of articles containing third party content

Some HEI representatives felt that mechanisms already existed to protect third parties where their material is used within in-scope articles. The mechanisms cited included redaction, reducing image resolution / quality or removing content entirely. Some of these consultees also wanted UKRI to influence third party content rights holders to offer "more liberal online rights for academic purposes".

Several consultees (again, mostly representatives of HEIs) also suggested that the onus for appropriate reuse sat with the user of the research output not the author. These consultees believed that the original copyright terms still held when third-party material was included in new publication and hence there would be no effect on the third-party rights holder. Some also noted UK copyright exceptions were also a mechanism to enable researchers to legitimately use third party materials in some outputs. However, a few other HEI representatives said that where authors seek permission to use others' content, then publication should not be affected because the rights associated with the material used are transferred into the new published article. A couple of consultees representing libraries suggested that training was necessary for researchers to help them understand what their current obligations were regarding reuse and subsequent publication.

Publishing third-party content is allowable under the existing UK exception to copyright e.g. 'non-commercial research'. Any third party content which is not licensed under CC BY must be clearly indicated. The onus is then on any party who reuses that content in future i.e. the use must be under an exception, or with another type of permission. [HEI]

We advocate responsible copyright exceptions using quotation exception Section 30, Copyright, Designs & Patents Act 1988 & other permitted acts. We advised researchers/editors of [HEI] OA journals they can make fair use of 3rd party copyright material, to attribute creators of 3rd party work & include statements confirming works are not subject to CC licence covering rest of output. Where output relies on 3rd party copyright (e.g. images) researchers face challenges as publishers often place clearing 3rd party rights/securing rights clearance funds on PI. Different rights holders' views on permissions/costs mean some permissions are freely granted & others charged excessively due to perpetual online availability of their work. These legacy permission practices, based on print publishing, do not reflect changes in scholarly communication & copyright law. It leads to some areas of scholarship not being pursued due to complex rights issues. UKRI should provide clear author/publisher guidance on 3rd party content permissions, how to relate to CC licences. It should standardise how to credit content/clarify attached licence conditions & advocate for fullest extent of fair dealing under copyright law where images, quotations & other material will be included in CC BY licensed outputs⁴¹ [HEI]

Views as to why the proposed licencing requirements would affect publication of articles containing third party content

In open responses many consultees cited potential problems for AHSS articles because of their greater reliance on third party materials compared to STEM articles. These consultees said that AHSS publications often relied on third party material to make central arguments in the research and hence actions like redacting would result in losing a key element of narrative or analysis.

As also raised under question 7, some consultees raised concerns that their ability to publish could be impacted as copyright holders of third-party materials can be resistant to allowing their inclusion within OA online publications. Some felt that disseminating an openly licenced article could be difficult or impossible without violating the copyright of third-party material it contains.

⁴¹ Respondent gave the following link <https://cmsimpact.org/resources/codes/>

Consultee responses showed that the current cost and fee arrangements for third party materials were complex and these concerns influenced responses given to this question. Third party costs is an area where a number of specific examples were given to illustrate the concerns of consultees regarding the *potential* impact of moves towards OA. Consultees outlined associated costs as including third-party material in output including the fees copyright holders may charge to use output, differentials in cost based on the type of content (print, online, data, etc.) and costs associated with the administration and sourcing of permission to include content.

Rights are often arranged after acceptance, so permissions/license may be unknown at point of acceptance. Particularly tricky to deal with image rights for multi-authored works or where responsibility lands with an academic editor. Costs for image reproduction include research, photography, manipulation and storage, copyright fees and administrative resource. UKRI should address the cost/restrictions likely to be imposed by image rights-holders. A CCBY article acts as a 'carrier' for images which are integral to the text, but on sharing a user would have to remove any images not available for reuse, effectively changing the content/aims of the work. Excluding third party content from the licence won't get around the issues for end users trying to share or redistribute articles. [Library]

The UKRI policy specifically states that third-party materials which are subject to a more restrictive licence can be included in OA articles. However, several consultees referenced current arrangements where variable costs are charged by third parties for online and print articles and time limits applied to permission for use. They also noted the challenges involved in gaining permission, and they were concerned that all these issues could apply to OA articles.

Through our experience, we know that seeking permission from third parties for an Open Access publication adds complexity, delay and usually increased cost to the permissions process. Third party licensees often do not understand Open Access or are very wary of it. Even if 3rd party content was included in the article, but excluded from the license, publishers would still need to inform the owners of 3rd party content that their material is included in the article but excluded from the license. If included under a more restrictive licence, having different licenses within an article would be challenging for publishers and readers to monitor. Some third parties have only given permission for a limited period of time (e.g. five years) which further increases administrative complexity and burden. [Publisher]

Some consultees reflected on the perspectives of third-party rights holders. These consultees felt third parties may not allow publication in a CC BY article and instead prefer a more restrictive license and/or apply some charge for using their intellectual property (IP). A few consultees also noted some wider ethical, cultural or sensitivity considerations which may affect the decision-making of third parties regarding open access issues.

Many major cultural organisations do recognise the public benefit of allowing free non-commercial use of images up to a particular image resolution, and many allow the publication of such images in open accessible publications and datasets. However, they would require a CC BY NC SA license, rather than a CC BY license. There are good reasons why cultural organisations (many UKRI recognized Independent Research Organisations) wish to control the use of their intellectual property. This is to cover the costs of providing images to researchers, as well as raising revenue to support the costs of running these organisations. This proposal could mean image libraries will restrict the use of their images in academic publications to protect image rights. In addition, some images and materials may be sensitive, such as images of brutality, death or particular culturally sensitive objects. It would be inappropriate to circulate such material under a CC BY license. [Other Research Organisation]

Other considerations regarding licensing for in-scope research articles

Around seventeen in twenty (87%) provided a closed response to question 10 and, of this group, two in five (42%) said there were *other considerations UKRI should take into account regarding licensing requirements for research articles in-scope of its proposed OA policy*⁴². Representatives of HEIs (60%) and publishers (57%) were most likely to raise "other" considerations.

However, many of these response reiterated comments made under more specific earlier questions so only novel observations or clarifying text on earlier points are presented herein.

Clarity and guidance of licensing arrangements

A range of consultees further highlighted the complexity of licensing and lack of understanding about this as a challenge. Such comments suggest further guidance and / or reassurance on the policy, exceptions and licensing types could be provided to address misconceptions and perceived lack of understanding about licensing. Several suggestions for researcher guidance and/or training to support understanding and application of licences were made.

Licensing is confusing for authors and there remain significant misconceptions regarding the protection they provide to authors' moral rights. Whilst institutions work hard to educate authors, the reality is that authors tend to look to their funder for guidance, over their HEI. HEIs also have limited avenues and resource for reaching this audience. The provision of clear, plain English guidance from UKRI about what CC licences allow/ disallow, alongside the benefits and risks would significantly help institutions in providing that education. [HEI]

A related suggestion made by many of HEI representatives was to make licensing requirements known to researchers at the grant award stage⁴³. This would mean that researchers clearly understand their licensing obligations from the outset.

Around a dozen consultees commented on current and potential inconsistencies in licensing requirements across different funders, publishers and research organisations. A few HEI and learned society representatives were unclear how UKRI's proposed licensing requirements would affect the viability of international collaborations, especially where OA policies between countries differ. One of the library representatives suggested harmonisation with Plan S would address such problems (at least for European collaborations).

A couple of learned societies suggested inconsistencies in UKRI seeking greater OA while the Department for Culture, Media and Sports' has a policy which, they say, seeks to maximise commercial exploitation of museum and art collections that are often used in research. They felt this was incompatible with CC BY licensing.

Licence design

One perceived benefit of the Creative Commons licensing approach identified by consultees is the design it adopts (described as operating on three-layers by Creative Commons⁴⁴). Several consultees felt this design helpfully provides the legal code in human-readable and machine-

⁴² Question 10: Are there other considerations UKRI should take into account regarding licensing requirements for research articles in-scope of its proposed OA policy?

⁴³ Responses here include several identical cut and paste responses suggesting licences should be "prominent and explicit" at the grant award stage.

⁴⁴ <https://creativecommons.org/licenses/>

(CC) public copyright licenses incorporate a unique and innovative "three-layer" design. Each license begins as a traditional legal tool, in the kind of language and text formats that most lawyers know and love.

readable layers. These layers were said to provide a multiuse function for licenses allowing them to perform multiple functions such as text mining and automated search tags (which improve discoverability). A number of consultees across all respondent types noted the value of this structural design to improve the "discoverability" and access to articles through a set of common rules and structures. As more elements of the publishing and archiving ecosystem use the same system, so their perceived inter-operability improves. There is a wider discussion on these points in the chapter covering standards (Section 3.4)

Monitoring and applying OA policy

A few consultees commented on monitoring licences applied to articles in-scope of UKRI's OA policy. They asked who would be responsible for monitoring [Researcher] or policing exceptions [HEI].

Some consultees also identified technical difficulties due to versions of articles lacking machine-readable licences/metadata wider compliance issues are covered in Section 3.9.).

... monitoring license use can be even more difficult than monitoring other aspects of OA policy compliance, in particular when articles are not accompanied by a machine-readable licence. This can occur, for example, when compliance is achieved through journal publishing only, or through deposition of PDFs/Word documents in a repository... without deposition of the appropriate metadata in either Crossref or the repository itself. This furthers the case for requesting that all research articles be deposited in a repository that has the infrastructure to hold license metadata such as Europe PMC – thus making compliance monitoring easier, while making the articles easier to access. [Research Institute]

Further views on CC BY-NC

A few consultees noted benefits and drawbacks with CC BY-NC licences. A few HEI representatives and one business consultee argued against CC BY-NC as they felt this licence could hinder innovation arising from research outputs and threaten HEI – commercial collaborations. The lack of free movement in knowledge was the limiting factor, limiting potential returns and hence likely commercial interest. However, a few other consultees representing HEIs and learned societies were more supportive as they felt the NC licence helped HEIs generate income that could be reinvested into research. They also felt NC could offer some protection from "commercial exploitation" of research conducted by others not approved by the copyright holder.

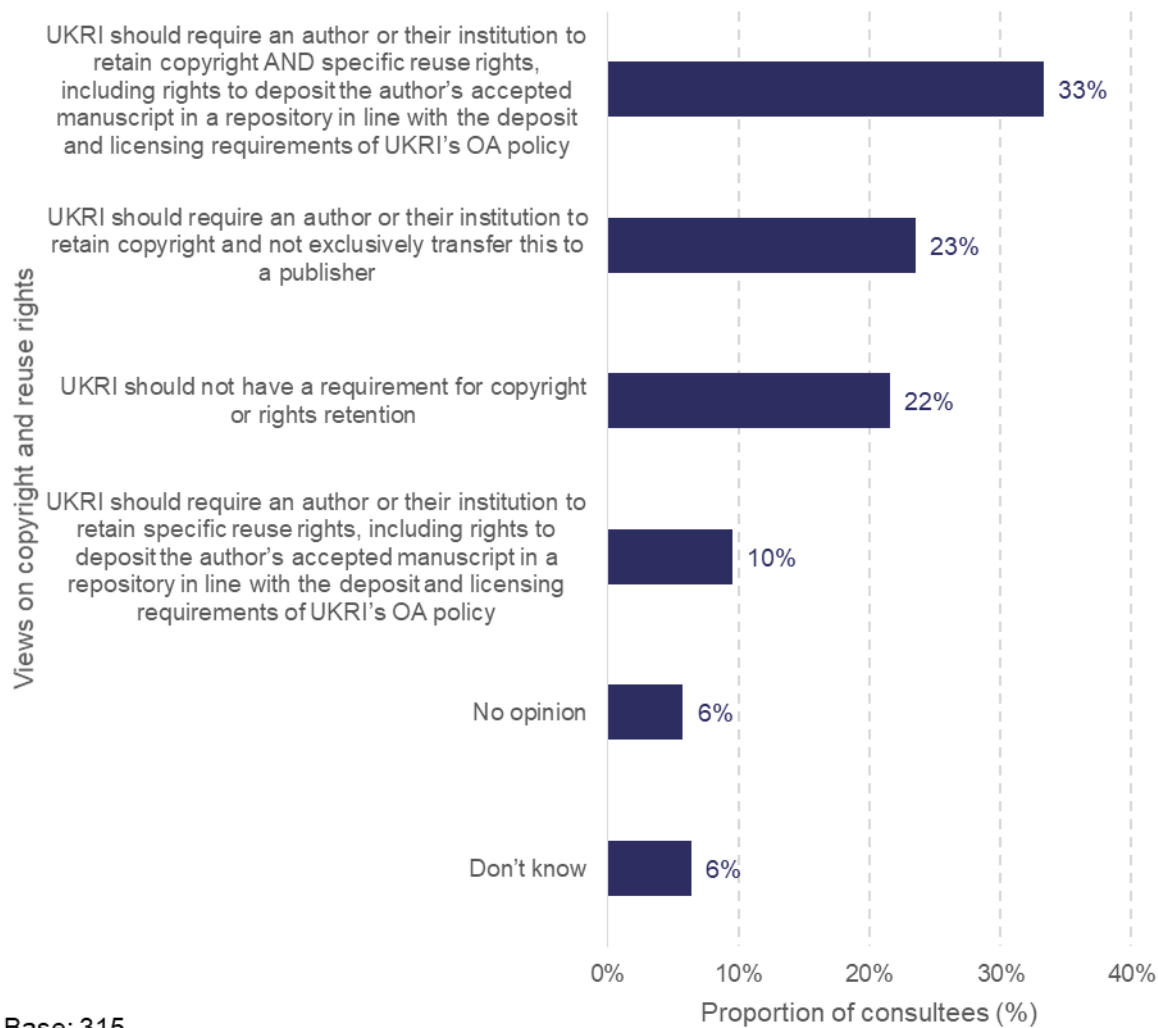
Whether UKRI's OA policy should require copyright and/or rights retention for in-scope research articles

The consultation asked stakeholders which from four statements best represented their views *on whether UKRI's OA policy should require copyright and/or rights retention for in-scope research articles*⁴⁵? This was presented as an open consideration in UKRI's consultation. Nine in ten (90%) of consultees gave a view and Figure 13 illustrates overall preferences.

⁴⁵ Question 12: Which statement best reflects your views on whether UKRI's OA policy should require copyright and/or rights retention for in-scope research articles?

The open question also provided the following direction: UKRI particularly welcomes views as to whether it is necessary to require copyright and/or rights retention if its policy were to require a CC BY licence, which enables reuse. If you selected answer b or c, please state what reuse rights you think UKRI's OA policy should require to be retained

Figure 13: Consultees views on a requirement for copyright and/or rights retention



Base: 315

Source: Consultee responses, March to June 2020

Collectively, 66% of answering consultees indicated UKRI should require copyright and/or rights retention. Twenty-two per cent said UKRI's policy should have no copyright or rights retention requirement.

Table 5 (overleaf) shows most consultees except those representing publishers and learned societies with an in-house publishing arm supported one of the three options where authors or institutions retained copyright and / or reuse rights. A third (34%) of learned societies which outsource publishing chose the "copyright only" option⁴⁶. The majority of HEI (58%) and half (50%) of library representatives wanted authors or institutions to retain copyright and reuse rights. The HEI Logit model also shows HEI consultees had higher odds than others to select this option.

⁴⁶ That UKRI should require an author or their institution to retain copyright and not exclusively transfer this to a publisher

Table 5: Views on copyright and rights retention statements by respondent type

Statement on UKRI requirement		HEI	Researcher	Learned society or academy (Outsource publishing)	Publisher	Library or research management	Learned society or academy (In-house publisher)	Total (including other respondent types)
UKRI should require an author or their institution to retain copyright and not exclusively transfer this to a publisher	n	17	9	16	6	9	3	74
	%	18%	18%	34%	20%	30%	19%	23%
UKRI should require an author or their institution to retain specific reuse rights, including rights to deposit the author's accepted manuscript in a repository in line with the deposit and licensing requirements of UKRI's OA policy	n	9	8	2	2	1	2	30
	%	10%	16%	4%	7%	3%	13%	10%
UKRI should require an author or their institution to retain copyright AND specific reuse rights, including rights to deposit the author's accepted manuscript in a repository in line with the deposit and licensing requirements of UKRI's OA policy	n	54	14	4	3	15	1	105
	%	58%	28%	9%	10%	50%	6%	33%
UKRI should not have a requirement for copyright or rights retention	n	5	11	17	17	1	9	68
	%	5%	22%	36%	57%	3%	56%	22%
Don't know / no opinion	n	8	8	8	2	4	1	38
	%	9%	16%	17%	7%	13%	6%	12%
All answering consultees	n	93	50	47	30	30	16	315
	%	30%	16%	15%	10%	10%	5%	100%

Requiring retention of copyright *and* re-use rights

Amongst those who support the retention of copyright and re-use rights, it was highlighted that even if copyright was retained it is possible a publisher might be granted exclusive re-use rights. Therefore, they said it was necessary to require retaining copyright and re-use rights, and only grant necessary publishing and/or non-exclusive rights to the publisher.

Consultees defined reuse in a number of ways. The most frequently mentioned were the use of research in teaching and to support, underpin or guide other research. HEIs and libraries also mentioned the right for deposit and reuse within organisational repositories and administrative purposes such as REF submissions. Other, less common reuse activities included rights to translate research into other languages and reuse for commercial purposes.

Possible uses/reuses: use in classroom, translating, reuse in workshops and/or reports, deposit in repositories, both institutional and subject, text and data mining. [Provider of communication / infrastructure service]

There was general dissatisfaction from HEIs with the practice of transferring copyright over to publishers. Many felt that copyright should be retained by the author or their institution; a number specifically advocated the end of copyright transfer to publishers. The reasons for this view given were: that authors should hold copyright for their own work; that retaining copyright would improve access to research; and that commercial copyright should not be held on research outputs that were publicly funded.

Around a dozen HEIs also connected retaining copyright and re-use rights with facilitating OA via the green route and compliance with UKRI's proposed requirements. These consultees argued that gold OA would be the only viable option where copyright / re-use rights were not retained. One HEI consultee said that "If UKRI wish the accepted manuscript to be shared without embargo and under a CC BY license, then it follows that the author would need to retain certain rights over the work to achieve this. Retaining copyright ensures that authors and institutions will always be able to meet other re-use requirements."

Several HEIs and a few library representatives also referenced the UK Scholarly Communications License (UKSCL) model policy. In the words of one library representative, adopting UKSCL "would be able to meet UKRI's proposed policy quite easily regardless of journal choice, and may ease the process for various stakeholders in the publishing process where it is adopted by institution."

Some consultees highlighted the need for policy alignment to be ensured, for example with institutional IP policies and funder initiatives such as Plan S to make policy implementation easier for all stakeholders. Some other views expressed were that UKRI should support and engage with stakeholders to facilitate copyright retention. Also, that any requirement should be placed on publishers rather than research organisations and authors.

Researchers still believe they retain copyright of their AAM as well as their published version & it is hard to explain that once they have signed a copyright transfer agreement (CTA) they lose copyright (but that they/institutions retain IP). UKRI needs to support institutions in the advocacy work required to change researcher behaviour. UKRI should also work with publishers to review the use of CTAs. [HEI]

This is a very complex area. Authors or their institution should retain copyright and reuse rights, and publishers should not expect them to give away these rights. However, university intellectual property policies are internal policies which UKRI should not try to amend unilaterally; this would restrict institutional autonomy ... Rather than requiring institutions to have a specific intellectual property policy - which at some institutions may be directly incorporated into the text of employment contracts - it would be preferable to put the requirement on publishers. In other words, any journal that requires authors to

assign copyright to the publisher would not be compliant with the new UKRI policy. Only journals that allow authors/institutions to retain their rights would be compliant journals. This approach would leave institutional autonomy alone, but force publishers to change their practices. So we propose an additional option: g. the copyright of in scope outputs must not be transferred to the publisher. [HEI]

Requiring retaining copyright only

The desire from many HEI representatives to require retaining copyright was based on the same reasons noted above. The core benefit stated by many of the HEI representatives of restricting any requirement to retaining copyright was the relative simplicity of the approach, with is being easier to describe and understand. For some, the addition of requiring specific reuse rights also was viewed as further complicating a policy area in which there was already some general misunderstandings.

Most representatives of learned societies advocating this option (who nearly all outsourced publishing) noted that granting publishing rights is sufficient and transferring copyright is not necessary. All four publishers that selected this option said this is how they currently operated with their authors. Some of those advocating authors' retention of copyright felt that it would force other publishers to follow suit.

Several consultees felt that a CC BY licence includes rights to reuse so the additional stipulation of specific reuse rights was redundant. A few consultees noted some publishers as authors to sign a copyright transfer agreements (CTA) which would be incompatible with CC BY. This would apply pressure on publishers to consider the use of CTAs.

In many cases it is not a transfer of copyright that takes place, but an exclusive license of all re-use rights, so the wording of the policy would need to be clear. If the policy were to require a CC BY licence, then the re-use rights required by the policy would be covered within those granted by such a licence. However, there would still be benefits in requiring that copyright is retained by the author, if only in that it would encourage the retention of moral and intellectual rights by authors across the sector, and granting journals a limited licence to publish. [Library / research management]

Requiring retaining certain re-use rights only

Thirty consultees thought that UKRI should require retention of certain re-use rights but not copyright and, of these, only eighteen provided any reasoning for their answer and even fewer any detailed explanation. Some were concerned that many publishers currently often require copyright to be transferred and authors may not be able to publish in these journals, unless publishers changed their policies accordingly. A couple of HEI representatives noted that copyright law was complex because of international differences in application and interpretation and related challenges in negotiating copyright.

Retention of copyright by institutions is complex, due to international researcher mobility and the variation of institutional intellectual property rights / copyright policies currently in place. A CC-BY requirement is an effective means to establish a uniform basis for open access and reuse, without the complexity of negotiating rights transfer between bodies. Where rights are retained there may be further considerations around the rights protection and liability. [HEI]

As per a few responses to other options, a couple of consultees felt requiring copyright was not required, when a CC BY licence is used, suggesting retaining re-use rights only.

Arguments against requiring copyright and/or rights retention

A small majority of publishers (57%) and learned societies with publishing arms (56%) said UKRI should not have a requirement for copyright or rights retention. More than a third (36%) of

representatives from learned societies which outsource publishing and one in five (22%) of researchers also felt this way.

Most publishers argued that the gold OA route already allows authors to retain copyright and utilise CC BY licences. A few publishers argued that it was appropriate for them to request copyright transferral under a green OA, given no payment of an APC and need to recoup their investment.

From a publishing perspective, where an APC is paid, publishers simply require a licence to publish, distribute and enforce rights to protect the article (and thereby the authors). This model enables the author to retain copyright, and publishers to advocate for gold as the best means of achieving full OA. With OA models that depend upon the subscription model (i.e. green OA, with the deposit of an AM in IRs or SRs), authors have the opportunity to assign copyright to allow publishers to be remunerated for their investment. [Publisher]

A number of publisher and learned society representatives said that CC BY licences enabled reuse of research, so further mandating on copyright and reuse rights by UKRI was, in their view, irrelevant. This was used as an argument for retaining the status quo with current arrangements.

Some representatives of publishers and learned societies said that they were better custodians of rights and public interest than authors. These publishers argued that their control over copyright better equipped them to protect authors' IP given their experience and expertise in copyright. Publishers could also operate collectively on behalf of all the authors they published, hence operating an economy of scale.

Publishers are experienced in policing end use of content, enforcing rights and requirements, and explaining the terms of the end user licenses, employing professionals familiar with copyright law and advocating on behalf of authors. They are also a sole point of contact and are often easier to find and contact, over the long term, by users and individuals with questions than authors are. [Learned society with in-house publishing arm]

3.3.2 Licensing requirements and third-party rights for monographs, book chapters and edited collections

Compared to the equivalent questions regarding articles, fewer consultees answered questions relating to licensing and third-party rights for long form outputs. At most, two-thirds of consultees responded to questions on licensing for long-form outputs compared to around nine-in-ten for the equivalent questions covering articles. The main implication for analysis is smaller sub-group base-sizes for comparative analysis by the consultee type. Although the consultation is not designed to provide a representative view from the sector, a lower response rate does limit comparative analysis by sub-group.

Overall, many of the arguments offered supporting or opposing licensing and re-use requirements differed little between the comparable questions posed for articles. The analysis of open responses therefore seeks to focus on any points of difference raised for long-form outputs (noting that the emphasis of some questions also differs in some cases).

Whether CC BY-ND should be the minimum licensing requirement for monographs, book chapters and edited collections

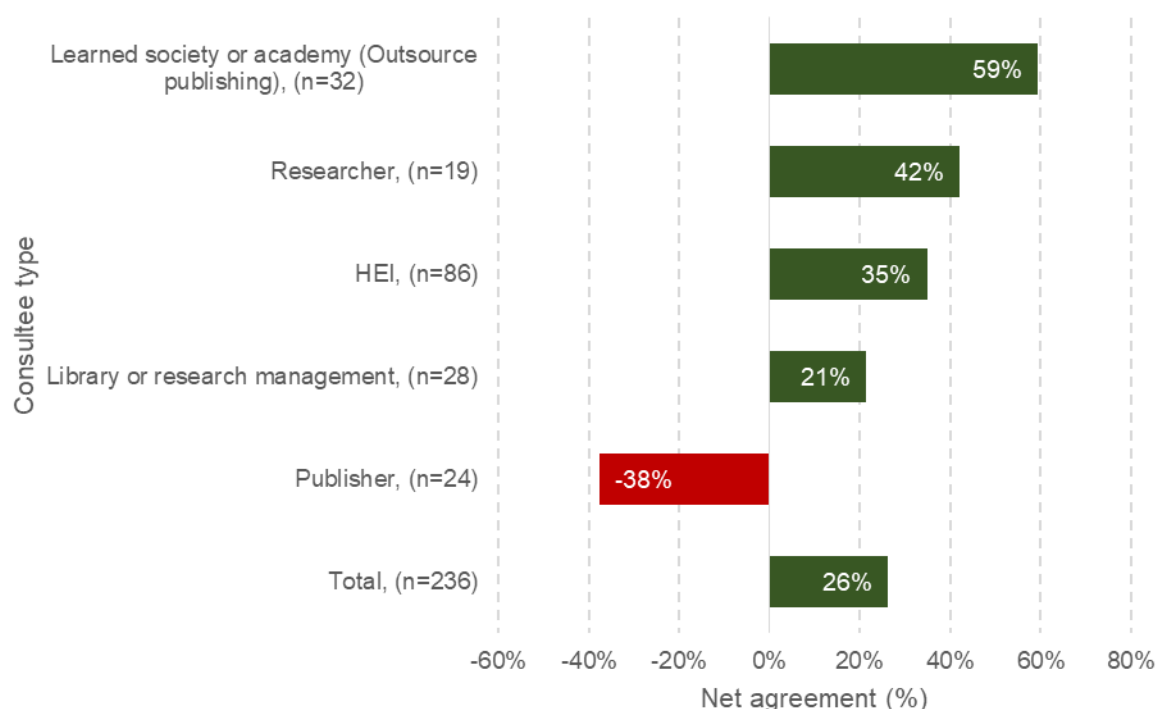
The suggested licensing requirement for long-form output is that CC BY-ND would be permissible as well as the preferred CC BY option. UKRI suggest the policy should permit CC BY-ND because of "concerns expressed by some AHSS stakeholders that CC BY may not sufficiently protect

content from being misrepresented or misused due to the nature of AHSS research, and that UKRI OA policies have not previously applied to monographs." (UKRI, 2020, p.30⁴⁷)

Two-thirds (67%) answered question 43 which asked consultees whether they agreed or disagreed with *CC BY-ND being the minimum licencing requirement for monographs, book chapters and edited collections in-scope of UKRI's proposed OA policy*⁴⁸. Around half (53%) of consultees answering this question agreed or strongly agreed. Two-thirds (66%) of learned societies were in agreement. A quarter (26%) disagreed or strongly disagreed with this proposition, especially publishers (66%).

Figure 14 shows net agreement⁴⁹ with the question by consultee type and illustrates the difference of opinion from consultees representing publisher compared to others.

Figure 14: Agreement with CC BY-ND being the minimum licencing requirement for monographs, book chapters and edited collections in-scope of UKRI's proposed OA policy by consultee type



Source: Consultee responses, March to June 2020

Those supporting the use of CC BY-ND (most consultee types except publishers) suggest this license offers the protections suggested by UKRI, or that it offers a compromise option for long-form outputs. Others also noted that the supported permissions for CC BY-ND for articles too as a preferred licensing requirement to address the same concerns of misuse and misrepresentation noted within UKRI's consultation document.

⁴⁷ UK Research and Innovation (2020) UKRI Open Access Review: Consultation. UKRI. Open access review microsite: <https://www.ukri.org/funding/information-for-award-holders/open-access/open-access-review/> Accessed 7th September 2020

⁴⁸ Question 43: To what extent do you agree or disagree with CC BY-ND being the minimum licencing requirement for monographs, book chapters and edited collections in-scope of UKRI's proposed OA policy?

⁴⁹ The total proportion who strongly disagreed and disagreed subtracted from total proportion who strongly agreed and agreed

A common concern expressed in response to this question was the potential misuse of published research, either by unethical academics or predatory publishers. Despite UKRI's policy of making CC BY-ND permissible, there were perceptions that this may still be insufficient to protect against misuse, e.g. by being quoted out of context. These concerns appeared more frequently amongst AHSS researchers, where it is more likely that texts were context-sensitive, or may relate to sensitive topics such as those on social issues and crime. Many of these consultees raised concerns that too liberal a license would allow fieldwork data and reporting to identify vulnerable voices, or provide ready access to challenging or sensitive material.

The CC BY-NC licence may be preferable as a minimum requirement as this may prevent cases of predatory publishers exploiting the more liberal licences, as occurred some years ago when freely available Wikipedia articles were repackaged for commercial sale as monographs. [HEI]

CC BY-NC(-ND) should be considered as well. At present, at least, print sales still contribute to the overall cost recovery, allowing publishers to take this revenue into account when determining the Open Access fee. But only if they have assurance that they will actually benefit from the print income; not some other publisher who comes by, scoops up the published PDF and starts selling print copies from it (in what will never be more than a very limited market). [Publisher]

A number of consultees referenced the length of time required to write longer-form outputs as a reason for wanting more restrictive licences than CC BY. In their view, the consequences of open distribution of outputs (loss of income, potential to misquote, incorrect attribution) were greater because more professional time was put into creating long-form outputs. This was the key reason for advocating CC BY-NC licenses from several consultees across all types of respondent because they felt this offered greater protection from commercial re-use of significant bodies of work.

Concerns also surfaced more frequently in relation to books and book chapters, specifically with those with multiple authors, where it may be more challenging to establish the correct license, particularly if authors are based in different countries. Whilst some would prefer a less restrictive licence, e.g. CC BY, others suggest that tighter CC licenses may be more appropriate to deal with these perceived risks, e.g. CC BY-NC or CC BY-NC-ND to protect against the perceived potential for poor publishing re-use practices.

However, some respondents (around a dozen HEIs) noted a preference for a CC BY license for monographs, book chapters and edited collections, because it was perceived to align with the ethos of the OA policy, and it offers a consistent approach with the proposed policy for journal articles. A few felt that the inclusion of ND was too restrictive for a truly OA policy, and should be considered a maximum and only with specific (sensitive) content. Several consultees representing HEIs and learned societies felt ND was too restrictive and suggested SA licences instead. These consultees also noted that CC BY-SA aligns with Plan S requirements.

[We] recognised ND as positive, but that NC might be required as well... The addition of the ND provision as a standard for monographs goes beyond the rights for authors in articles, and is certainly a step in the right direction for monographs. That said, a NC provision should also be allowable for books. Researchers spend sometimes more than a decade on a book, and it is inappropriate that a large part of a life's work might be reproduced for commercial purposes without author permission. Moreover, not allowing these protections to UK-based authors might make it difficult for them to negotiate contracts with top book publishers in our field, as publishers might have strong views about including the NC provision. [HEI]

Whether there should be exceptions from OA policy for in-scope long-form publications that use third-party material

Two-thirds (67%) of consultees responded to question 44: *To what extent do you agree or disagree that UKRI's OA policy should include an exception for in-scope monographs, book chapters and edited collections requiring significant reuse of third-party materials?*⁵⁰ Many more of these consultees agreed (70%) than disagreed (9%) with the proposition and there was no statistical variation in response between consultee capacity.

This proposed exception to the policy was supported for a number of reasons. Although the proposed policy for monographs differs to that for journal articles (specifically on the proposed exception for significant reuse of third-party materials), most of the concerns expressed by respondents mirrored those given for journal articles in response to questions 7 and 8 earlier (see section 3.3.1). Consultees also noted that:

- OA permissions can be difficult to obtain even under CC BY-NC-ND.
- AHSS discipline outputs can require a large volume of third-party material (and this can be even greater for long-form outputs).
- Original text without third-party material could still be made OA.
- Exceptions could not be granted where it is not possible or practical to amend third party copyright materials.

Long-form articles typically contain larger and more diverse content than articles. A few HEI consultees noted the potentially large impact on the issues above for long-form outputs because of the amount of content.

It can be very difficult to secure rights to publish third-party content. Books are likely to contain more such content than are articles due to the length and nature of these types of research projects. There can be lengthy negotiations to obtain permissions to reuse photos or archive material, and most books will include these from a variety of sources, further complicating the negotiations between material sources and publishers and authors. Requiring a CC BY (and not ND or NC) license would imply that much of that material would indeed need to be removed due to the free use stipulation. [HEI]

This seems sensible so that when there is the significant use of third-party materials and it is causing rights issues, the author is able to publish without being sanctioned by UKRI. UKRI should indicate how it expects this exception to be administered: would authors contact UKRI directly for permission, would research managers at organisations grant permission, or would authors make educated decisions for themselves? What kind of evidence might be required? Most publishers already require third-party materials to be cleared by an author. With proper copyright training for authors of monographs, there is no reason why this concern cannot be dealt with effectively (while accepting this may be a strain on copyright or scholarly communication librarians) [Library]

Amongst those offering comment, the most common response was concern about a variety of issues that this proposal could cause (even though most supported exceptions). Two of the main issues were cost and workload: Acquiring permissions to re-use third-party material can be complex, time-consuming and expensive. Another common request from consultees is the request for clarity on the definition of 'third-party materials' and 'significant re-use' (the latter is addressed specifically later).

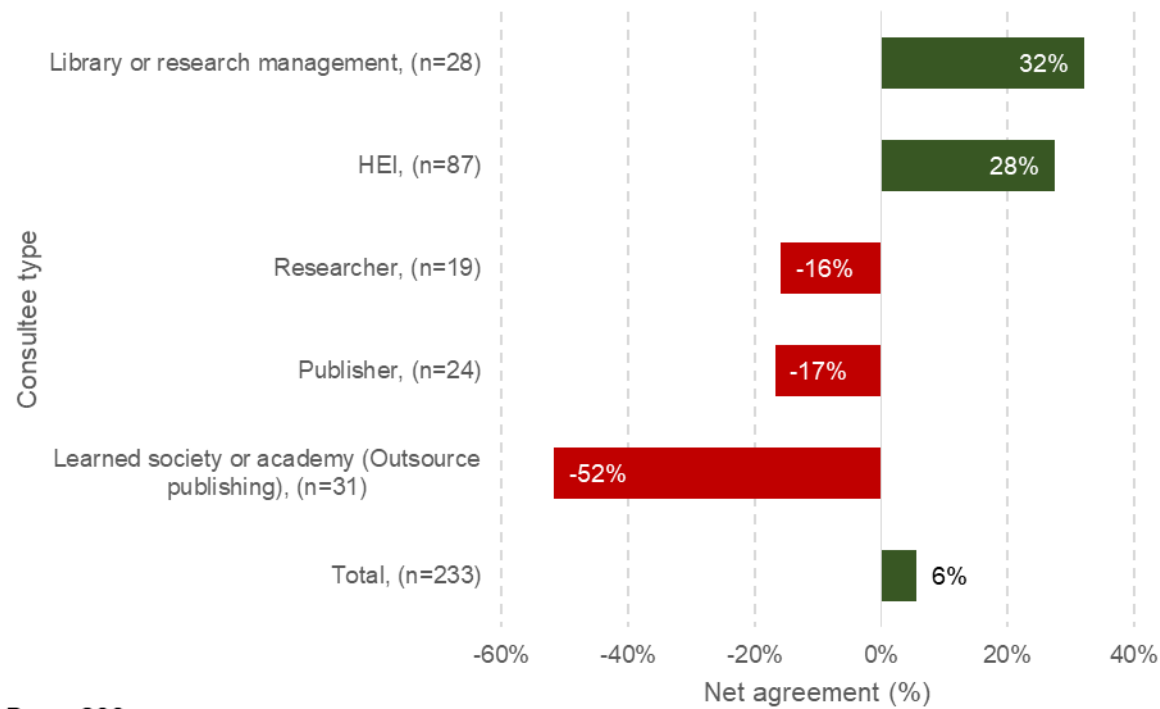
⁵⁰ Question 44: To what extent do you agree or disagree that UKRI's OA policy should include an exception for in-scope monographs, book chapters and edited collections requiring significant reuse of third-party materials?

Consultees from Arts, Humanities and Social Science disciplines were particularly in favour of exceptions in open responses, mainly because their research more often involved multiple authors, inter-disciplinary studies, and/or frequent use of different sources of third-party materials. In the case of multiple authors, exceptions were considered to help where research funding was different for each author. In the view of these consultees, this could lead to complex licensing arrangements where, for example, other authors' funding had OA restrictions attached, or came from international sources. The third-party materials cited included illustrations, maps, photographs, artworks, TV/film images, musical scores, poetry, and song lyrics. A related issue was that some third parties may either refuse to engage or raise their prices for re-use.

Whether redaction is suitable for images unavailable for re-use

As with the earlier long-form licensing questions, two thirds (67%) answered question 45: *To what extent do you agree or disagree that it would be appropriate to redact the image (or material), with a short description and a link to the original?*⁵¹ Two in five (40%) agreed with the proposition and a third (34%) disagreed. Figure 15 shows the net agreement⁵² by the capacity of the consultee response. Noting the small base sizes in some cases, the figure shows researchers and consultees representing learned societies which outsource publishing, publishers and researchers were less likely to agree compared to representatives from HEIs and libraries.

Figure 15: Net agreement from consultees on redacting images for reuse by consultee type



Source: Consultee responses, March to June 2020

⁵¹ Question 45: To what extent do you agree or disagree that if an image (or other material) were not available for reuse and no other image were suitable, it would be appropriate to redact the image (or material), with a short description and a link to the original?

⁵² Where net agreement is the total proportion who disagree or strongly disagree with a statement subtracted from the total who agree or strongly agree

Thoughts on the viability of redaction with replacement links / descriptive replacement were mixed. Those in agreement (more typically representatives of HEIs or libraries) said many UK universities already use redaction in publishing/archiving doctoral theses, and these consultees had no objection to the proposal. Many of those who agreed with the proposal recognised the same problems with redaction expressed by those who disagreed (see below). However, those in agreement accepted that redaction may be the only practicable way forward (“a workaround”, “better than nothing”). A related view amongst those who agreed was that redaction should be used only as a “last resort” after exhausting other possibilities, e.g. low-resolution images.

Overall, most consultees saw redaction as the only available solution, despite the risk of de-valuing the research output, but noted that redaction could potentially add to costs and workload where it was not already used. Redaction would allow the remaining material to be shared and that linking to images was already a common practice in some cases. A few said linking to the original published item could also potentially avoid permission costs and administration.

Those who disagreed (more typically publishers and especially learned societies which outsource publishing) made several criticisms of redaction and linking. One frequently cited concern (even for some agreeing with the proposition) was the impact, quality or value of work could be diluted, even rendered useless in cases where images or material were central to the research.

While this could potentially allow for the rest of the work to be made OA, we have a considerable concern that in some cases this could compromise the work, particularly in Arts and Humanities fields where works may be heavily illustrated. We are also concerned that the workload to ensure that all affected images are removed from green OA copies in repositories would be onerous. It would be preferable to allow an exception to the policy for works which rely heavily on copyrighted materials that are not available for OA reuse. [HEI]

The redaction of an image or other unavailable material and its replacement by a ‘tombstone’ is a highly undesirable approach. Particularly in art history and in the study of 20th-century music and literature, the argument in any book or chapter would be meaningless without the images or texts reproduced alongside. [Learned society with in-house publishing arm]

Several consultees said that not all images can be linked within long-form outputs and examples given included inaccessible international pieces and physical images in a closed collection.

These issues are felt most keenly in AHSS disciplines, specifically in disciplines including art & design, art history, literature, music studies and geography, where the use of copyrighted images is prevalent, e.g. artistic images and maps.

Another problem identified was inaccessibility of original material to readers, or what happens as a result of changes to accessibility, e.g. subsequent broken links. This issue potentially affects accessibility and sustainability of OA, and risks undermining the wider aims. This view was articulated by consultees representing libraries, for example:

This would be a suitable approach-of-last-resort and would be preferable to excluding the work entirely from being made openly available. However, this approach would likely present challenges to (1) the long-term preservation of the OA version of the work and (2) the medium-term making available of the OA version of the work. Under this approach, third-party content would sit outwith the work itself. Therefore, links to the material would need to be maintained. It is likely that with time third-party content will cease to be available or will change, or links to resources will break. This approach may also make it necessary for institutions that undertake long-term preservation of works, such as the National Library, to capture and preserve external third-party content, which would likely have resource implications. [Library]

A few consultees who disagreed with the proposal suggested that there is no issue because permissions can be sought and gained from third party rights owners, but other responses suggested that this is not always possible (e.g., permission may be refused, or it may be prohibitively costly).

Across all consultee types, a frequent question that arose was who would be responsible for redacting. Those who agreed with redaction still suggested the process would be burdensome, time-consuming and/or expensive for whoever was responsible.

Defining "significant use of third-party materials"

Nearly two-thirds (64%) of consultees responded to question 46: *Do you have a view on how UKRI should define "significant use of third-party materials" if it includes a relevant exception in its policy*⁵³. Nearly half (46%) of those answering said they had a view, with representatives from publishers (65%) most likely to say so. However, most did not provide a concrete open answer. Of those consultees that explained their answer, many felt a clear and unambiguous definition of "third-party materials" is needed, but they noted that this may be difficult to define. Those making these comments said the definition needs to be broad enough to cover all relevant situations whilst clear enough to avoid the need for further clarification, and simple enough to avoid burdensome work to establish, e.g. having to count things or having to refer back to funders or rights-holders.

Many consultees noted that 'significant use' has a quantitative (measures of the frequency and volume of use) and qualitative (the size of contribution made towards a central argument / idea) meaning. Many proposed some kind of proportional threshold. The suggested threshold proposed by consultees varied a lot. For example, nine of HEI and library respondents suggested the 'fair dealing' copyright principle⁵⁴ (some cited a 10% figure for acceptable use) whereas one learned society that outsourced published noted that "80% of the word count [of outputs] would be reproductions from archival sources". A minority proposed a more nuanced and subjective approach. One consultee proposed using RCUK's approach to defining the significance of material to research in decisions about UKRI block grant funding.

One parallel could be drawn from the current RCUK policy regarding access to the UKRI block grant when using UKRI-funded equipment and materials, where we currently ask researchers for a statement to clarify the significance of the material to their research. This could be used in conjunction with a more quantitative measure. [HEI]

Others suggest that 'significance' should refer to material within research or a publication, including material that is substantial or integral to a core finding or premise, as opposed to decorative. Similarly, there were suggestions that any material included in a publication should fall within the definition by default (i.e., if it is worth including in a publication, then that means it is significant).

Although it was deemed likely that a quantitative approach could more easily meet the demand for a clear and universal definition, this may not satisfy the opposing need for exceptions or variations across disciplines.

Several consultees made reference to copyright legislation. Some pointed out that a definition of significant use could be difficult and perhaps even unwise as copyright legislation does not specify an amount. Others argued that the definition should align with copyright rules in order to avoid infringement. A small cluster of responses that used the same wording said that the term

⁵³ Question 46: Do you have a view on how UKRI should define 'significant use of third-party materials' if it includes a relevant exception in its policy?

⁵⁴ One consultee referenced gov.uk guidance: <https://www.gov.uk/guidance/exceptions-to-copyright#fair-dealing>

‘significant use’ should be avoided because it conflicts with the definition of ‘substantial part’ that is used to determine copyright infringement.

There was little consensus on the form such a definition should take. Some consultees suggested it should be based on consultation with a representative selection of relevant parties (perhaps a challenge given the range of views herein); some said it should be left to authors to decide, yet others suggested that the onus should be on UKRI. Whilst some argued that a clear threshold was required that avoided the need for exemptions, others said there should be room for interpretation and exceptions. One common theme expressed is that the process of defining should not increase costs or administrative burden.

Any other comments relating to licensing requirements and/or the use of third-party materials⁵⁵

One in five (19%) of all consultees provided an additional comment at question 47 regarding licensing requirement and / or the use of third-party materials. Many of the responses to this question repeated points made earlier (in Sections A and B of the questionnaire). Consultees re-emphasised:

- support for the licensing options they felt better represented their position, or the principles of open access, or other open access policies such as Plan S
- the importance of author's retaining academic choice and freedom to choose the licensing option they wanted, and hence the licensing option that best fit their needs
- concerns about the perceived access of OA licenses on the cost of conducting and publishing research outputs

A number of consultees asked for further clarity or guidance on UKRI's proposed policies in relation to the concerns they held.

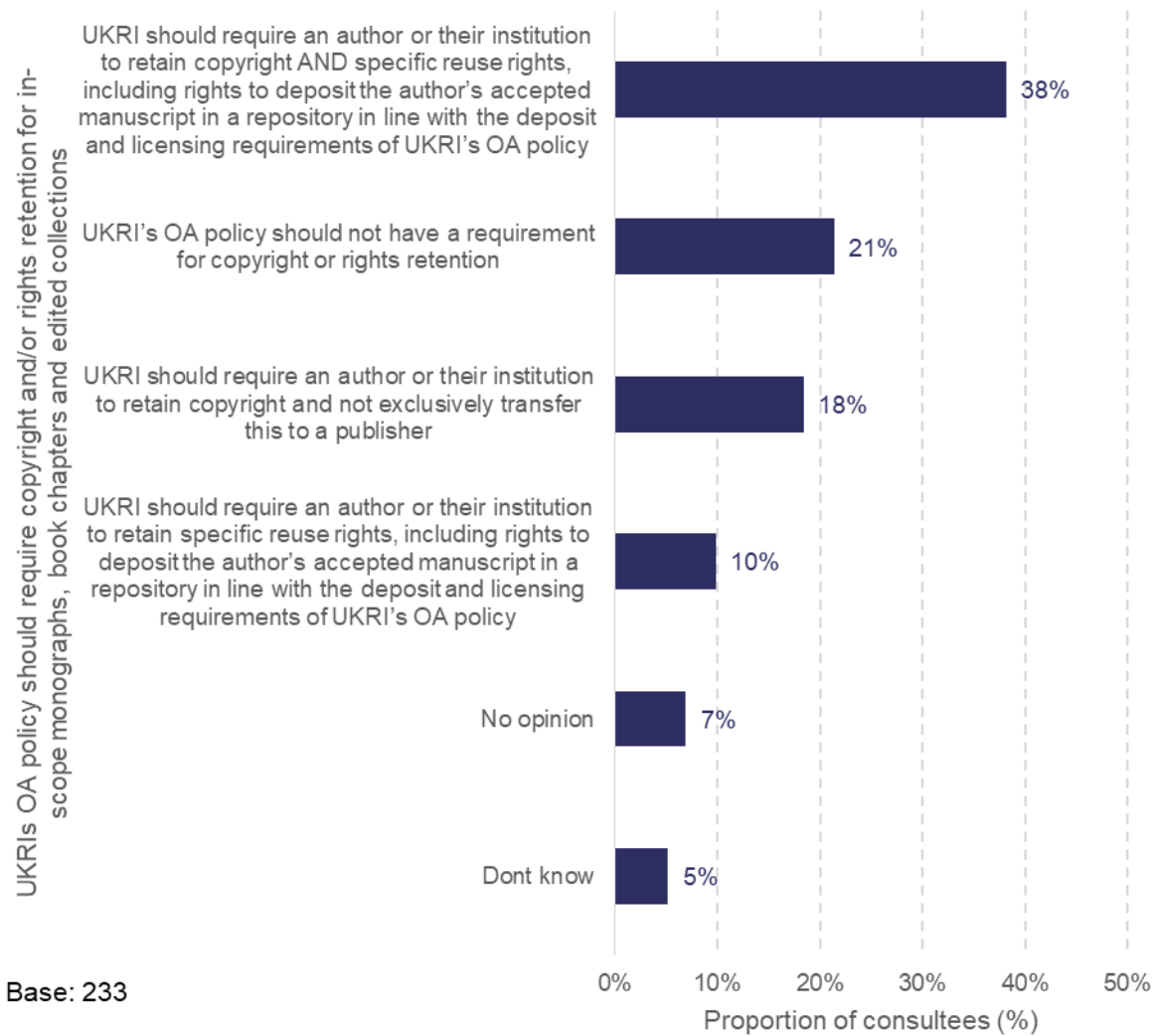
Whether UKRI's OA policy should require copyright and/or rights retention

As with the equivalent question regarding articles (see Figure 13), the strongest level of agreement with question 49⁵⁶ was *for author or their institution to retain copyright AND specific reuse rights, including rights to deposit the author's accepted manuscript in a repository* (Figure 16).

⁵⁵ Question 47: Do you have any other comments relating to licensing requirements and/or the use of third-party materials, in relation to UKRI's proposed OA policy for academic monographs, book chapters and edited collections?

⁵⁶ Question 49: Which statement best reflects your views on whether UKRI's OA policy should require copyright and/or rights retention for in-scope monographs, book chapters and edited collections?

Figure 16: Consultees' views on statements about copyright and rights retention



Source: Consultee responses, March to June 2020

Table 6 shows retaining copyright and reuse rights was the predominant view from HEI consultees (60% selected this option). Seven in ten (70%) of consultees representing publishers said *UKRI's OA policy should not have a requirement for copyright or rights retention*. Consultees representing learned societies were also more likely than all to say there should be no requirement (38%).

Table 6: Views on copyright and reuse statements by respondent type

Statement on UKRI requirement		HEI	Learned society or academy (Outsource publishing)	Library or research management	Publisher	Researcher	Total (including other respondent types)
UKRI should require an author or their institution to retain copyright and not exclusively transfer this to a publisher	n	14	9	5	3	4	43
	%	16%	30%	17%	13%	21%	18%
UKRI should require an author or their institution to retain specific reuse rights, including rights to deposit the author's accepted manuscript in a repository in line with the deposit and licensing requirements of UKRI's OA policy	n	10	2	1	2	4	23
	%	12%	7%	3%	9%	21%	10%
UKRI should require an author or their institution to retain copyright AND specific reuse rights, including rights to deposit the author's accepted manuscript in a repository in line with the deposit and licensing requirements of UKRI's OA policy	n	51	3	17	1	4	89
	%	60%	10%	59%	4%	21%	38%
UKRI's OA policy should not have a requirement for copyright or rights retention	n	6	9	1	16	4	50
	%	7%	30%	3%	70%	21%	21%
Don't know / no opinion	n	4	7	5	1	3	12
	%	5%	23%	17%	4%	16%	5%
All answering consultees	n	85	30	29	23	19	233
	%	36%	13%	12%	10%	8%	100%

Comparing Table 6 with Table 5 (covering the same view for articles) shows the same overall pattern of response by consultee type. Most reasons given in response to this question also reflected the arguments given in response to rights retention for articles (see commentary around Figure 13 under section 3.3.1). Half of the comments on long-form outputs directly said their view was the same as for articles. Amongst those supporting retention of copyright and re-use rights, the most common reasons were similar to those of articles (section 3.3.1):

- There should be consistency of policy across different types of output (i.e. articles and long-form outputs)
- Retaining copyright and reuse would enable/promote accessibility
- This option gives authors (and institutions) control over their research

There are a few points of difference compared to views on article. A few consultees supporting retention of copyright and re-use rights noted that copyright transfer was less common with books, chapters and monographs than with journal articles, but their arguments for retaining rights (predominantly made by representatives of HEIs and libraries) were the same. A few HEI representatives said deposit rights were an important factor in their choice, as was retaining reuse rights for AAM, although one said the term author accepted manuscript does not apply to books. A second HEI representative felt that a definition of AAM for long-form outputs was required to address this question.

Books do not have an Author's Accepted Manuscript in the same way as journal articles. They go through a very different editorial process. If publishers can identify a universally acceptable version of proofs, then this might work. [HEI]

Arguments against rights retention again reflect those in response to question 12 and also strongly featured arguments from publishers. They mainly emphasised the importance of flexibility and author choice towards issues of copyright and reuse. They also suggested that rights retention is unnecessary or irrelevant when publishing using CC BY licences, or that gold OA allows for author copyright retention.

Since authors can already retain copyright under the gold OA model, there is no need for a mandatory requirement. As we have noted elsewhere, publishers offer different solutions / licenses that support the OA licensing scheme. [We] urge UKRI to support a flexible approach allowing researchers to choose the open license that best supports the dissemination of their work while also choosing the level of protection they think is best against fraud and inappropriate use of their work. [Publisher]

There were also a couple of long-form specific arguments regarding costs made by HEIs and learned societies. These arguments noted the longer authorship process and heavier involvement from publishers in developing and marketing books. For these consultees, the level of involvement created a stronger case of licensing arrangements that helped publishers recoup investment.

In addition, books have an additional difficulty for copyright transfer, as they are sold directly by publishers. For academic books, the publisher first must recover the costs of reviewing, processing, copyediting, typesetting, publishing, marketing, and distribution. Unlike journals, these costs accrue to the production of a specific book manuscript, and the book sale recoups these costs. Even digital books cannot be produced for free if they maintain high academic standards, as they require nearly all of these steps save the physical paper and printing. Once the costs are recovered, researchers may receive some royalties, with particularities outlined in individually-negotiated book contracts. Book publishers needing to recover these costs are highly unlikely to respond favourably to turning over copyright and relinquishing their ability to sell books. For this reason, they might levy a hefty fee to publish OA, mentioned above as £9,500 with [a specified publisher]. Thus, only once these costs are recovered does it seem possible to consider a shift in copyright. [HEI]

3.4 Technical standards requirements

The middle part of Section A asked consultees about their agreement with a series of technical standards relating to articles (question 13) then repositories (question 14). Around 85% of all consultees said whether they agreed or disagreed with each proposed standard. These are discussed in full within this section. In the main, most consultees agreed with all of the standards suggested. The main points of the discussion are variations in the *strength* of agreement between consultee type.

Regarding standards for articles, representatives from HEIs and libraries were more likely to agree with each standard discussed. There was some variance in the types of consultees more likely to disagree which are identified in the analysis of each standard.

Responses towards repository standards tended to be more polarised. Again, representatives from HEIs and libraries showed stronger agreement than those representing publishers or learned societies which outsource publishing. Researchers also showed weaker agreement with some repository standards.

In both cases, there is also a high degree of statistical correlation between answers given for all seven article options. This means consultees that agreed (or disagreed) with one statement about an article standard also tended take the same view of other article standards. A similar statistical correlation was found between views on repository standards.

3.4.1 Research articles

Agreement with views on seven technical standards

Figure 17 shows that most consultees agree with all seven proposed technical standards.⁵⁷ The main points of difference between standards was weaker agreement with some propositions from publishers and learned societies. In summary:

- Publisher representatives showed much weaker net agreement⁵⁸ with the statement that *article level metadata must be used according to a defined application profile that supports UKRIs proposed OA policy* (option b) and that *unique PIDs for research management information must be used and must include the use of ORCID to identify all authors and contributors* (option g).
- Those representing learned societies which outsource publishing showed slightly weaker net agreement with all statements except that *openly accessible data on citations must be made available according to the standards set out by the Initiative for Open Citations (I4OC)* (option e).
- Representatives of learned societies with an in-house publishing arm showed lower net agreement that *openly accessible data on citations must be made available according to the standards set out by the Initiative for Open Citations (I4OC)* (option e) and that *unique PIDs for research management information must be used and must include the use of ORCID to identify all authors and contributors* (option g).
- Researchers showed much weaker net agreement with option f: *self-archiving policies must be registered in the SHERPA RoMEO database that underpins SHERPA/FACT* and relatively weaker agreement with the proposition that *machine-readable information on the*

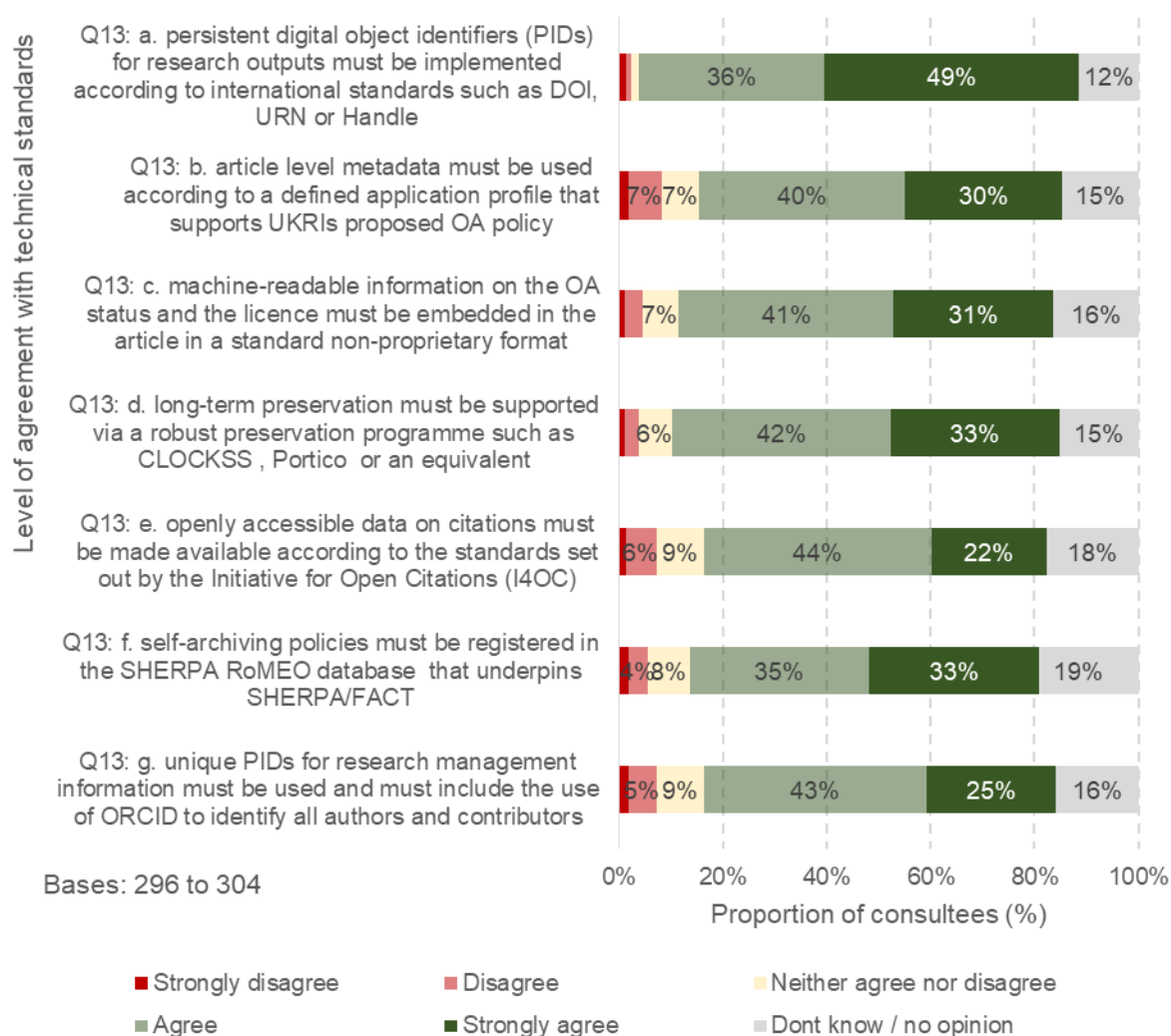
⁵⁷ Question 13. Regarding research articles in-scope of UKRI's OA policy, to what extent do you agree or disagree with each of the seven proposed technical standard requirements for journals and OA publishing platforms?

⁵⁸ The total proportion who strongly disagreed and disagreed subtracted from total proportion who strongly agreed and agreed

OA status and the licence must be embedded in the article in a standard non-proprietary format (option c).

All of these differences are described in more detail in the following per-standard discussion.

Figure 17: Level of agreement with proposed technical standards for Journals and OA



Source: Consultee responses, March to June 2020

Implementing persistent digital object identifiers (PIDs) to international standards

Support for digital object identifiers (DOIs as a form of PID was frequently referenced) was strong. Net agreement amongst all consultees was +82%⁵⁹. The "persistent" element of PIDs was valued as a way to ensure access to articles is maintained even when website links or URLs changed. PIDs were perceived to allow search systems to locate articles effectively. The phrase "discoverability" was used by a number of consultees as a shorthand and covers issues of finding

⁵⁹ The total proportion who strongly disagreed and disagreed subtracted from total proportion who strongly agreed and agreed

and accessing articles. These views were universal with no difference between different sub-groups.

A few consultees noted the importance of additional tracing methods for other non-article entities such as Research Organization Registry (ROR)⁶⁰ and GrantIDs for financing. Adopting PIDs within recognised guidelines (Crossref and OpenAIRE were mentioned regularly) was also said to maintain consistent access to articles.

Other consultees said PIDs allow cross-platform searching and a plethora of platforms / cross-referencing services were referenced. In addition to the services noted above, this included services such as Scopus, OJS, Datacite and Sherpa RoMEO. The number of platforms referenced alone illustrates the importance of inter-platform operability to consultees.

Many consultees recognised the application of a PID as best practice. In some cases, using PIDs was described as standard practice and hence straightforward to implement as a technical standard.

Few consultees were against the implementation of PIDs and most of those that were cited costs as a key reason, including all four of the publishers who disagreed. Net agreement (+62%) from representatives of learned societies which outsource publishing was lower than for all consultees (+82%). The cause of increased costs was said to be increased bureaucracy and the time required to implement standards. Some also noted that technical changes would be necessary within some repositories to handle PIDs effectively.

A number of consultees noted the potential impact of this standard on smaller organisations, especially those without the capacity or finances to generate, "coin" or apply a PID. A number of consultees said this places smaller organisations at a disadvantage as it would be harder to trace their article output.

Using article-level metadata

Net agreement with the statement that article level metadata must be used according to a defined application profile that supports UKRIs proposed OA policy was again high amongst consultees (+62%). However, net agreement amongst representatives of learned societies which outsource publishing was lower at +45% and markedly lower for publishers (+17%).

As with PIDs, the same benefits of discoverability and interoperability were frequently referenced by consultees as benefits of article-level metadata. However, there were more mentions of required standards for metadata and for these standards to be open. CC0 (Creative Commons Zero) was mentioned several times by consultees from HEIs as a possible standard.

Existing initiatives were also mentioned, of which CrossRef is cited most (possibly because a number of the publishers contributing their views are members). Other formats referenced included JATS, BITS, ONIX, RIOXX and OpenAIRE.

There were a few comments on the ownership of metadata and the potential issues this may cause. A couple of HEI consultees said publishers own metadata and hence the author or institution has no control over some elements included in the metadata such as the publication date or level of usage for that output. A couple of consultees representing libraries raised quality concerns for metadata.

The number of dimensions of metadata (the range of factors it could describe) was assumed greater for article-level metadata than for PIDs. A number of consultees, both for and against metadata, noted this standard may require greater resource to create and implement, which could result in more administration and greater cost. Some felt the structural issue (what is included and

⁶⁰ There three duplicate text references "strongly recommending" to ROR were presented by HEI consultees. Similarly, nine learned society and publisher consultees used the phrase "Publishers have long been champions and users of DOIs" in their responses.

excluded) would need careful consideration as too much metadata would add burdens across the sector. Those raised such concerns felt researchers may spend too much time on administrative activities and publishers on maintaining metadata archives that are under-utilised.

Several STM publisher consultees added the same comment regarding adherence to existing metadata requirements for science and medical articles. They noted richer metadata comes at a cost and, along with a number of other consultees, felt smaller publishers may struggle to offer the range of metadata content for free.

Embedding machine-readable information in a non-proprietary format

Net agreement with the statement *machine-readable information on the OA status and the licence must be embedded in the article in a standard non-proprietary format* was high at +68%. There was less variation between consultee types for this question ranging from +83% net agreement from representatives of HEIs to +50% from those representing learned societies which outsource publishing.

Consultees of all viewpoints identified the key benefits of adopting this technical requirement were for discovery and compliance purposes. To work effectively, consultees felt machine-readable data formats should be standardised (use common formatting and text validation rules) to ensure support services work cross-platform. Many also felt that standard formats would also support emerging techniques / services using text or data mining. Several consultees representing HEIs said standardisation also presents opportunities to create new services, or identified existing services that could operate using machine-readable data (OA Switchboard, Jisc Router and JATS XML were cited).

This means that if the article is in some way copied or in other ways accessed outside of the originating repository, then the OA status and licence information is still available, although our preference would be as much of the articles metadata as possible is embedded for the same reasons. (HEI)

Many consultees supporting this technical standard recognised improvements in compliance from embedding supporting meta-data into text that moves with the article text when copied elsewhere. Machine-readable information was also felt to speed up the creation of access reports and improve their quality. Such data would also make it easier to identify the licensing schemes (and hence access rights) through which a given article was published and hence the relevant reuse rights. A couple of HEI consultees also linked this functionality to improving organisational responses to REF requirements.

Three central concerns in relation to embedding machine readable data: ensuring standardised processes and methods; where responsibility lies for generating machine-readable content; and the administration required to maintain the system, especially for smaller publishers. The requirement for standardisation is the challenge raised the most often across all consultee groups, primarily to realise the benefits mentioned above. In addition, consultees from HEIs envisaged potential cost issues and system complexities arising from proprietary machine-readable formats. Simple systems that deliver accurate search returns was the desired outcome for a number of consultees.

All comments relating to the responsibility for creating machine-readable content were made by consultees representing HEIs or libraries. Most consultees said or assumed that publishers would hold the responsibility for assigning machine-readable metadata to articles. Indeed, most learned societies and publishers said they already did so for articles (although not all explicitly stipulating they used a standardised format). However, several consultees commented it would be challenging for authors to write such content and referenced the cost and administrative burden associated with creating machine readable content. Many consultees believed that a disproportionate burden could fall on smaller / newer publishers with fewer resources to manage and implement such standardised processes.

Long-term preservation and associated programmes

As with other statements, net agree with the statement *long-term preservation must be supported via a robust preservation programme such as CLOCKSS, Portico or an equivalent* was high at +71%. There was less variation between consultee types for this question ranging from +83% net agreement from representatives of libraries to +51% from those representing learned societies which outsource publishing.

Long-term preservation (continued access to journal articles regardless of future systems or technological change) was viewed by most of those responding to this section as essential. Most learned societies and publishers said this is a feature of their existing systems and processes and most referenced memberships to the CLOCKSS and / or Portico systems.

"Long-term preservation of research outputs is essential for the maintenance of the UK's research base. However, as noted above in relation to Q13a, the costs of services such as Portico and CLOCKSS are already prohibitively expensive for small open-access publishers. For a publisher with an annual e-journals revenue of <\$250k, the annual Portico e-journals fee is \$250. The equivalent annual fee for e-books is \$1000 (see <https://www.portico.org/join/how-publishers-can-join/>). Again, these are not unreasonable costs, but they are particularly challenging for new entrant open-access publishers." [HEI]

Consultees representing HEIs felt preservation ensured longer-term "discoverability" of published articles and several suggest such functionality is an important element of their subscription fees. A few noted that effective preservation services help protect the UK's strong reputation for research through ensuring global access to UK output.

A few of those representing HEIs said some institutional infrastructure is needed on their side to liaise with and manage access to preservation services. They felt developing such infrastructure may be more challenging for smaller institutions. A couple of HEI consultees also felt journals based in low or middle income countries may struggle with preservation service subscription costs.

A few consultees representing HEIs and libraries wanted a common definition of preservation compliance. They wanted clarification on the features of CLOCKSS / Portico that should be present in other services, especially for some not-for-profit alternatives (Zenodo from OpenAIRE) referenced. One publisher felt that UKRI should maintain a list of preservation-compliant services.

Operating in adherence to standards set out by the Initiative for Open Citations (I4OC)

I4OC promotes open access to standardised, machine readable citations.⁶¹ Net agreement with the statement *openly accessible data on citations must be made available according to the standards set out by the Initiative for Open Citations (I4OC)* was again high from those answering the question, at +59%. However, representatives of publishers (+45%) and learned societies with an in-house publishing arm (+31%) was lower.

A number of HEI consultees responded positively as this standard opens up possibilities for citation analyses. A few HEIs said access to citations is not freely available through all publishers hence some citation analyses incur costs for access to proprietary services. Other HEIs foresaw new services that could be developed using standardised citation data, or reference the value of existing subscription services (Elsevier's Scopus and Web of Science are mentioned).

I4OC addresses tendency of publishers to keep citation data under subscription model or release under limited license using proprietary tools. Citations..."allow us to attribute and credit scientific contributions, and they enable the evaluation of research and its impacts. In sum, citations are the most important vehicle for the discovery, dissemination, and evaluation of all scholarly knowledge". (<https://i4oc.org/>) Citation data limited to only certain 'approved' journals, requires access to the original article and does

⁶¹ <https://i4oc.org/>

not reflect the reality of knowledge dissemination, or its value in the wider context of research. A free, verifiable and open citation source is essential. [HEI]

Access to citation metadata offered potential for HEIs to do their own research impact assessments and analyses of research reach and impact. However, some consultees from learned societies and publishers (the sub-groups with lower net agreement scores) made a counter-argument on the basis on quality. A few learned society and researcher consultees felt simple citation metrics (counts, spread across journals) are weak without context and the value-added services that could be added based on discipline expertise and the knowledge to deal with known biases.

In relation to discipline, one HEI consultee felt open access to citations were more useful for STEM subjects and could be priced into the article processing charge. One publisher noted that citation for humanities subjects is more difficult to standardise because the variety of materials referenced are much greater.

In general, open-text views on the value of citation standards from consultees representing learned societies and publishers were more varied compared to views on other research article standards. Whilst many said their organisation was already operating I4OC standards, others felt that the choice of standard should be up to the individual publisher (based on what was appropriate for their needs⁶²), or questioned whether I4OC was the right standard to adopt.

Registering self-archiving policies with SHERPA RoMEO

Jisc operates this service which "aggregates and presents publisher and journal open access policies from around the world."⁶³ The questionnaire asked consultees the extent to which they agreed that *self-archiving policies must be registered in the SHERPA RoMEO database that underpins SHERPA/FACT*. Net agreement from all was high at +62% but did vary markedly by consultee type (Figure 18).

Most comments from all viewpoints were supportive of this proposal because the service offered saves time. Specifically, consultees representing HEIs and libraries said collating all policies in one place removes the need to visit individual publisher websites to ensure OA policies align with funder requirements. A number of consultees said this is beneficial to the REF process too.

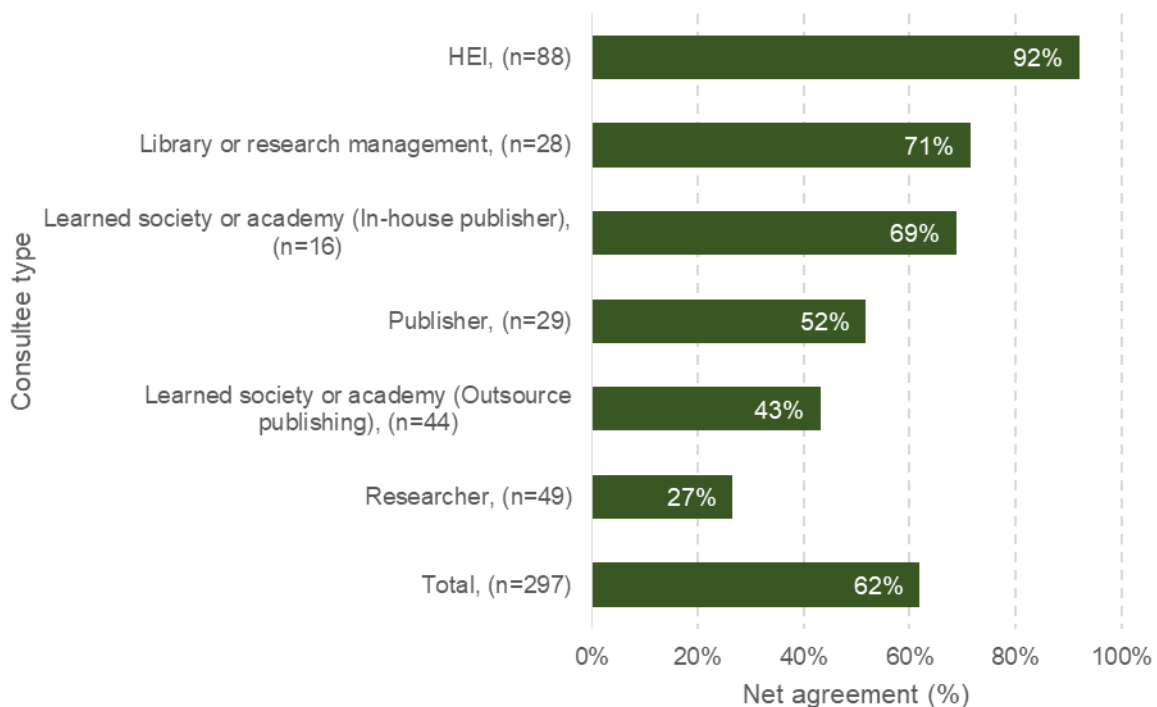
However, four concerns were expressed regarding ongoing maintenance of SHERPA RoMEO. The first two concerns relate to updating OA policies. Many service users mentioned that updates could be slow, which means information for a given publisher was sometimes out-of-date. Secondly, publisher records were not always accurate. This sometimes related to the speed of update above. A few other consultees also noted the quality of the data records could be improved with more granular, standardised data.

But registration is only the first part - publishers also need to ensure these are updated annually, even if only to confirm nothing has changed. Also Sherpa allows a great deal of free text, thus requiring library staff to read, interpret and check information. Standardised, unambiguous descriptors of policies should be used. Without these improvements, institutional support teams will bypass SHERPA/RoMEO and check publisher sites directly. [HEI]

⁶² Identical wording was used in responses here by three publishers "... this is a decision that best handled by individual organisations who are best positioned to judge whether this particular standard is appropriate for them."

⁶³ <https://v2.sherpa.ac.uk/romeo/about.html>

Figure 18: Net agreement with the statement *self-archiving policies must be registered in the SHERPA RoMEO database* by consultee type



Source: Consultee responses, March to June 2020

Thirdly, some consultees said not all journal policies are covered by SHERPA RoMEO, especially where journals are newer or smaller, hence the service is sometimes deemed incomplete. Publishers highlighted some functionality issues they face in using this service. Whilst most agree with the concept of an OA policy aggregator, some technical challenges were noted. One publisher welcomed the capability for bulk uploads in the current beta version of SHERPA RoMEO as this reduces the amount of time required to update the system. Others felt the processes available to maintain records could be simplified.

The final general concern was the sustainability of the Jisc-run service. A number of consultees noted the long-term funding of the service would rely on the continued operation and funding of Jisc and this had potential implications for preservation and discoverability should future funding changes place Jisc under threat. Several consultees suggested SHERPA RoMEO may be a service that UKRI could fund.

Adopting unique PIDs via ORCID

ORCID creates a persistent digital identifier for researchers, which can then be used to connect the researcher with their research output and other professional information.⁶⁴ Most consultees were broadly in favour of ORCID in principle as net agreement with the statement *unique PIDs for research management information must be used and must include the use of ORCID to identify all authors and contributors* was +61%. However, net agreement was lower from representatives of publishers (+24%), and learned societies or academies including those with in-house publishers (+31%) and those that outsource publishing (+39%).

⁶⁴ <https://orcid.org/>

There was a clear divide in open responses between those advocating mandatory and elective adoption in the open responses. Those explaining their choice on mandatory adoption cited interoperability and disambiguation as the key reasons. This group felt a persistent research ID system, such as ORCID, would improve the operational performance of all other institutional- and output-based technical standards. Interoperability with systems such as ROR, GRID and CrossRef were mentioned. Mandated PIDs would create a better whole system and improve access and discoverability.

Disambiguation means reducing error and potential confusion resulting from authors with the same name: many felt PIDs remove ambiguity regarding researchers from the system. However, a few HEI and library consultees noted issues with duplicate ORCID references for single authors. One consultee representing a library gave examples of researchers creating new IDs because they forget their old ORCID.

Other consultees felt that use of ORCID (or any other PID) should be elective for three main reasons. The main concern related to articles with contributing authors. Many consultees across all interest groups argued that requiring ORCIDs for all contributing authors would be hard to administer and police, especially when contributing authors were non-academics or non-UK based. Many of these consultees suggested the lead author should require an ORCID but that other contributors could choose against if they wished. One publisher noted potential publication delays for articles with large numbers of authors if all required an ORCID prior to publication.

Secondly, a number of consultees said that a PID is potentially controversial amongst researchers and makes some "uncomfortable". The few explanations given related to privacy concerns, such as the right to anonymity for researchers and the use of pseudonyms by some researchers due to security concerns.

Finally, not all publishers currently have processes in place to effectively record PIDs within their management information systems. Explanations for a lack of processes ranged from an absence in the existing database of a field in which ORCIDs could be collected, to issues in assigning multiple ORCIDs to a single article entry. A number of consultees felt smaller publishers or learned societies, or those operating on a purely voluntary basis would not have the resources to make such changes without outside support.

A few other considerations regarding PIDs / ORCIDs were raised. As with organisational records, data about the researcher held on an ORCID would need to be maintained and updated to be effective. In addition to the earlier point on duplicate IDs, work would be required by researchers to maintain their record. A couple of publishers noted that updates would be more likely if researchers recognised significant benefits in creating and maintain an ORCID.

The Contributor Roles Taxonomy (CRediT⁶⁵) was mentioned a number of times (including by a number of publishers) and is an important consideration for a wider metadata record. The taxonomy identifies 14 key scientific roles that authors may fill and provides an existing, consistent convention for identifying author / contributor roles.

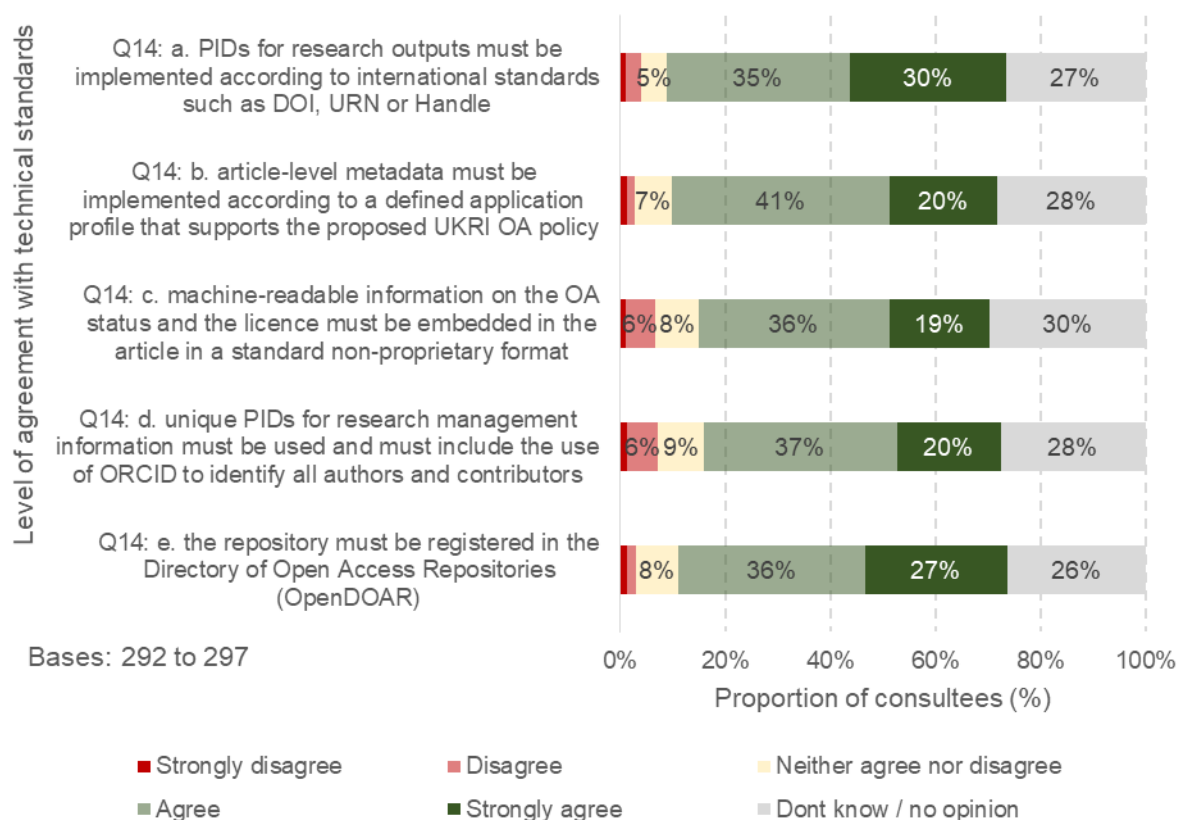
Standards for repositories

As with the technical standards for journals and articles, the level and patterns of agreement (and disagreement) between options for repositories listed in question 14⁶⁶ (Figure 19) was similar for all consultees and responses between the five statements co-varied.

⁶⁵ <http://credit.niso.org/>

⁶⁶ Question 14: Regarding research articles in-scope of UKRI's OA policy, to what extent do you agree or disagree with each of the five proposed technical standard requirements for institutional and subject repositories?

Figure 19: Level of agreement with proposed technical standards for repositories



Source: Consultee responses, March to June 2020

A key point of difference is that around two times the number of consultees selected the "don't know" and "no opinion" options on the repository technical questions compared to those of journals and articles. This is the main reason that overall net agreement with all statements on repository standards was lower than net agreement for article standards. The sub-groups offering most open views on repository standards were representatives of HEIs and libraries.

The following analyses cover open responses regarding the technical specifications for repositories. The main substantive responses were received from consultees representing HEIs and libraries.

Standardised PIDs for research outputs

In line with the earlier discussion on article PIDs, most consultees representing HEIs and libraries saw value in uniquely identifying an article to improve its discoverability and allow interoperability between search systems and platforms. Net agreement that *PIDs for research outputs must be implemented according to international standards such as DOI, URN or Handle* was +61%.

Much of the discussion within this question considers the potential for multiple PIDs to be assigned to the same article (this issues also applies to preprints). Two main mechanisms by which multiple PIDs could be assigned were suggested: those assigned at different stages of authorship; and PIDs applied by different repositories holding the same article. Many consultees across all responses discussed publication stages (institutional drafts, pre-prints, accepted manuscripts, final publication). Depending on the nature of a repository, a PID could be applied at any point, which could lead to the assignation of more than one PID. Consultees believed this could dilute the value of a unique identifier by, for example, creating split citations over time and increasing

the challenge of future discovery. Solutions to this issue included only assigning PIDs to the published version of record or using the first PID assigned to a given article through the publication process.

Several consultees from HEIs and libraries also noted the differential development stages of repositories. This means some repositories were in a better position to adopt national or international standards compared to others. Smaller repositories, or those in earlier stages of development may therefore need more support to create standardised PID systems.

Several consultees from HEIs and learned societies also mentioned challenges applying a national requirement from UKRI within a wider international framework. A couple of HEIs noted that mandating UK requirements to institutions and / or researchers from other countries could present difficulties with compliance. Others considered the issues from the other angle, suggesting any UK system should comply with international standards to be valuable. (CASRAI⁶⁷ and EU FREYA were mentioned as useful initiatives to consider.)

Article-level metadata via CC0 public domain dedication to OpenAIRE guidelines

Net agreement that *article-level metadata must be implemented according to a defined application profile that supports the proposed UKRI OA policy*⁶⁸ stood at +59%. The use of OpenAIRE as a set of best practice guidelines was broadly supported by most, although a number of consultees stated that the exact proposition for comment requires some clarification. Several queries were raised including clarification on what "international best practice" meant, whether UKRI has specific international standards in mind and some elements of timing as to when metadata should be made available. One HEI consultee queried whether an application profile specification or the article-level metadata is to be public domain (they want the latter).

Several systems and schema were referenced as potentially valuable specifications for metadata. The RIOXX⁶⁹ and Dublin Core⁷⁰ metadata profiles were mentioned most frequently by HEI consultees, and a couple also referenced schema developed by Jisc, including one that is used in their open research hub (JORH) programme.

A number of consultees representing HEIs and libraries raised issues with implementation that were variations on a data architecture theme. Repositories and/or Current Research Information Systems (CRIS) were either developed by HEIs or, more commonly, hosted externally through commercial contracts. A number of consultees described difficulties in changing the data architecture of these systems to ensure compliance with OpenAIRE guidelines. In the case of external systems, concerned consultees suggested costs would be incurred if metadata guidelines were implemented (several wondered who would pay for these changes if they were imposed). Those with internal systems either lacked internal expertise to make changes to their systems or were concerned about the amount of staff time required to alter their repository systems.

Embedding machine readable information on OA status in non-proprietary format

Net agreement that *machine-readable information on the OA status and the licence must be embedded in the article in a standard non-proprietary format* stood at +49%. Most consultees providing open responses (predominantly representing HEIs and libraries) were broadly supportive of this proposal in principle. However, clarification was requested on where OA data

⁶⁷ CASRAI no longer operates. It's former website can be found here: <https://casrai.org/>

⁶⁸ The full statement for this question was: article-level metadata must be implemented according to a defined application profile that supports the proposed UKRI OA policy and is available via a CC0 public domain dedication; this should include the persistent identifier to both the author's accepted manuscript and the version of record; the metadata standard must adhere to international best practice such as the OpenAIRE guidelines

⁶⁹ <http://riox.net/>

⁷⁰ <http://dublincore.org/>

would be embedded. Many consultees discussed the distinction between embedding within an article itself and within an article's metadata. The former was deemed difficult (some felt impossible) to achieve due to the range of formats and styles in which Author Accepted Manuscripts are produced. Several consultees felt embedding directly into Word or PDF files is not possible. Others felt any requirement to embed within articles was technically possible but could result in significant resource and cost implications depending on the level of work involved on an article-by-article basis. Many from HEIs felt this requirement would likely fall on them to implement.

Allow other services, such as CORE⁷¹ to harvest and index their content. To facilitate that it is important that the license is in a machine-readable form, one of the best practices for associating the licence information is for a permanent dereferencable link to be added in a relevant metadata field. One way of achieving this is by means of specifying the `ali:license:ref` field using the RIOXX specification. To our knowledge, the embedding of the license in the article full-text in a machine readable form has not yet been solved and it cannot be simultaneously applied with a non-proprietary format guarantee (for example, embedding a licence in a Microsoft Word born research article). [HEI]

Agree, but...how will this be encoded? Is the intention to embed in the manuscript itself, or the item's repository record? Cover pages are known to be problematic in terms of indexing, so suggest that should not be the mechanism. [Library]

Embedding within article metadata was viewed as more viable, as was creating coversheets, mentioned by several consultees. Both metadata and coversheets could be created using formats that would readily accept embedded, machine readable text: JATS XML and standard XML are mentioned as viable formats. However, consultees felt there were still cost and resource implications, which would be challenging for HEIs, authors and smaller publishers to implement.

Adopting unique PIDs via ORCID

Net agreement that *unique PIDs for research management information must be used and must include the use of ORCID to identify all authors and contributors* also stood at +49%. Views on ORCID relating to repositories mirrored those for articles discussed earlier. Most consultees giving an open response were in favour, although many gave the same caveats as for articles i.e.:

- Not all authors are comfortable with ORCID
- Potentially challenging to implement where there are multiple authors, especially where those authors are external to a specific HEI, are not funded by UKRI and / or are based overseas
- The prior point makes the requirement difficult to enforce
- A few mention that authors from arts, humanities and social science disciplines are less likely to use ORCID

Regarding repositories, the main barriers to implementation consultees suggested were technical. Consultees from all backgrounds raised numerous complications based on the design of some repositories and CRIS, which cannot currently accommodate ORCIDs. It would therefore take time and resource to adapt existing designs to implement this proposal. In their response, ORCID reference recommendations from a working group regarding the technical requirements for repositories.⁷²

⁷¹ <https://www.jisc.ac.uk/core>

⁷² Meadows *et al* (2019) Recommendations for Supporting ORCID in Repositories. Accessed on 19 August 2020: https://orcid.figshare.com/articles/Recommendations_for_Supporting_ORCID_in_Repositories/7777274/3

Repository registered in the Directory of Open Access Repositories (OpenDOAR)

Support for the proposition that *the repository must be registered in the Directory of Open Access Repositories (OpenDOAR)* was strong with an overall net agreement of +60%. Nearly all those representing HEIs (94%) agreed with the proposition.

Many HEI consultees said their institution is already registered. Others noted the benefits of membership related to the wider open access ecosystem as OpenDOAR (and other directory services) would help ensure comparability between repositories and support the wider aggregation of metadata. A couple of consultees said that OpenDOAR is a well-regarded service. The Jisc consultees note that OpenDOAR is interoperable with the Dublin Core metadata aggregator.

The main issues were the same as for other repository propositions: the resources required to ensure compliance and clarity of definition. A number of consultees representing HEIs said some developmental work would be necessary to ensure their repository / CRIS would be compliant which would mean altering the functionality of their systems. Some asked whether support would be available for such developments.

OpenDOAR was also suggested by a few HEI consultees as a useful indirect tool for identifying wider compliance amongst repositories. They suggested that membership to OpenDOAR could be used as a proxy for identifying compliant repositories. However, a few others cautioned that clear definitions of what constitutes a repository are required to assess whether a given service should or should not be listed in the directory.

3.4.2 Monographs, book chapters and edited collections

Two questions were asked in the consultation about suggested the long-form technical policy:

- Question 55: *Are there any technical standards that UKRI should consider requiring and/or encouraging in its OA policy to facilitate access, discoverability and reuse of OA monographs, book chapters and edited collections?* A quarter (24%) of consultees suggested there were technical standards UKRI should consider; half of these were representatives of HEIs.
- Question 56: *Do you have any other suggestions regarding UKRI's proposed OA policy and/or supporting actions to facilitate access, discoverability and reuse of OA monographs, book chapters and edited collections?* One in seven (14%) of consultees had other suggestions and, again, half of this group were representatives of HEIs.

Most of the comments regarding technical standards offered general support for open access regarding monographs, book chapters and edited collections. In many cases, these consultees felt the general principles involved should be similar to those used for articles. In particular, using machine-readable and persistent identifiers was deemed important, including for individual book chapters. Metadata standards, including DOIs, ORCIDs, CC licensing metadata and funding identifiers, are important. These are discussed in section 3.4.1 in relation to research articles.

Consultees recognised that open access developments are less mature for monographs, book chapters and edited collections compared to the progress on articles, and that implementation will likely face specific difficulties. Around ten consultees representing HEIs, libraries and publishers referenced the OAPEN online library and publication platform for academic books as a valuable tool.⁷³ OAPEN was mentioned the most as a service which uses metadata standards that could be developed further (as opposed to starting from scratch). The Directory of Open Access Books (DOAB⁷⁴) was another example of infrastructure frequently cited as playing a role in using open

⁷³ <https://www.oapen.org/>

⁷⁴ <https://doabooks.org/>

access standards to create a valuable service for monographs, book chapters and edited collections.

The key discussion point within question responses was the technical challenges in assigning metadata. The broad consensus was to create some manner of associated metadata which would then link to the published record, either as a deposited PDF or, preferably, a machine-readable (such as XML) version of the text.

Many of the other challenges were the same as those discussed for articles, such as incomplete use or resistance to persistent identifiers like ORCIDs, the range of potential systems to develop, which could impact standardisation, and the potential costs associated with adapting existing systems to new metadata requirements. However, on the latter point, a number of consultees felt UKRI is in a position to learn from the development on open access systems and policies for articles and apply that learning to monographs, book chapters and edited collections.

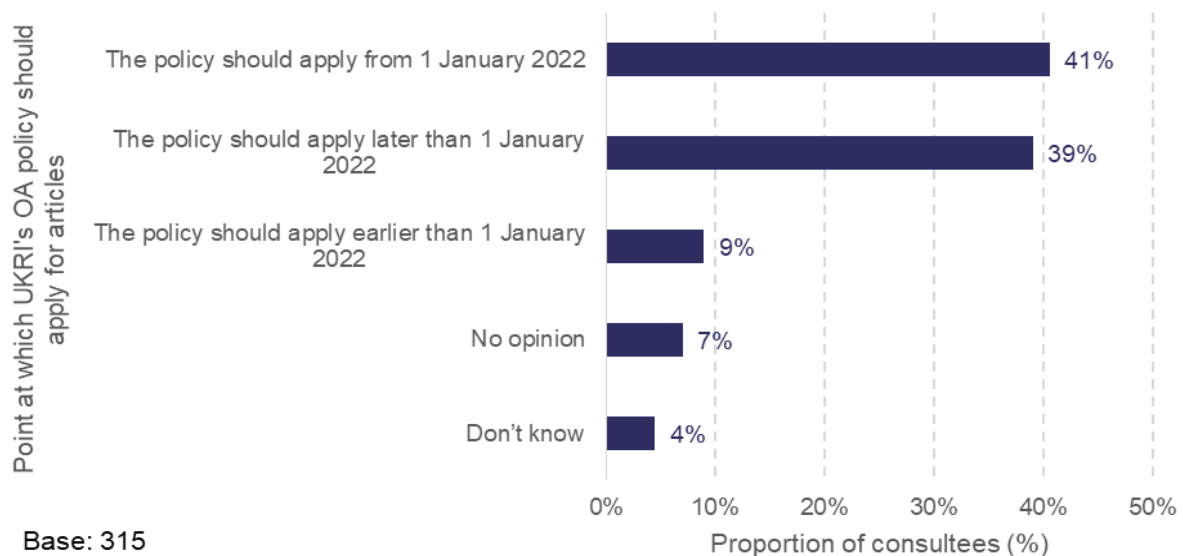
The role of funders could be important in stimulating change. In their response, one funder said they require all publications they fund to format the final document using XML and that the accepted manuscript should also conform to the book document type definition (DTD) of the NLM Journal Article Tag Suite. Other consultees also noted the role funders could play in driving policy generally, including standards, by wider adoption of the same principles between funding bodies. Such a case would be numerous funders (public or otherwise) adopting open access requirements become a condition of funding.

3.5 Timing of implementation

3.5.1 Research articles

Question 17 of the consultation asked consultees to choose one of three options which best reflected their view on the proposed timing of UKRI's OA policy which would *apply to in-scope research articles accepted for publication on or after 1 January 2022*⁷⁵. Nine in ten (90%) of consultees gave a response. As per Figure 20, most of those answering felt that UKRI's OA policy should apply from either 1 January 2022 (41%) or later than this date (39%). Only 9% felt the policy for articles should start earlier than 1 January 2022.

Figure 20: Consultee views on the proposed start date for UKRI's OA policy for articles



Source: Consultee responses, March to June 2020

Table 7 overleaf shows the favoured position differed by consultee type. Representatives of libraries (72%) and HEIs (60%) and, to a lesser extent, researchers (41%) favoured 1 January 2022. Learned societies with an in-house publishing arm (76%) and those that outsourced publishing (71%) strongly favoured a date later than 1 January 2022, as did publishers (47%) to a lesser degree. Few consultees felt an earlier implementation date should be agreed.

⁷⁵ Question 17. UKRI's OA policy is proposed to apply to in-scope research articles accepted for publication on or after 1 January 2022. Which statement best reflects your views on this? a. The policy should apply from 1 January 2022; b. The policy should apply earlier than 1 January 2022; c. The policy should apply later than 1 January 2022; d. Don't know; e. No opinion.

Table 7: Consultee views on the proposed start date for UKRI's OA policy for articles by consultee type

UKRI's OA policy is proposed to apply to in-scope research articles accepted for publication on or after 1 January 2022. Which statement best reflects your views on this?		HEI	Learned society or academy (Outsource publishing)	Researcher	Publisher	Library or research management	Learned society or academy (In-house publisher)	Total
The policy should apply from 1 January 2022	n	55	9	20	6	21	1	128
	%	60%	18%	41%	20%	72%	6%	41%
The policy should apply earlier than 1 January 2022	n	8	0	7	3	1	0	28
	%	9%	0%	14%	10%	3%	0%	9%
The policy should apply later than 1 January 2022	n	24	36	14	14	5	13	123
	%	26%	71%	29%	47%	17%	76%	39%
Don't know / no opinion	n	5	6	8	7	2	3	36
	%	5%	12%	16%	23%	7%	18%	11%
All answering consultees	n	92	51	49	30	29	17	315
	%	29%	16%	16%	10%	9%	5%	100%

Consultees were asked to explain their answer and propose an alternative implementation date if they felt another date was appropriate.⁷⁶

- Seven of 28 respondents who selected ‘*The policy should apply earlier than 1 January 2022*’ gave an alternative date, with all of these suggesting 1st January 2021 to align with other policies.
- Thirteen of 117 respondents who selected ‘*The policy should apply later than 1 January 2022*’ gave an alternative date. Most of these supported a one year delay giving an implementation date of 1st January 2023, although some gave earlier (April 2022) or later dates.

The remainder who answered largely felt that it would be difficult to give an alternative date, with reasons including the uncertainty around the impact of Covid-19 (see further detail in section 3.5.3, p.96 on university and publishing landscapes and the delayed REF 2021 submission).

A small number gave other concerns about a January implementation date regardless of the year, such as this being straight after a holiday period, not aligning with the university financial year or not aligning with the current block grant funding period.

Those who selected that the policy should apply from January 2022 were from all respondent groups and generally commented that this timeframe is reasonable, appropriate and provides sufficient time for researchers, HEIs and publishers to adapt to policy requirements. Consultees felt it is in the interests of all stakeholders to encourage a transition to OA as soon as is possible.

Alignment with other OA policies and the REF cycle

Those who supported a January 2022 (and the small number who felt it should be earlier) implementation date felt that the proposed implementation date is closest to and most consistent with other policies (Wellcome, Plan S) and that any delay beyond 2022 would cause additional confusion among researchers and institutions. Some consultees who felt that 2022 was appropriate did caveat this sentiment and said this will be largely dependent on the extent of the impact of the Covid-19 pandemic on the sector and decisions made about what the REF-after-REF 2021 OA policy may look like.

Some consultees, mostly representing HEIs but also across most other groups, suggested that alignment of implementation with REF-after-REF 2021 would be easier to manage in terms of the required administration and resource, and would help to encourage engagement, reduce confusion and complexity and consequently, increase compliance. Some consultees noted that as a result of having different OA policies in place at different points the REF 2021 cycle has created substantial additional administrative burden (see section 9 for further analysis of responses to REF-specific questions).

The policy should apply earlier than 1 January 2022 to avoid a two-stage open access policy covering one REF period. Multiple open access policies are likely to create more confusion around compliance checking later. Taking an earlier date of 1st January 2021 would allow for one policy moving forward (assuming REF policy applies from the same date). There are already two possible OA policy dates anticipated, Wellcome and REF, we wouldn't want a third date which is different. A 1st January 2021 date could however be problematic if there were still publishers who did not comply. Leaving the in-scope date to 2022 could lead to items published in 2021 with an embargo and green OA but those published in 2022 not allowed an embargo which becomes complex to monitor and manage. UKRI OA policy should align with Wellcome and REF to avoid the existence of different OA policies over one REF period [HEI]

⁷⁶ Please explain your answer. UKRI particularly welcomes detailed evidence as to the practical implications of the choice of date. If you selected b or c, please also state what you consider to be a feasible implementation date.

Should apply from 1-Jan-21 to ensure that uniform OA requirement for UKRI and output period for REF-after-REF2021 to avoid fragmented policies and confusion for researchers and institutions [Researcher]

As a signatory to Plan S and a key player in cOAlition S, the ideal approach would be for UKRI to apply this policy from 1st January 2021. This would align with Plan S, and that of Wellcome's new OA policy and thus ensure that the UK's two biggest research funders had a consistent OA policy. However, if the final UKRI policy is not published until later in 2020 we understand that this may not give sufficient time to make final adjustments to institutional and publisher workflows and to alert researchers. Therefore, we would understand a delay until 1 January 2022. There would be no justification for a delay beyond that date. [Research funder]

Preparation or transition time needed

Consultees from all groups who felt that the policy should apply later than January 2022 reported that additional preparation or transition time will be needed to allow adaptation to new OA requirements in the UKRI proposed policy. Many respondents with this perspective cited the Covid-19 pandemic as impacting this position, but others felt that more preparation time generally was needed in particular subjects or disciplines.

Later than 1 Jan 2022, since many concerns related to IP and copyright or third party use in monographs also apply to open access articles in a variety of disciplines in the arts, humanities and social sciences, ethnomusicology but being one example of a discipline which would benefit from a later implementation. Covid-19 will also have delayed many plans for change or priorities, so there too, additional time may be required to implement the necessary technological changes and/or create the concomitant policies/upskill staff where needed (e.g. in the case of managing copyright at HEI level or upskilling professional and academic staff in the differences between various CC-BY licenses and their options). [HEI]

[Learned society] understands that UKRI wants to set a date for the start of the policy, but we are very concerned that this timing poses substantial challenges for all parties—funders, publishers, and researchers. Each must be ready to support this implementation, and only 18 months during a time of profound global disruption is simply too soon. [Learned society with in-house publishing arm]

Representatives from learned societies and HEIs in particular noted that the policy as proposed applies to all articles *accepted* for publication on or after 1st January 2022. Consultees said this will result in the policy applying to articles submitted as early as 1st January 2021. This was felt to be too soon to for journals and publishers to amend and put in place policies, contracts, publishing infrastructure and strategy, especially if the final UKRI policy detail is not agreed and announced until late 2020. Instead, consultees requested that the policy apply to articles *submitted* on or after 1st January 2022 to allow sufficient preparation and transition time. There was also concern expressed from one HEI (that was reiterated by others elsewhere in the consultation) that a lack of compliant journals will limit the options for publication by January 2022.

Similarly, representatives from publishers and a small number of other respondents said that the proposed timescale is too soon to allow the necessary transition. Publishers noted that once the policy details have been finalised, they will need to negotiate transformative agreements, liaise and reach agreement with partner societies and other stakeholders, and make and implement policy changes internally. The peer-review process is also a lengthy time consideration. Some publishers said that they have already accepted articles for publication in 2022; the full time span of the publication process should be considered when determining an implementation date.

There is a need for clear, and workable, transitional arrangements, and/or a very long lead time. Publishing in a journal can often take more than 6 months, and sometimes more than a year, so there needs to be over a year between policy announcement and implementation. We are in the early stages of signing up to transformative agreements. We have signed up to the Wiley read and publish agreement which took so long to negotiate that our existing agreement was extended. 10% of 2019 articles where we paid for open access were in Wiley journals. Around 25% of 2019 OA payments were to Elsevier. Our Elsevier subscription agreements have another 2 years to run and although Jisc negotiations have started with Elsevier, we would might need a transitional arrangement if negotiations were not complete when the new OA policy came into force. [Library and research management – Research Institute]

As the peer review process can take 3-18 months (depending on discipline) from submission to publication a twelve-month implementation period is unfeasible. We suggest a 2023 policy date in order to accurately plan and ensure that all content that has been funded by UKRI, and submitted prior to that date, can be processed and follow mandates at time of implementation. [Publisher]

We are concerned that imposing a start date of 1 January 2022 for all disciplines risks destabilising the publishing environment for research directly funded by UKRI (a very small proportion across many of the disciplines in our Faculties), or building on such funded work. Currently there are very few journals in the disciplines we represent which would be compliant, and limited progress with discipline-relevant arrangements under transformative deals. Further transition will take time. An application date of 1 January 2022 would begin constraining submission practices by early 2021 at least, having regard to the timetable for peer review and revision. The risk of a sharply diminished choice of high-quality outlets for publication during a period of abrupt transition is heightened by the pandemic impact on publishers and learned societies. [HEI]

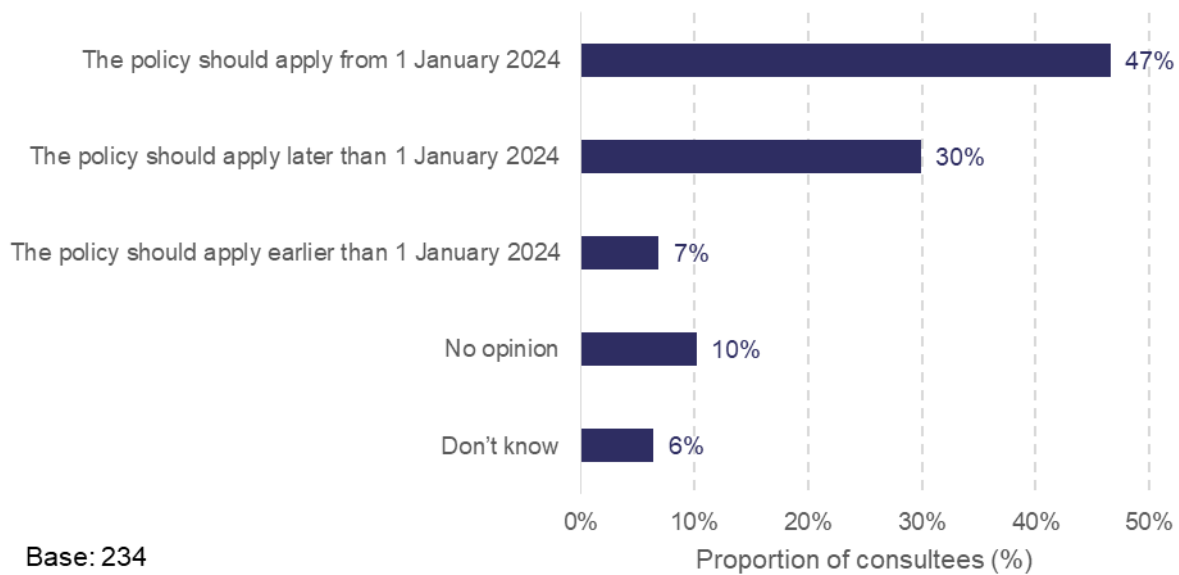
The need for more technical investment, establishment of sustainable market rates models and the renegotiation of existing publishing agreements are all areas that could cause difficulties for smaller learned society publishers when rapid change is required. While learned societies would prefer their journals to be able to accept UKRI-funded studies from day one of the new policy, a fast development could preclude this for a time. Some societies, already developing OA models e.g. The [Society] Press have established transformative agreements with pilot programmes to assess usage and implications. While the deals will provide a compliant route by January 2022, it will be premature to assess the implications. [Learned society which outsource publishing]

[Organisation] needs time to find and test a sustainable open access business model. The production and publication of [Publication] by partially-funded and unfunded author teams means that a traditional APC model is not suitable for [Organisation] and the emerging 'pay to publish' models via transformative deals are also not suitable... We need an open access business model that also funds review production, editorial management, quality control, publishing, training and knowledge translation. We need time to consult with our global stakeholders, including research funders and government purchasing agencies, to identify and pilot a hybrid funding model that can support our production, publishing, dissemination and organisational support costs within an open access publication model. We need time to align the expectations and requirements from our global funders and purchasers. [Other research organisation with a publication]

3.5.2 Monographs, book chapters and edited collections

Two-thirds of consultees gave a response to question 50⁷⁷ which asked for a preference *regarding the timing of implementation of UKRI's OA policy for monographs, book chapters and edited collections*. Three options were given in addition to no opinion and don't know options. Figure 21 shows nearly half (47%) of those responding felt that UKRI's OA policy regarding monographs, book chapters and edited collections should apply from 1 January 2024 (47%). Three in ten (30%) said the policy should apply later than this date and 7% said earlier. One in ten held no opinion on the matter.

Figure 21: Consultee views on the proposed start date for UKRI's OA policy for long-form outputs



Source: Consultee responses, March to June 2020

Table 8 shows the favoured position differed by consultee type. As with the start date for articles, representatives of libraries (72%) and HEIs (60%) favoured the default position of 1 January 2024. Learned societies which outsource publishing (47%) and publishers (54%) favoured a date later than 1 January 2024. Few consultees felt an earlier implementation date should be agreed.

⁷⁷ Question 50. Regarding the timing of implementation of UKRI's OA policy for monographs, book chapters and edited collections, which statement best reflects your view?

Table 8: Consultee views on the proposed start date for UKRI's long-form OA policy for articles by consultee type

Regarding the timing of implementation of UKRI's OA policy for monographs, book chapters and edited collections, which statement best reflects your view?		HEI	Learned society or academy (Outsource publishing)	Library or research management	Publisher	Researcher	Total
The policy should apply from 1 January 2024	n	52	8	21	5	7	109
	%	60%	25%	75%	21%	39%	47%
The policy should apply earlier than 1 January 2024	n	5	0	0	2	2	16
	%	6%	0%	0%	8%	11%	7%
The policy should apply later than 1 January 2024	n	22	15	1	13	5	70
	%	25%	47%	4%	54%	28%	30%
Don't know / no opinion	n	8	9	6	4	4	39
	%	9%	28%	21%	17%	22%	17%
All answering consultees	n	87	32	28	24	18	234
	%	37%	14%	12%	10%	8%	100%

Consultees were asked to explain their answer if they proposed an alternative implementation date.⁷⁸ When they gave a date, the small number of respondents who felt an earlier date would be appropriate proposed January 2022, or stated that it could be in line with the UKRI OA policy for research articles or Plan S.

Agreement with the proposed January 2024 date

Those that agreed with the proposed implementation date of 1st January 2024 were mostly from HEIs and libraries – very few respondents from publishers or learned societies agreed. HEI and library respondents who agreed felt that this provides sufficient time for researchers and HEIs to prepare for the transition to OA for long-form outputs. Some said that, given the particular complexity of OA publishing for long-form outputs, any earlier than 2024 would be too soon for some publishers or HEIs to be ready.

Many of those who agreed also felt that any later than 2024 would be too far away to provide the necessary impetus to the sector to take action to prepare. Some consultees, including those advocating for an earlier implementation date, felt that the publishing sector and HEIs have already had many years to begin to prepare for a transition to OA for long-form outputs.

There have been discussions about there being a monograph element of the REF OA policy since at least 2013 so this requirement should not come as a surprise to any stakeholder. A policy with a clear timeline towards 1 January 2024 would give all parties the incentives and clarity needed to start preparation work now. [HEI]

Providing over three years for the sector to develop the necessary support workflows, researcher practices and system infrastructure should be sufficient, provided that there is a genuine willingness to co-operate among publishers. [Library]

Flexibility needed

Some of those in agreement with the 2024 date did however acknowledge that this would be challenging and that there may need to be some flexibility (however, others preferred a blanket policy to limit confusion). Those who suggested flexibility or a transition period discussed this in relation to monographs in particular, and caveats were made with the need for funding mechanisms to be developed by then and transitional arrangements in place. References were made to the disruption caused by the Covid-19 pandemic (see further detail in section 3.5.3, p.95)

1st January 2024 is appropriate, giving a longer period for researchers, institutions and publishers to develop their approach to monograph publication. There may need to be greater flexibility in how the policy is applied to monographs, to acknowledge the fact that this is the first time many researchers have been mandated to publish monographs openly. Policies relating to OA publication of journal articles have developed over time, with some initially allowed for low rates of compliance, increasing over time (RCUK) or where clearly defined exceptions to the policy were permitted (REF2021). A similar approach could be considered for monographs. [Library]

The proposed 1 January 2024 implementation date gives a long enough lead time, but we note that achieving this deadline will depend on UKRI's making funding provision available well in advance of this... It is considerably easier for publishers to manage compliance based on signing date rather than publication date, as it is hard to predict publication date accurately until the manuscript is delivered to us. We therefore appreciate the exception for books signed prior to 1 Jan 2024 with contract terms that prevent compliance. Books published from September/October onwards may take the following copyright year. Clarification is therefore needed that compliance will be based on actual publication date rather than by copyright year. [Publisher]

⁷⁸ Please explain and, where possible, evidence your answer. If you selected b or c, please also state what you consider to be a feasible implementation date.

The possibility of an open access policy for monographs and related outputs has been trailed by UK funders for a number of years now. Setting a date of just under four years from now could give researchers, publishers, and libraries time to put in place the processes and infrastructure needed to support the policy. Any later and there is a danger that planning will drift. Just under four years could allow publishers and funders time to plan for a transition, and to establish funding mechanisms and policy details. Policy should set out whether the date applies to signature of publisher contract or publication date. It would need to be the former, since the contract would need to set out the terms of publication and the licence. However, an approach favoured by some academics is this: a later deadline to enable UKRI to undertake further research (e.g. using tiered costs for tiered embargoes--), 12, 24, 36, 48 months) before setting policy in stone. In the current financial pressures facing HEIs and publishers, is there yet confidence that a speedy move to OA is achievable across all disciplines?. [HEI]

Disagreement with the proposed January 2024 date: Preparation or transition time needed

Publishers and learned societies largely favoured a later date. Representatives of these groups and of a number of HEIs advocated a phased implementation, a 'soft launch' or voluntary approach, to allow for testing and exploration of new publishing and business models. They also suggested a 'bedding-in' period to allow for the resolution of practical challenges and issues without sanctions. Some commented that greater detail and clarity on funding mechanisms to support the transition is required before a decision on implementation dates can be made.

Responses largely reflected concerns expressed elsewhere that OA infrastructure for long-form outputs is not established to the same extent as journal articles, and that for AHSS, where these outputs are more common, this would make compliance problematic. This is discussed further in section 3.7.2.

More work needs to be done to determine the impact on publishers of the proposed policy. Rather than make it compulsory across all disciplines from 1 January 2024, why not apply it in stages to the different disciplines, starting with those for which funding for publication is widely available, and for which third-party rights are not an issue? [Learned society with in-house publishing arm]

At present there are few business models for OA monograph publishing operating at scale in the UK. It seems foolhardy to implement such a policy without assurance it can be operated in practice. [Learned society which outsource publishing]

In the light of Covid-19 and huge likely library budget cuts there needs to be a significant rethink and assessment about the impact the policy will have on publisher sales and viability, especially as print sales across the sector are currently plummeting, e.g., The Association of University Presses reported losses of -58% of sales across 66 publishers in the US and UK in April. In any case, OA book publishing is very new and very little output has been published to date to draw strong conclusions from compared to the journals field. More time is needed to trial different models and see their impact to avoid detriment to the academic publishing community, especially not for profit and smaller publishers. [Publisher]

Advice and guidance

More than a third (37%) of consultees said *they had suggestions regarding the type of advice and guidance that that might be helpful* at question 51⁷⁹. Just over half of these (66 of 131) were HEI respondents, with a further 20 from libraries. Many of those commenting acknowledged that OA

⁷⁹ Question 51. Do you have any suggestions regarding the type of advice and guidance that that might be helpful?

publishing for long-form outputs is more complex and said that all stakeholders will require additional support, advice and guidance in the years leading up to implementation of the policy.

HEI and library respondents had considerable overlap in their suggestions for advice and guidance needed. The most commonly referred to area (35 consultees) was copyright requirements, third-party rights and licencing. Specifics in this area include redaction, negotiating reuse rights for material, legal guidance around copyright and third party content, retaining copyright and copyright exceptions, the different CC licences available, this would help with concerns that researchers might have or misconceptions around the use of third party material. In some cases, AHSS disciplines were highlighted as in particular need of this support.

The second most commonly requested area of guidance for HEI and library respondents was sharing information on publication pathways (20 responses) or a directory of compliant publishers, platforms and routes. Within many of these responses, a service similar to SHERPA for books and monograph publishing (23 responses) was suggested as needed.

A smaller number requested particular guidance on monograph OA publishing and how to ensure compliance. This included ensuring that the AAM was accessible and useable, what counts as AAM standards, and other good practice information. Within this, one respondent suggested that worked examples of monographs that are in/out of scope would help with this. Guidance on accessing publication funding and education or other ways to persuade uptake were also suggested by half a dozen consultees.

Other suggestions made by only one or two respondents from HEI/libraries include more guidance on exceptions generally, maximising visibility of outputs, sharing best practice and new infrastructure as it emerges, how to negotiate with publishers, and clear guidance on the differences between the UKRI OA policy and other OA policies such as the REF.

Twenty-one publisher and learned society respondents offered suggestions of what guidance might be helpful. The most common response related to education for researchers, on firstly the need for OA and compliance but also how to comply, what to consider when publishing monographs, and any other support they might need to encourage them to engage with OA. Other suggestions from this group were guidance around deposit responsibility, publisher policies, compliant pathways, funding for authors, and advice on the use of third-party material.

Other respondent groups offered little in addition or common to their group. Researchers suggested two extra areas of support: the need to support researchers to think through what OA publication should be like (functionalities etc.) which could be integrated into PhD student training, and reassurance for researchers that they will be able to continue to publish with high-quality publishers.

Many respondents from all groups made suggestions on how this should be delivered as well as the content. The overall messaging from all parties was that advice and guidance should be clear, accessible, consistent, as visible as possible, available well in advance of implementation dates and customised or customisable to different stakeholders and institutions.

Methods for dissemination and ongoing support suggested by respondents were webinars, Q&A sessions, videos or infographics, a dedicated website with guidelines, a hotline for queries, ongoing correspondence with grant holders with updates, and training for library or other staff responsible for compliance. One respondent suggested a 'myth busting' angle to help with education and compliance.

3.5.3 Impact of Covid-19 on proposed timelines

A large number of comments were made by consultees in relation to the proposed timelines referenced the impact of the Covid-19 pandemic. In response to the timing of 1 January 2022 for articles, 55 of the 124 open responses (44%) following the selection of *'The policy should apply*

later than 1 January 2022' at question 17⁸⁰ mentioned Covid-19, coronavirus, pandemic or wording alluding to the "current situation". For long-form outputs, 22 of 78 responses (28%) referenced Covid-19 in some way. Amongst those who selected *'The policy should apply from 1 January 2022'* there were still references to the pandemic, with many of these acknowledging that depending on the longer-term impact of this, some flexibility may be needed.

Many of these consultees felt that the proposed policy timelines should now be reviewed in light of the impact of the pandemic. Some consultees expressed the sentiment that they had felt the proposed timelines were tight but likely to be achievable for most, however, they no longer felt this to be the case. Consultees from across all groups highlighted that the immediate and long-term impact of the pandemic is unknown. Due to the degree of uncertainty and disruption across the research and publishing sector, consultees felt it would no longer be appropriate to proceed along the proposed timeline for policy implementation.

Consultees from HEIs noted the significant income and budget challenges within the sector and that these are likely to increase due to the pandemic. They felt that increased uncertainties around income, budgets and future operations, including the potential for redundancies and job losses, will be felt for several years and will severely impact their ability to make a successful full transition to OA.

Some consultees noted that the economic and financial impact of the pandemic is likely to result in an exacerbation of inequalities for Early Career Researchers (ECRs), those on part time or fixed term contracts or those with caring responsibilities. Consultees felt that these groups already face job instability and have less access to the necessary funding to support OA costs. Further, these groups are most likely to be negatively impacted by the pandemic. The proposed timescales were perceived by some to put further strain on HEIs to support them if HEIs are required to allocate further funding and resource towards OA publishing, monitoring and compliance.

Consultees from learned societies, publishers and others agreed with HEI and library respondents that delays to the proposed policy implementation dates would be appropriate in light of the pandemic. These consultees said that the general disruption to the scholarly, HE and publishing landscape as a result of the Covid-19 pandemic means that all stakeholders in the research and publishing process are unlikely to be ready for a policy implementation date of 1st January 2022 for articles or 1st January 2024 for long-form outputs.

1 January 2022 seems a reasonable timeframe for policies and infrastructure to be put in place post REF2021. However, it may be important to be flexible depending on how disrupted the sector is in 2020 by Covid-19 shutdown, so it may be that a longer timescale (c) is necessary. We do, however, have concerns that this may be an ambitious timeframe for ensuring that journals have changed their policies to allow for gold or embargo free green OA, which many currently do not all [HEI]

Given the potential implications of these proposals to a wide range of researchers, sufficient time is needed both to ensure that researchers are aware of the decision and for them to absorb the consequences. This is particularly true for those working on longer research timelines, as well as during this time of major disruption caused by the Covid-19 pandemic. Time to ensure researchers are aware of decision and the actions they need to take to ensure they are compliant. Particularly given Covid, an implementation date of 1 January 2023 would be more realistic in consideration of these issues. [Learned society with in-house publishing arm]

Given the delay in publishing UKRI's policy and the unknown effects of Covid-19 on research and publication more time should be taken to review the policy before it is finalised. We have journals which have already accepted articles to publish in 2022 which is another reason we believe more time is needed. [Publisher]

⁸⁰ Q17. UKRI's OA policy is proposed to apply to in-scope research articles accepted for publication on or after 1 January 2022. Which statement best reflects your views on this?

The Covid-19 pandemic has had a huge impact on the sector, including many positive steps forward for OA. However, it is difficult to envisage a suitable date at the moment, but we will need time to return to normal and then educate our researchers about the new policy before it comes into force. Prior to the pandemic we didn't have particular concerns about the proposed date [HEI]

3.6 Public value, costs and funding

The potential financial implications of the proposed policy, UKRI's role in funding OA costs and any changes to the publishing landscape that might result from this policy being implemented is a complex area of the consultation and one that respondents referred to in response to various questions, not just those directed at public value, costs and funding.

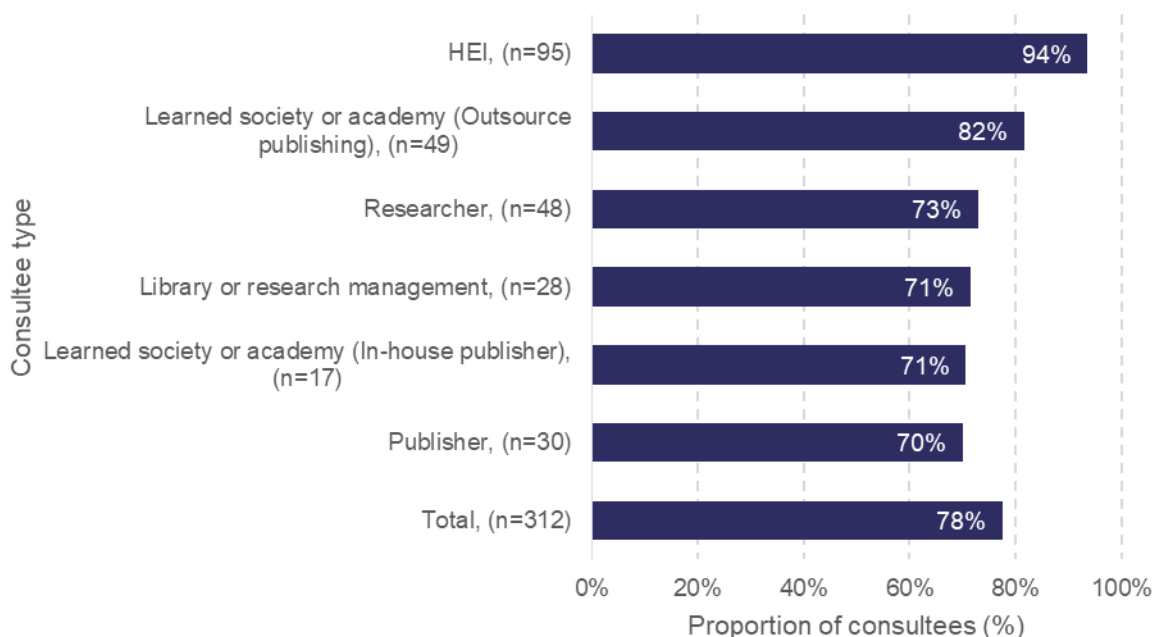
Responses that discussed financial implications, for research articles and long-form outputs, represented the clearest divide between those with a commercial publishing interest (publishers and learned societies) and those without. The potential financial impact of OA requirements was a concern to the majority of consultees, but the explanations for this were largely divided between loss of revenue for publishers and learned societies, and increased costs for HEIs and libraries. However, concerns about the future of the publishing industry, in particular smaller publishers and presses struggling to survive and compete with larger commercial publishers, were supported by some HEI and library respondents.

3.6.1. Research articles

Financial cost implications

Nine in ten (89%) of consultees responded to question 19 which asked: *Do you think the proposals outlined in Section A will have any financial cost implications for you or your organisation?*⁸¹ Nearly four in five (78%) of consultees who responded said that there will be cost implications for them or their organisation and these implications would be felt across all consultee types (Figure 22).

Figure 22: Whether respondents think the proposals outlined in Section A will have any financial cost implications for their organisation, by consultee type



Source: Consultee responses, March to June 2020

⁸¹ Question 19: Do you think the proposals outlined in Section A will have any financial cost implications for you or your organisation?

Consultees discussed concerns about both wider trends in scholarly publishing and OA, as well as UKRI's specific proposals. In summary, the main concerns were as follows:

- Increased article processing charge (APC) costs
- Increased costs due to increased workload (administration and implementation)
- Loss of income
- Greater impact on smaller publishers or HEIs

This final point was referred to in several places in the consultation responses, with some asserting that smaller, more specialised institutions and publishers would suffer the most from the increased financial costs of UKRI's proposed policy. It was felt that learned societies in particular would not be able to make savings to balance the increased costs in the same way that larger commercial publishers could. Small HEIs may be similarly disadvantaged if greater resource is needed to cover APCs and transformative agreements.

Increased publishing costs

Consultees' greatest concern was the increase in costs, including direct costs, variable costs and overheads. Amongst these, the main issue was APCs for OA, with the majority of these being made by HEI or library representatives (although this was also raised by a small number of publishers and learned societies). Several respondents gave evidence of APCs increasing above the rate of inflation in recent years. Although some HE providers get discounts on APCs where subscriptions are in place, these costs were already of concern, and it was felt that further moves towards OA could intensify the problem. Some noted that subscription costs were also still rising.

It was felt that for some researchers or institutions, increasing APC costs would limit the number of articles that can be published in accordance with gold OA. This was a concern highlighted for smaller and less research-intensive organisations who may have a small block grant or none at all, but many also acknowledged that it affects larger and research-intensive universities where the volume of articles they publish means that costs are likely to be much larger in total.

Some HEI and library representatives stated that APC costs and the associated administrative resource already exceeded the value of current UKRI OA block grants, or will do so in the near future as more research will need to be published OA than previously. Concern was also expressed by one respondent that APCs being subject to VAT but not subscriptions could also lead to an increase in costs with a pay-to-publish model.

A related issue for respondents is the practice of 'double dipping', where publishers charge both subscription fees and APCs, although it was recognised that some publishers have policies to avoid this practice. In some cases this was referred to as a criticism of hybrid journals (see p.107).

Increases in APCs is proceeding at a rate three times that which would be expected if APCs were indexed according to inflation and this could mean that some authors may feel constrained in their journal selection, by avoiding journals that either suddenly introduce an APC or increase their APC.⁸² [HEI]

An increase in the average cost of an APC paid from the [HEI] RCUK Block Grant between 2013 and 2020 of 46%, from an average APC paid in 2013-14 of £1,530 to an average APC paid in 2019-20 of £2,240 (inclusive of VAT). Over 2019/20, direct APCs paid have ranged in cost from £560 to £4,896. This reflects similar findings in published data from other organisations, and we would refer UKRI to one

⁸² Respondent (as well as several others) gave the following sources: <https://www.jisc.ac.uk/reports/apcs-and-subscriptions> and <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2017/monitoring-transition-open-access-2017.pdf>

example of data available,⁸³ showing an increase in cost, and a comparatively higher APC cost for hybrid journals in comparison to open access journals. [HEI]

There is data from the Total cost of ownership project⁸⁴ to help quantify this. Our data shows an increase over time per article, for example [publisher] costs per article: Average £2,104.63 (2019); £2,030.77 (2018) £2,070.50 (2017) £1,969.29 (2016) £1,793.00 (2015); Transitional agreements factor in a year on year price increase on the whole agreement (including the OA portion), which builds in the expectation that investment will continue to rise. [HEI]

The cost of the average APC continues to rise. In 2018/19 at [HEI] the average APC paid from the UKRI block grant was £1,989; in 2019/20 the average APC was £2,270. In 2019 30% of our block grant was used to pay APCs in [publisher] journals which do not offer a transformative agreement or any other discount while also offering only non-compliant green OA. [HEI]

The current Read and Publish deals that we are seeing through Jisc are aiming to transform costs over time, from paying for subscriptions for journal titles to paying to publish in these journals. Generally, these deals are being offered as a staged approach over the next four years to move from read to publish for the UK market. About £2.3m subscription spend at [HEI] currently goes on 4 of the “major publishers”, which are the most likely to be put forward as transformative agreements as they have the capacity to incorporate this business model. The agreements we have seen so far tend to combine current subscription costs alongside current APC expenditure. Generally, the cost of these transformative agreements incorporates all APC spend including those generated in departments (either for non-funded papers and/or non-centralised grants such as NIHR, H2020, etc.). Because of this the costs of these deals are proving more expensive and under current UKRI arrangements these extra costs couldn't be covered by block grant funding. This would either leave us with a significant shortfall of funding which we would be unable to recoup or put significant restrictions on where researchers are allowed to publish based on available funds thereby impacting visibility of our research. [HEI]

The average (mean) APC price paid by [Institute] has risen over the past four years. Recent increases have been approaching 10% p.a. 2016/17 – £2483.12 (n=139) 2017/18 – £2477.39 (n=147) 2018/19 – £2722.71 (n=130) 2019/20 – £2930.17 (n=128) [Research Institute]

It is highly likely... that as the policies for open access play out across territories that impact on our journals that our APCs will need to increase. This is certainly the case for our gold open access journal where the APC has been kept artificially low to promote the journal and the OA publishing form. The APCs for this journal are supported by our hybrid journals and do not meet the real costs of the journal. We suppose that this would be an unforeseen and unwanted consequence of policy changes and it points to the relative vulnerability of AHSS in these discussions. [Learned society which outsource publishing]

Price increases for APCs may be used to offset declines in subscription revenues. [Publisher]

Some HEI and library respondents also felt that there would be financial implications for them in increased subscription costs. Many felt that the balance of costs had not yet shifted away from subscriptions to APCs, with APCs increasing but little noticeable difference to subscriptions.

The cost of the University Library's journal subscriptions has increased by an average of 8% every twelve months over the last three years. This is not sustainable. [HEI]

There is a potential benefit of moves to pay per publish versus pay to read, and the potential of accessing open research may allow reduction in library subscription costs (especially for a learning and teaching intensive university) but we have concerns that costs of both subscriptions and APCs have in recent years outstripped inflation and resulted in increased costs for the organisation, which are becoming increasingly unsustainable. While transformational deals are being negotiated there is a fear that Read-and-Publish & Publish-and-Read deals essentially bake-in double-dipping forever. [HEI]

⁸³ <https://wellcome.ac.uk/funding/guidance/open-access-guidance/wellcome-and-coaf-open-access-spend-201718>

⁸⁴ <https://figshare.com/search?q=jisc%20collections&searchMode=1>

This will have financial cost implications initially as costs for subscriptions have gone up, and are not the equivalent of our previous subscriptions + APCs, as most prices have been calculated looking at publishing outputs across the whole of the UK rather than by institution level. [HEI]

Increased implementation and administrative costs

A number of respondents, mostly but not exclusively from HEIs and publishers, felt UKRI's proposed policy would increase administration and implementation costs, due to a perceived increase in workload and resource needed to manage the finances of publishing and overseeing licensing compliance and publishing constraints. Suggested operational cost implications include staff time to negotiate, agree and implement Publish & Read agreements (stated by both parties involved in these), monitor compliance, managing any increased block grant to fund APCs, training on copyright and licensing requirements, and managing increased use of repositories. Others reported that software upgrades, training and other investment in digital infrastructure would be required to improve repositories to meet meta-data and other technical standards and requirements.

[HEI] does not receive an OA block grant and a small amount of QR [Quality-related Research funding]. As a direct result of the policy, financial resource will be needed to support licensing queries, legal protections (such as moral rights cases), and developing new open routes. [HEI]

Open access compliance still relies heavily on manual intervention from repository staff and across the sector many different technical solutions and products support open access. We agree that the sector is better placed to support OA than it was 5 years ago but it is little recognised that HEIs are resourcing many services that were not in existence 10 years ago. An approach that increases the Open Access compliance will produce demands on open access support and there should be allowance in the UKRI policy to fund aspects of open access support other than publishing/licensing costs, to include staffing and infrastructure costs. [HEI]

As an applied-research publisher, only a very small proportion of our open access content is paid for. We do not currently foresee this changing significantly. However, our administrative time costs to accommodate the proposed changes and reporting requirements have already increased disproportionately and are likely to continue to do so. [Learned society with in-house publishing arm]

UKRI must know that any technical step in the way of publication (licensing, uploading, maintaining, form-filling, etc.) will be done at the expense of research time. We do not have administrative assistants who can do that for us. Therefore the new procedures and requirements should be subject to a detailed, open and public costing exercise and UKRI should review the proposal after this detailed costing step is made public. [Researcher]

Aside from green OA, which is [a] non-sustainable option, any other extra requirements as outlined in Section A imply extra work on our part, the more so as these requirements are expressed differently by different funders. Fulfilling this workload will have a cost, and in many cases a recurring cost. [Publisher]

Loss of income Learned societies gave the largest number of responses concerning a potential loss of income, which was also a concern for some publisher respondents. Where more detail was given, this was explained as a result of authors choosing the green OA route with zero-embargo, or in some cases, if UKRI did not fund APC for hybrid journals where this is a major source of income.

Learned societies that publish journals (in-house or who outsource publishing) felt that green OA would nullify access to the journal that they currently offer in return for membership fees; others that the loss of subscription fees would be damaging. There were concerns that both of these implications would threaten their commercial viability and as a result, their support of the academic

community, particularly early-career researchers who currently benefit. Several gave examples of charitable and research support funded by memberships or subscriptions that were considered at risk such as research grant awards, organising conferences and other networking events, student support, knowledge transfer activities, etc., as well as activities associated with publishing. Some referenced the current financial impact of the Covid-19 pandemic as contributing to their concerns.

The activities of the [learned society], like those at most subject associations and learned societies are supported, in the main, by income from the sales of its journal. Revenue from subscription to our journal represents nearly 80% of our gross income and an even higher percentage of our net income. If our hybrid journal were to 'flip' to achieve OA through a green route with no embargo, revenue from sales would drop by 84%... As a registered charity, the [learned society] directs resources to pursue our charitable objectives and mission. Journal revenue is put in service of our subject and those engaged in its study and practice. With a significant reduction in income that would result from the implementation of the UKRI policy and a parallel REF policy, our [learned society], like most all others, would be forced to significantly reduce its service to those in our field. [Learned society which outsource publishing]

Currently our income is almost all derived from a combination of membership fees, event registrations and publishing revenue. The last of those generates between 50-60% of our annual turnover and is part of our well-established business model which sustains our charitable activities. Asking a small society to change our entire financial operation at relatively short notice a time of enormous global uncertainty poses a huge risk to our viability. [Learned society which outsource publishing]

Reduced APC income from UKRI authors taking the green route. We already have clear indications from some universities that they will be using only the green route. If, in addition, UKRI decides not to fund APCs in hybrid journals this effect will be even more pronounced. Since our Transparent Pricing Mechanism is based on volume of pay walled content (which includes green compliant articles) this will have the effect of driving up our subscription prices in later years. [Learned society with in-house publishing arm]

Smaller publishers would be financially disadvantaged by the proposed policies. We could potentially lose a large proportion of our subscription revenue if budgets are diverted to large Transformative Deals with the big five commercial publishers. [Publisher]

The UKRI OA policy proposal does not override third party rights but instead proposes ways in which these can be managed in an OA policy. However, a small number of respondents expressed fear over whether CC-BY licencing would limit the ability to recoup funds from third party materials reuse. One museum respondent felt that revenue will be lost if they cannot retain third party rights over images and other content that they currently charge costs for reuse of, income which is crucial to their role as a research organisation.

Financial benefits

Question 20⁸⁵ asked whether consultees felt *the proposals outlined in Section A will result in financial benefits for you or your organisation?* Although 87% answered the question, only one in nine (11%) of those answering felt there would be financial benefits. Most consultees said there will be no financial benefits from the proposed policy but identified increased costs, at least in the short term (see responses to question 19 above). Several said that it was difficult to judge this as it would depend on the how block grants or other mechanisms for funding operate.

The few open responses to this question that gave financial benefits primarily talked about this being in the long-term. A few consultees felt longer term subscriptions costs could decrease as a result of the policy. Some respondents to this question identified non-financial gains, e.g. improved accessibility and/or wider readership, and that these might have long-term financial benefits (see examples below).

⁸⁵ Question 20. Do you think the proposals outlined in Section A will result in financial benefits for you or your organisation?

There was potential for transformative deals to recoup some losses in future but little evidence of this was given at present. One HEI, in response to a later question, stated that one transformative agreement now available to them has covered £22,444 worth of APCs which they would not have been able to cover without the agreement (and they generally advocate for green OA).

Aside from reduced costs for accessing articles, a small number of other perceived financial benefits were considered, including increased visibility of work potentially making UKRI-funded individuals more competitive in subsequent work, other benefits of profile raising, and streamlined services for linking to or obtaining manuscripts saving time.

We may benefit from OA access to other funded research papers we might have previously paid for. More likely we will have access to more research papers we would not have previously paid for. [Business]

In the longer term, these proposals have the potential to benefit research institutions and researchers, in ways that presently may not be accurately estimated. If the transition to full and sustainable open access is satisfactory, institutions should see savings in subscription costs and should be able to afford publishing deals. This is highly dependent on the negotiating and policy effectiveness of UKRI and others regarding monitoring and constraining publishing costs. An increase in the number of publications that are highly visible and immediately available online will have indirect long-term financial benefits including increased visibility of the researcher/institution to industry partners and students and overall enhanced international reputation of the institution. [HEI]

Full Open Access to publicly funded research will disrupt existing publishing models, with the potential, in the long-term, to realise significant savings for institutions if they are no longer required to pay to access this content. This would be a substantial financial benefit for member institutions. We recognise, however that these benefits will not be realised in the short-term. [Library]

[Publisher] currently invest in our journal programme, i.e. we operate on a financial loss. If all of our journals were fully funded to OA and we were able to break even, we would benefit. Aside from this there are no other financial benefits. [Publisher]

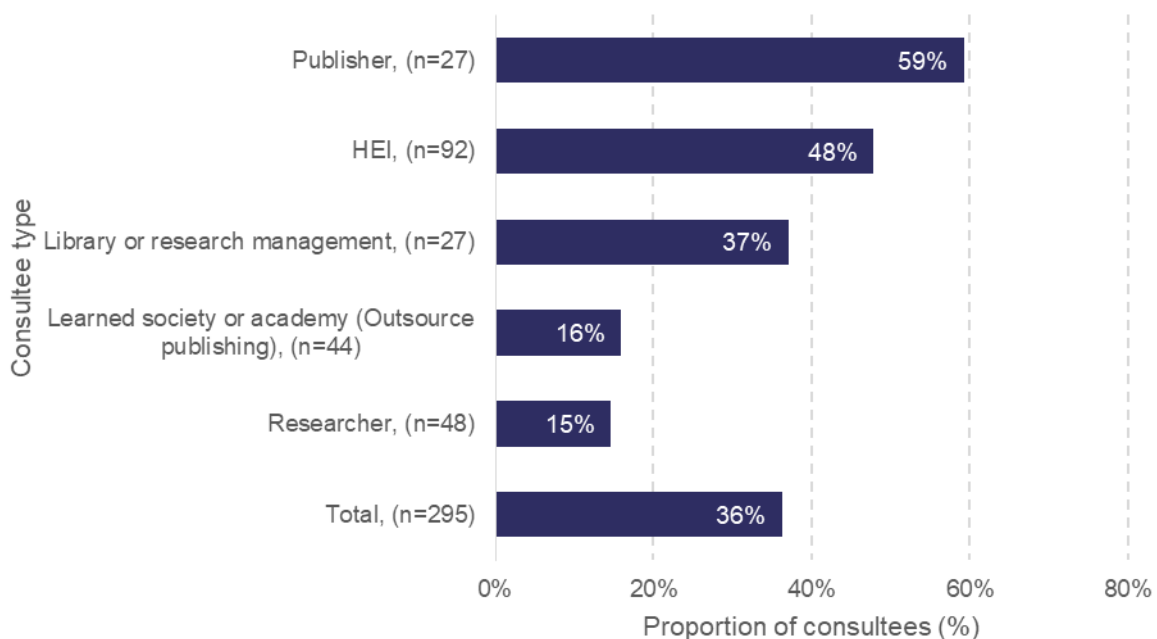
In the long term, journal subscriptions will be a thing of the past if Plan S is adopted fully. [Researcher]

Evidence of changing balance of costs

The consultation questionnaire continued by asking respondents whether they could *provide any evidence of a changing balance of costs across research organisations arising from an emphasis on publishing costs rather than read costs*⁸⁶. Eighty-four per cent of consultees responded with more than a third (36%) of these saying they could provide evidence. Representative from publishers (59% and HEIs (48%) were most likely to say they could provide evidence (Figure 23).

⁸⁶ Question 21: Can you provide any evidence of a changing balance of costs across research organisations arising from an emphasis on publishing costs rather than read costs?

Figure 23: Whether consultees could provide evidence on the changing balance of costs towards publishing costs from read costs by consultee type



Source: Consultee responses, March to June 2020

However, only a small number gave concrete examples with most citing costs and spending in recent years, estimates and a few referencing published articles on the subject. The few respondents that provided evidence generally demonstrated a rise in APC (and sometimes subscription) spending. This relates to an increase in the number of APCs being paid as well as an increase in the cost of APCs themselves. However, there are other factors considered, such as how research intensive an institution is, the ability of an institution to negotiate a beneficial Transformative Agreement, the extent of compliant routes offered by particular journals, and the associated administrative/ infrastructure costs to ensure compliance impacting any shifting balance of costs.

To date the benefits Finch proposed around cost neutrality of OA have not been realised. At [HEI] our subscription spend has gone up by 31% over the past 7 years to £5.155 million per annum. In addition, we now spend over £850k per annum on APCs. We are paying journal publishers 53% more per year than at the outset of the current UKRI OA policy. A significant proportion of this results from publisher inflationary practices and hybrid gold practices which have not offset OA costs against subscriptions at an institutional level. [HEI]

The evidence does not indicate a change in the balance of costs but rather an increase - well above inflation - in both pay to read and pay to publish. Since 2013/14, the first year of the RCUK block grant, APC costs have risen by an average of 9% per annum and subscriptions costs have risen by an average of 7% per annum. [HEI]

There is a changing balance of costs around the transformative agreements that [library] can sign up too. A recent [publisher] deal split the costs between read and publish. Existing subscription budgets covered the read element, but we do not have any surplus finance to cover the publish element. With a smaller institution such as [library] with a relatively low subscription budget and proportionally high APC costs, there is a stretch on our budgets to cover this emerging model of read and publish deal. [Library]

As a non-research intensive institution, our publishing costs in the traditional scholarly publishing environment were minimal. The majority of our institutional costs to date have been read costs. This is changing, in that we are seeing an increased cost burden toward payment of APCs to support gold open access publishing in cases where the green route offered by the publisher is non-compliant with the

existing REF OA policy, and where the journal is considered the most appropriate venue for publication. As the research profile of our institution grows, so too does the cost of publishing, further shifting the balance of costs toward publishing. As our institution is not in receipt of the OA block grant, this puts an additional strain on institutional finances, as we have not so far seen a proportionate decrease in read costs. [HEI]

One of the more frequently cited studies was UUK's 'Monitoring the transition to open access',⁸⁷ which found APCs increasing 16% in the period 2013–2016, when the Consumer Price Index (CPI) increased by 5%. It finds that APCs for hybrid journals were 28% higher than fully-OA journals, but also that hybrid costs increased 14% whilst fully-OA increased by 33% (p.39).

Other consultees cited examples of cost increases in their own departments or organisations, with most citing increased subscription costs and larger increases in APCs. Many described transformative agreements with publishers which involve a shift from subscriptions to 'read and publish' deals, with mixed responses as to the effectiveness of these in balancing costs.

Consultees felt the impact would be felt more by some than others as the balance of costs shift. Many HEIs, Learned societies and publishers expressed concern that larger and more research-intensive universities would be disproportionately impacted by a shift towards APCs.

There would inevitably be economic winners and losers in a shift towards publishing costs. We estimate that during the past three years over 60% of physics research articles acknowledging UKRI funding were produced by only 10 institutions. This illustrates the wider challenge of requiring a small proportion of research-intensive universities to take on the majority of publishing costs. Over the longer term there is and will continue to be a gradual shift in this direction as research-producing institutions increase their recognition of and financial support for OA publishing. However, to achieve a shorter-term transition to OA as set out in UKRI's proposed policy would require centralised and guaranteed funding to support publishing costs. The requirement to transition quickly without such central funding would result in a cost to research-intensive institutions that they will find extremely difficult to manage and may even lead institutions to prioritise certain types of research for publication on an OA basis at the expense of others. [Learned society with in-house publishing arm]

With less than 1% of the world population, as the UKRI consultation underscores, the UK accounts for 7% of global research publications. Should UKRI seek to accelerate a shift towards a system based on publishing costs instead of reading costs, the reading costs that are currently borne by a diverse worldwide audience of public and private sector subscribers will be increasingly borne by research-intensive states such as the UK, research-intensive institutions within the UK, and their primary research funders. [Publisher]

As a research intensive institution, the negotiation of transformative journal agreements has already increased costs for the university. For example, one agreement has increased by 9.45% in 2020 compared with the previous year; another deal under negotiation currently indicates a potential annual increase of over 20% for 2021. These deals bundle subscription and publication costs as part of a transition to full open access. With the bundling of such costs, compliance with UKRI policy is directly linked to continuing access to research materials across all disciplines, and in a market where cost transparency is still in need of significant improvement. For journals not covered by transformative agreements we anticipate an increase in costs for individual APC transactions. [HEI]

Transparency was felt an issue that affects reporting of evidence on this matter; some consultees had access to information on departmental budgets, a few were able to report at an institutional level, and some had detailed knowledge of publisher costs for specific journals.

⁸⁷ <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/monitoring-transition-open-access-2017.aspx>

Many consultees used this question to reaffirm earlier views given in previous questions about financial impact, in that they have seen no decrease in overall costs as yet with the shift towards APCs.

Evidence of cost increases

When asked if they could *provide any evidence on cost increases and/or price rises (including in relation to OA APCs and subscriptions) and reasons for these*⁸⁸, 84% of consultees responded to the question, 43% of which said that they could provide evidence. As noted above, many said that increases significantly outstripped inflation. Also as before, consultees cited the UUK study on the transition to OA,⁸⁹ and another study by Jisc on APCs.⁹⁰ Some consultees described details of their increasing costs or budgets for recent years, others provided links to publishers' costs online. Some examples of these responses are given in the boxes above.

Improving the transparency of publication charges

Consultees were then asked whether they thought there were *steps publishers and/or other stakeholders could take to improve the transparency of publication charges*⁹¹, of which 87% of consultees said steps could be made. A clear majority (75%) of consultees responding to this question said publishers could do more to improve transparency of publication charges; this included 73% of the publishers responding to the question. Most felt publishers should be open about their approaches. The current situation was described as being “*opaque*” (from a HEI, learned society and researcher), such that “*literally any transparency would help*” (researcher). A number of consultees from HEIs felt a more detailed breakdown of costs would allow institutions to make better informed decisions about value for money. Responses from journal editors echoed these points made by HEIs and researchers. Some respondents felt that small society publishers were more transparent than the larger companies. Increasing transparency was generally perceived to potentially contribute to a more effectively functioning market, and increased competition between publishers could drive down costs.

Suggestions to improve transparency in the publishing sector included:

- A single charge for OA and formal publication, with clarity around what is included for this charge
- Publishers providing a detailed breakdown of APC pricing and how these charges have been determined, in a consistent format to aid comparison. SHERPA could host this
- Disqualification of publication venues who do not adhere to principles of transparency (though no suggestion as to who would be responsible for implementing this)
- A table of charges offered by a publisher for authors to select against
- Aligning with cOAlition S price transparency frameworks⁹²

Whilst a wish for increased transparency was viewed as beneficial, a minority of consultees highlighted potential issues:

⁸⁸ Question 22. Can you provide any evidence on cost increases and/or price rises (including in relation to OA article processing charges (APCs) and subscriptions) and reasons for these?

⁸⁹ <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/monitoring-transition-open-access-2017.aspx>

⁹⁰ <https://www.jisc.ac.uk/reports/apcs-and-subscriptions>

⁹¹ Question 23. Do you think there are steps publishers and/or other stakeholders could take to improve the transparency of publication charges?

⁹² Reference given: <https://www.coalition-s.org/price-and-service-transparency-frameworks/>

- The ability to offer transparency and innovative cost options would depend on publisher size – larger publishers have more access to transformative agreements
- Publishers felt that the range of all publishing costs were not always well understood by researchers or authors, so might it might be challenging to implement a format that is relevant to all
- Costing publishing is complex and it is difficult to account for indirect costs in a cost-per-article pricing structure

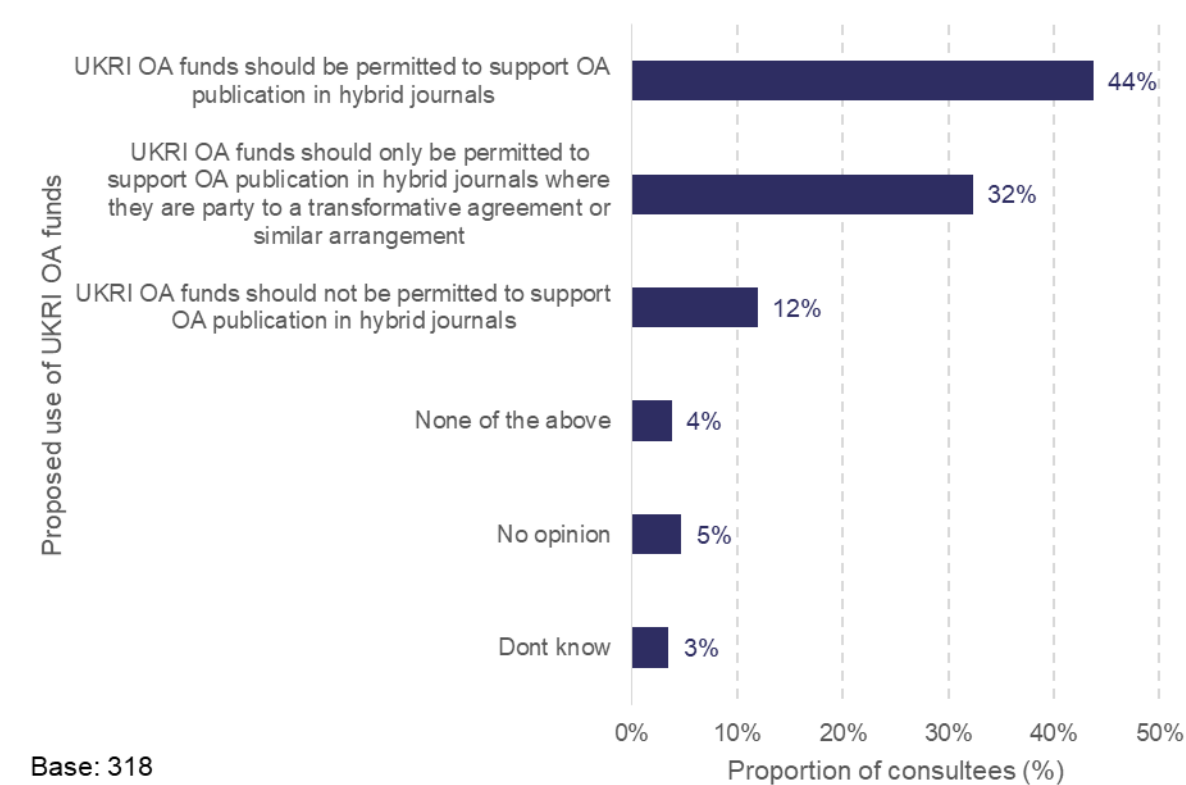
Views on publication through hybrid journals

Hybrid open access is a model where subscription-based journals allow authors to make individual articles gold open access upon payment of an APC. UKRI is considering whether it should stipulate that any OA funding it provides should only be used for OA costs in fully OA journals and publishing platforms, and not hybrid journals unless they are part of a transformative agreement or similar arrangement.

Consultees were asked to choose a preferred option from three regarding *UKRI's consideration about restricting the use of its OA funds for publication in hybrid journals*⁹³, of which more than nine in ten (91%) did. Around nine in twenty (44%) consultees who responded to the question said *UKRI OA funds should be permitted to support OA publication in hybrid journals*. This was nearly four times greater than proportion stating OA funds should not be used for this purpose (12%, Figure 24). However, a third (32%) felt that this should be permitted, but only with a Transformative Agreement or similar in place, indicating that 44% overall support unrestricted use of funds for hybrid journals and the same proportion feeling this should be restricted.

⁹³ Question 24. Regarding UKRI's consideration about restricting the use of its OA funds for publication in hybrid journals (see paragraph 80 of the consultation document), please select the statement that best reflects your views...

Figure 24: Consultees views on restricting the use of its OA funds for publication in hybrid journals



Source: Consultee responses, March to June 2020

Table 9 overleaf shows the favoured position differed by consultee type. Learned societies with an in-house publishing arm (82%), learned societies which outsource publishing (83%), publishers (70%) and, to a lesser extent, researchers (41%) felt *UKRI OA funds should be permitted to support OA publication in hybrid journals*. Representatives from HEIs (58%) and libraries (62%) felt differently as most selected the option that *UKRI OA funds should only be permitted to support OA publication in hybrid journals where they are party to a transformative agreement or similar arrangement*.

This question of hybrid journals was also a significant variable in Logit models comparing the views of publishers and all categories of learned societies⁹⁴ against all other consultees. The odds of a consultee from either group selecting *UKRI OA funds should be permitted to support OA publication in hybrid journals* were higher compared to other consultees. The models show that responses to this question helped define how publishers and learned societies thought about the consultation as a whole.

⁹⁴ Learned societies or academies with an in-house publishing arm, those that outsource publishing and those that do not publish at all.

Table 9: Consultee views on the restriction of the use of UKRI OA funds for publication in hybrid journals by consultee type

Regarding UKRI's consideration about restricting the use of its OA funds for publication in hybrid journals, please select the statement that best reflects your views:		HEI	Learned society or academy (Outsource publishing)	Researcher	Publisher	Library or research management	Learned society or academy (In-house publisher)	Total
UKRI OA funds should not be permitted to support OA publication in hybrid journals	n	9	1	10	6	3	1	38
	%	10%	2%	20%	20%	10%	6%	12%
UKRI OA funds should only be permitted to support OA publication in hybrid journals where they are party to a transformative agreement or similar arrangement	n	54	5	10	0	18	1	103
	%	58%	9%	20%	0%	62%	6%	32%
UKRI OA funds should be permitted to support OA publication in hybrid journals	n	20	44	20	21	5	14	139
	%	22%	83%	41%	70%	17%	82%	44%
None of the above	n	4	0	4	1	1	0	12
	%	4%	0%	8%	3%	3%	0%	4%
Don't know / no opinion	n	6	3	5	2	2	1	26
	%	6%	6%	10%	7%	7%	6%	8%
All answering consultees	n	93	53	49	30	29	17	318
	%	29%	17%	15%	9%	9%	5%	100%

There were also fairly strong statistical relationships between views about hybrid journals and two other questions.

- Consultees representing publishers and learned societies were much more likely than others to disagree that a CC BY licence (or OGL where needed) should be required for article copies placed in a repository⁹⁵: around half of publisher and learned society consultees strongly disagreed with this statement (see more detail on these responses under Section 3.2 for deposit requirements and Section 3.3. for licensing).
- Consultees from learned societies were also more likely to suggest a later date for the application of OA policy⁹⁶. More than seven in ten (72%) said UKRIs OA policy *should apply later than 1 January 2022* compared to two in five (39%) of all consultees. Also see Section 3.5 for more information about policy timing.

Reasons to support using UKRI funds for publication in hybrid journals

Many supporters of the position that *UKRI OA funds should be permitted to support OA publication in hybrid journals* voiced concern about the danger of restricting choice of where to publish, noting hybrid journals (not subject to transformative agreements) are common in many fields. They also identified a risk of inadvertently creating a two-tier split between journals, with “top tier” (often international) hybrid journals becoming inaccessible to UK researchers if they were deemed non-compliant. A small number interpreted (or explained their reasoning as) the proposed policy as a potential ‘ban’ on publishing in hybrid journals, suggesting that this may need clarification.

Authors perceived risks to academic freedom with limited choice if publishing in hybrid journals is not funded, and wished to retain currently available publishing options. Given that OA is being established, they preferred options to remain open in order to continue dissemination in widely-read, high-impact journals whilst allowing cultural practices to transform OA through gradually replacing subscriptions with APCs. It was also stated that hybrid journals serve a purpose in offering a publication route for non-funded authors, in particular those who may be publishing after the end of the grant or moving institutions. Most comments that gave examples of this impact cited the importance of hybrid journals to AHSS disciplines and subjects.

We strongly argue that hybrid journals are an important part of a diverse publishing ecosystem, delivering progress towards Open Access: articles published under the green route are publicly available. Most humanities journals are hybrid journals, and this will remain the case for some years, even with transformative deals, because the route to OA journal status is less clear for smaller publishers. UKRI funding should not be used to benefit one part of the sector - the larger well-established businesses for example - at the expense of smaller publishers. [Learned society which outsource publishing]

The hybrid journal serves a useful mechanism for HSS disciplines in particular, as it is in these fields that we, like other publishers, have struggled to establish full OA venues due to the nature, size, and selectivity of typical HSS journals. [Publisher]

There are no transformative agreements in place across the entire field of drama and speech and very few open access journals. This holds true for other fields of research as well. To ban hybrid journals altogether would be heavy-handed; to accept those on a transformative agreement would encourage OA in a positive fashion. [Representative body]

In view of the very limited current compliance with immediate OA in Arts, Humanities and Social Science journals, and the lack of clarity about how immediate OA can be funded for the majority of research (non-UKRI funded) across our many AHSS disciplines, we believe hybrid journals will have to play a

⁹⁵ Q7. To what extent do you agree or disagree that where compliance with UKRIs OA policy is achieved via a repository, a CC BY licence (or Open Government Licence where needed) should be required for the deposited copy?

⁹⁶ Q17. UKRIs OA policy is proposed to apply to in-scope research articles accepted for publication on or after 1 January 2022. Which statement best reflects your views on this

role in the OA transition, and that a blanket decision not to fund publication in such journals would be counterproductive. [HEI]

Respondents with a commercial interest in publishing, as well as some from other groups, largely supported hybrid journals and felt that there was a risk to the commercial viability of small publishers and some journals if the use of UKRI funds to publish in hybrid journals was restricted. Many of these respondents expressed the opinion that these journals supported the aim of UKRI's OA policy and should therefore be a compliant route that UKRI funding could be used for.

The rationale for requiring transformative agreements

Those who preferred the option that *UKRI OA funds should only be permitted to support OA publication in hybrid journals where they are party to a transformative agreement or similar arrangement* were predominantly consultees representing HEIs or libraries. The main rationale for supporting this option was that it supported acceleration towards Open Access while recognising that there are practical considerations to take into account. These respondents raised concerns with the hybrid model, such as higher administration and subscription / APC costs associated with hybrid journals compared with other OA routes, outlined further below, but also noted that hybrid remains one of the most popular routes used by authors, and until all journals become full and immediate open access, excluding the option of hybrid journals completely was thought too restrictive in terms of authors' choices, particularly in AHSS disciplines. There was also strong support for this position as it aligns with Plan S and other funders, therefore contributing to a more coherent wider policy approach to hybrid journals and further encouraging transition. Most respondents did not argue in support of transformative agreements themselves, but in support of hybrid journals where party to a transformative agreement or similar arrangement as a necessary next step in the transition towards full OA.

OA funds should only be permitted to support OA publication in hybrid journals where they are party to a transformative agreement or similar arrangement. Ceasing to support publication in hybrid journals altogether at this stage would not take into account researchers' publication choices and would not acknowledge transitional models or any other initiatives in progress that seek to move away from the subscription model. For this option to be implemented, a clear indication on which transitional/transformative agreements are supported by UKRI would be necessary. [HEI]

The transition to a fully Open Access landscape is complex and will require time for adjustment. Hybrid approaches should be permitted in the short-term, in line with the principles of Plan S. [Researcher]

Publication in hybrid journals is still the most expensive route to open access. However, it is also currently one of the most popular routes for UK authors; [our] data shows that with 65% of articles for which an APC was levied were published this way. Although hybrid OA was developed to help publishers transition to OA, away from subscriptions, the number of journals which have made this transition is trivial.⁹⁷ Hybrid journals have also been the most problematic in terms of fulfilling the OA conditions we require. For example, analysis of the 2017-18 COAF data⁹⁸ identified 348 articles for which APC had been paid (at a total costs of £823,635) but which were not compliant with our requirements; 93% of these non-compliant articles were published in hybrid journals. As such, [funder] has determined – in line with Plan S – that it will no longer support OA publication fees in subscription journals ("hybrid OA"), unless those journals are party to a transformative arrangement (such as a Jisc-approved Transformative Agreement) or a cOAlition S-approved, Transformative Journal. We urge UKRI to adopt a similar position. [Research funder]

⁹⁷ Respondent gave the following link http://oad.simmons.edu/oadwiki/Journals_that_converted_from_TA_to_OA

⁹⁸ Respondent gave the following link <https://wellcome.ac.uk/funding/guidance/open-access-guidance/wellcome-and-coaf-open-access-spend-201718>

Reasons for not funding publication in hybrid journals

Those that did not support the use of UKRI funding for hybrid journals tended to oppose the hybrid model in principle. They point out the unfairness of 'double dipping' business models and question the value and efficiency of this which diverts funding away from related services and systems such as libraries. Further arguments against hybrid journals include statements that they offer poor value for money, they are more expensive, they are not truly OA and that they impose too restrictive conditions on authors. Others said that with the end goal of transformative agreements being full OA, then this is only desirable if there are no barriers to publishing in these journals, that is, they can only be 'transformative' if per-article charges are removed. An example of the potential downsides to supporting hybrid journals is given from one of the few publishers in opposition.

We understand this position takes a hard line, but we believe that while the inclusion of transformative agreements has the aim of encouraging publishers to transition to Open Access, we fear that there are two unintended consequences: 1. Some publishers will begin to transition, but will then, in this transitional state, seek to extend the deadline. This will consequently maximize the strong market position of moving one captive budget (subscriptions) into another (OA) during the transition, which may keep problematic profit margins and price increases baked into these deals. 2. Fully, or native-OA publishers who are already compliant and who have helped pioneer the OA sought by the UKRI policy will be disadvantaged by the captive budget commanded by transitioning publishers in transformative agreements. [Publisher]

Whether UKRI funds should support OA costs for institutional repositories

Question 25 of the consultation asked: *To what extent do you agree or disagree that UKRI OA funds should be permitted to support OA costs that support institutional repositories?*⁹⁹ Nearly nine in ten (87%) responded.

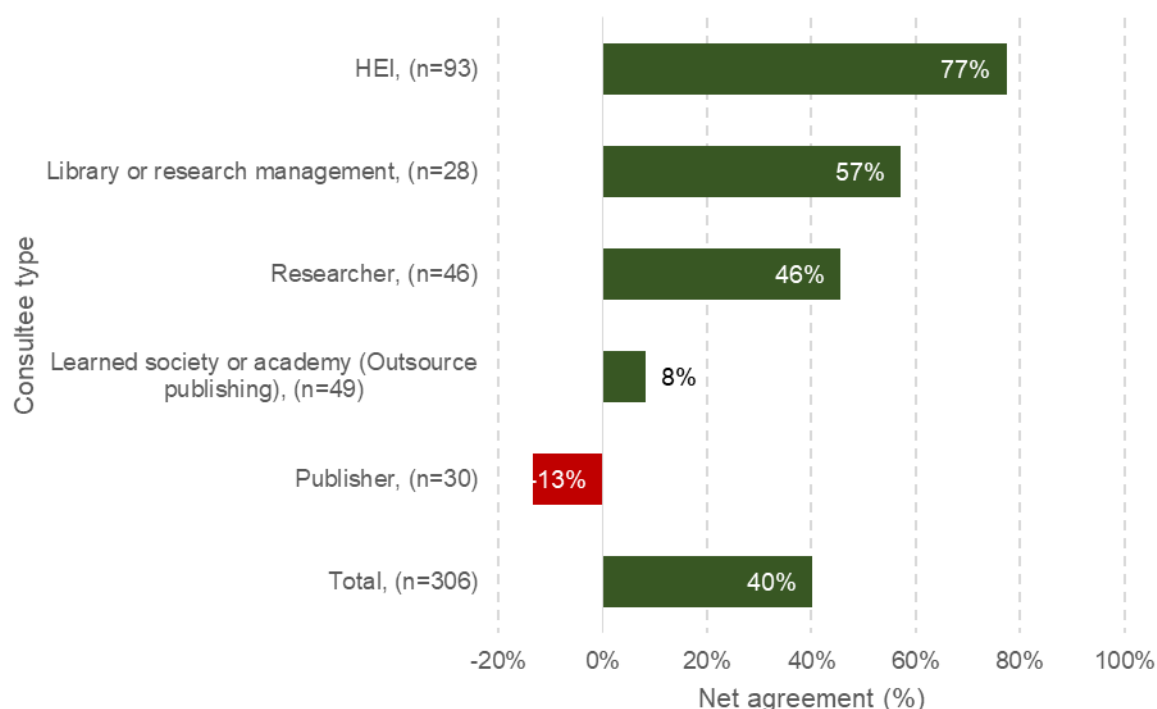
More than half (54%) of consultees responding to this question agreed or strongly agreed that *UKRI OA funds should be permitted to support OA costs that support institutional repositories*. One in seven (14%) disagreed and a further one in seven (14%) were neutral. The remainder had no opinion or selected "don't know".

Figure 25 shows the net agreement¹⁰⁰ with this proposition by the capacity of the consultee response. The figure shows consultees representing learned societies were less likely to agree in using UKRI funds to support institutional repositories; more publishers disagreed than agreed with this proposition.

⁹⁹ Question 25: To what extent do you agree or disagree that UKRI OA funds should be permitted to support OA costs that support institutional repositories?

¹⁰⁰ Where net agreement is the total proportion who disagree or strongly disagree with a statement subtracted from the total who agree or strongly agree

Figure 25: Net agreement from consultees on using UKRI funds to support institutional repositories



Source: Consultee responses, March to June 2020

Reasons for UKRI funds supporting institutional repositories

Taken as a whole, consultees were more likely to agree than disagree with this proposal. Largely it was felt that repositories are a key infrastructure mechanism to delivering the policy and enabling OA, therefore OA funds should be available to support this. Respondents felt that maintaining repository infrastructure can be costly in terms of staff expertise as well as the necessary investment in software and other digital aspects of the infrastructure (particularly if suggested technical requirements were to be adopted). It was suggested that funding would help to alleviate these costs and help to ensure long-term access and sustainability, and enhance functionality to aid discovery.

Permitting OA funds to be used for institutional repositories was also considered by respondents as a way to reinforce the importance of the green route, which has the potential to support and encourage further uptake of the policy. Without this, OA funding would be prioritising gold OA which many felt would be exclusionary to those who would only be able to comply through the green route.

Consultees from HEIs, libraries and individual researchers gave the most responses in support of this proposal. These cited increasing pressure on university and library budgets limiting the available resource to fund repositories, particularly if a) upgrades were required and b) these repositories became more extensively used as a green route to OA. A smaller number stressed that this was particularly pertinent given the financial pressures likely to face HEIs as a result of Covid-19. HEIs further reported that if they were to be responsible for compliance through a repository, then financial support would be needed.

The main argument in support of the use of funds was that repositories are essential infrastructure for the move to OA. Other reasons of support provided included:

- It is UKRI's responsibility to provide this funding if they are to be included as a compliant route
- There is a need for funding to support the establishment of infrastructure, software, staffing and systems; in many cases upgrades are currently required
- It would provide longer-term stability for institutional repositories
- Institutions could collaborate to support each other and share resources
- It could drive down publisher charges by reducing the need for these costs
- It would be a better use of funds than commercial profit to publishers
- It would signal support for OA in general, in contributing to a strengthening of the institutional repository network as a key part of the OA infrastructure
- It would support disciplines that have less reliance on regular journal publishing, e.g. creative subjects

We strongly agree with this idea, and feel that it would be key for smaller institutions that may have less or no budget for repository improvements, to further develop or resource their repository infrastructure. For instance, at [HEI] we are hoping to be able to subscribe to DataCite in order to mint DOIs and register our metadata. If UKRI were to permit funds being spent on repository development then this would be something that we could do immediately and would provide an instant improvement to the discoverability of our outputs - journal articles and beyond. This kind of funding would also enable institutions to potentially facilitate and engage with Open Access through a wider array of actions than simply making APC payments, and would indicate a support for - and facilitate in a concrete way - more experimentation where smaller institutions may feel unable, or unsupported, to do through their own institutional budgets. [HEI]

[HEI]'s open access team currently spends around 320 hours a month processing around 1,500 deposits to [HEI]'s repository. Recent [HEI] estimates show that new green deposits require up to 7 minutes (50% of deposits, simple to process), up to 12 minutes (40%, more complex) or up to 17 minutes (10%). These timings may increase with additional licensing and technical requirements for repositories. At present, systems such as Jisc Publications Router are not widely used and do not save institutions any time. Funding to cover the proportion of staff time spent on UKRI-funded green deposits is necessary. In addition, on a day-to-day basis at [HEI], three members of staff advise on and process gold transactions. The majority of their time is spent advising UKRI-funded authors. This requires expert staff who are familiar with funders' requirements and publishers' processes. [HEI]

Reasons against UKRI funds supporting institutional repositories

Arguments against this proposal centred around two concerns. Firstly that funding infrastructure like this would direct funding away from research activity and reduce the amount available for article publishing charges (APCs) and therefore the quantity of gold OA VoR outputs. Secondly, funding many individual repositories would not be a good use of public funds due to a duplication of effort.

Those with a stake in the publishing industry (publishers, learned societies which publish in-house or outsource publishing) gave the most responses against this proposal, critiquing institutional repositories and preferring funds to be used to support gold OA publishing. Discipline- or subject-based repositories were suggested as an alternative to institutional repositories.

Reasons provided not to allow OA funds to be used for repositories include:

- It would be better to develop a national repository, or national repositories for different disciplines

- Other (e.g. subject) repositories already exist
- Institutions should be responsible for funding their own repositories and staffing

Other considerations relating to the support of institutional repositories included:

- It would be hard to demonstrate funding used specifically for UKRI projects (repository will support non-UKRI funded outputs too) – this could be misused, so clear guidelines would be needed.
- There should be more quality control/oversight for repositories in receipt of funding, to ensure that they meet technical standards.
- How this funding would be administered: e.g., block grant (though this would be detrimental to universities with no or a small block grant but who would still need to put the same investment into maintaining a repository) or a wider funding stream. It was stressed that this needs to be an equitable process regardless of size or research intensity of the HEI. Either option would need to be longer term than the current year-on-year funding cycle.
- Whether this should extend to subject as well as institutional repositories.
- The need to develop this aspect of the policy in consultation with HEIs and Jisc.
- Thoughts on whether funding should be used for this were closely tied to more general feelings on the need for (and strengths/weaknesses of) institutional repositories.

Any other restrictions on how UKRI funds can be used

Eighty-six per cent of consultees answered Question 26: *To help accelerate policy adoption, should UKRI introduce any other restrictions on how UKRI OA funds can be used?*¹⁰¹ One in six (18%) said UKRI could introduce further restrictions but more (39%) argued against. A quarter (24%) of consultees who answered said they had no opinion and nearly one in five (19%) gave a "don't know" response.

Most argued against further restrictions and cited institutional and individual freedom in deciding how to use their funds. Examples of what they might fund include APCs, staff costs and being able to adapt to changing needs in support of the move towards OA. Some consultees noted the changing balance of costs (see earlier), particularly the change to APCs as part of transformative agreements.

The one in six responding consultees answering this question who supported further restrictions (typically publishers or HEI representatives) gave few suggestions. HEIs and libraries who gave open responses mostly referenced non-APC publishing costs, such as charges for colour reproduction and amendments to articles, with some pointing out these are a relic of print technology that should not apply to digital publishing (although it was also acknowledged that restricting funds for this use would not necessarily prevent such charges).

Publishers supporting restrictions were generally in favour of these contributing to the uptake of gold OA and for them being focused on achieving OA with the Version of Record (VoR). They suggested focusing on funding to support this as a way to aid publishers to progress OA, and generally argued for firm funding restrictions for gold OA with tight compliance and reporting. Some of the consultees argued for funds to be restricted to support of publishing gold OA in OA only

¹⁰¹ Question 26: To help accelerate policy adoption, should UKRI introduce any other restrictions on how UKRI OA funds can be used?

journals and for there to be close monitoring, and did not support funding of gold OA in hybrid journals as this would extend the transition time to full OA.

Consultees suggested a few restrictions but generally provided broader comments in relation to the subject, including:

- Clarity of policy and education would be more effective than imposing restrictions that, in their view, would increase administrative burden and may hinder progress towards OA
- Limiting restrictions might support novel creative solutions
- Encourage institutions to produce an 'impact statement' to demonstrate how use of OA funds have contributed to the acceleration of policy adoption
- Clarity needed around any transition period, perhaps with phased restrictions

Alternative business models and funding mechanisms to support OA

Eighty-seven per cent of consultees responded to Question 27: *Are there changes or alternatives to the present UKRI funding mechanisms that might help support a diversity of OA models?*¹⁰² Around half (48%) of consultees answering said there were changes or alternatives and consultees gave a wide variety of suggestions, for which some common themes were identified. Publishers (69%) and HEIs (65%) were especially likely to offer alternatives.

Responses in this section related to both supporting infrastructure as well as funding mechanisms when considering the range of business models that could be supported. One of these was the idea of collaboration or partnerships with existing organisations that support OA. The Open Library of Humanities¹⁰³ was frequently cited by these consultees as one such successful model that could support researchers in AHSS “*who may not have the same channels of support for APC payments as STEM*” [HEI]. An example response about the OLH articulates the benefits of this particular business model:

Yes, we are an institutional supporter and regular funder of the Open Library of the Humanities platform that has no author-facing article processing charges. This alternative publishing business model should be encouraged, funded, and possibly rolled-out across other disciplines. We also provide a suite of open access journals through our Open Journal Systems Platform at [HEI]. We publish peer-reviewed academic research in museum studies, physics, education, Middle Eastern studies, media and communication, and interdisciplinary topics. As there are no charges for our authors to publish in these venues (cost is supported by the library) it may be useful to ring-fence some of the OA block grant to enhance and support these alternative business models. [HEI]

Other OA models and venues referred to in responses to this question included the Wellcome Trust's Open Research platform,¹⁰⁴ Open Book Publishers,¹⁰⁵ SciPost,¹⁰⁶ Language Science Press,¹⁰⁷ and the forthcoming publishing platform from the European Commission.¹⁰⁸ The reported

¹⁰² Question 27: There are many business models that can support OA. A common model for journals is based on APCs, but there are also other models (such as membership models and subscribe to open). Are there changes or alternatives to the present UKRI funding mechanisms that might help support a diversity of OA models?

¹⁰³ <https://www.openlibhums.org/>

¹⁰⁴ <https://wellcomeopenresearch.org/>

¹⁰⁵ <https://www.openbookpublishers.com/>

¹⁰⁶ <https://scipost.org/>

¹⁰⁷ <https://langsci-press.org/>

¹⁰⁸ https://ec.europa.eu/info/news/european-commission-awards-contract-setting-open-access-publishing-platform-2020-mar-20_en

benefits of these models, for example, included their offer of a “*fast, open, transparent and cost-effective way in [which] research findings can be shared*” [HEI] and that they do away with APCs – a common cause for concern amongst such consultees. These models generally included membership fees determined by organisation size rather than per-article charges, with immediate availability of outputs.

Some suggested that UKRI should establish its own OA platform or should consider directly investing in existing platforms. A number of consultees called for greater support for Read & Publish deals, but a minority wanted to avoid this approach. Consultees representing AHSS in particular highlight the growth of online OA journals in their field, and suggest that these should be built on and supported, as illustrated by the response below:

The social sciences and humanities have seen an increase in recent years in lean, online-only, open-access journals. Some of these have been supported by block-grants and then have moved to a donation-supported system. Others are supported by a very small fee charged on submission of an article. And yet others maintain such reasonable budgets that their running costs can be supported by learned societies without further funding proving necessary. The barrier to entry into this market seems to be start-up funds, since building out the journal's look and systems is far more time- and resource-intensive than maintenance. UKRI should consider providing start-up funding to support the creation of lean, online-only, open-access journals that can then adopt innovative models of ongoing support. Increased competition in the journal sphere should then drive down the costs of more traditional OA providers. [Learned society which outsource publishing]

Consultees requested flexibility in approach and support for a variety of different models to maintain a diverse community of practice, “including but not limited to APC-based, platform-based, and transformative models” (publisher). The desire to get away from existing APC-based models was strong throughout responses to this question due to associated issues of inefficiency, expense, and administrative burden.

Other points raised included:

- Need for more consultation and planning to ensure a diverse set of models are available, particularly to incorporate humanities – models need to be sustainable, so build time for testing and learning
- Be open to innovation; acknowledge that alternative models are still evolving and digital advances are continuing
- Funding should be used to support membership organisations’ existing infrastructure
- Consider the sustainability of support for any model, e.g. ring-fenced block grant / QR funding
- A centrally-funded model would help address variability of available funding for current options
- Permit institutions to use grant funds flexibly. This could include membership and subscription models, or alternative models such as partnership or consortium models based on discipline and need
- Fund publishers and publishing learned societies directly instead of grants for individual institutions

Transformative agreements and other cost-effective ways to manage the transition to OA

Consultees were asked whether there are *approaches to managing transformative agreements or other mechanisms and developments that UKRI should consider to help manage the transition to*

*OA in a way that is cost-effective and offers public value to the UK?*¹⁰⁹ Eighty-five per cent of consultees gave an answer to question 28 with more than half (53%) stating there were cost-effective approaches to manage the transition to OA.

However, only a minority gave concrete examples in open questions and there was little consensus in these views. There was some agreement amongst AHSS researchers that their subjects have different requirements to STEM subjects, alongside concerns that STEM may take priority in negotiations to establish transformative agreements. These concerns are echoed by those representing early-career researchers, smaller publishers and traditional university presses. They suggested that AHSS early-career researchers are at risk because they spend significant time outside contractual frameworks that offer access to transformative agreements. Publishers, particularly smaller ones, noted that they rely on a diversity of funding models to manage pathways to OA, and they urged UKRI to avoid consolidation of funding to large commercial publishers engaged in transformative agreements. Smaller publishers may not be able to transition to OA at the same pace as larger ones. Researchers and institutions requested that there should be flexibility and freedom to choose publishers as appropriate for their field.

Suggestions on managing transformative agreements and the transition to OA included:

- Consultations/discussions between all stakeholders; partner with Jisc, publishers and institutions
- Researchers and institutions reported need for flexibility and transparency, particularly from publishers
- A database to track transformative agreements and the publishers involved
- Clarity is needed around what constitutes a valid transformative agreement (although consultees did not state any specifics that needed clarification)
- UKRI block grants should fund Read & Publish deals and such deals should be widespread and consistent
- One transformative agreement requirement could be accurate data on subscription and APC expenditure in advance
- Consider how funds could be used to incentivise a break from legacy publishing models and a move towards innovation in OA; UKRI align their policy with European funders to transform rewards for researchers; the San Francisco Declaration on Research Assessment (DORA)¹¹⁰ was referenced.

3.6.2 Monographs, book chapters and edited collections

Views on funding levels, mechanisms and costs

Nearly two-thirds (65%) of consultees responded to question 53 which asked: *Do you have any views regarding funding levels, mechanisms and eligible costs to inform UKRI's considerations about the provision of funding for OA monographs, book chapters and edited collections in-scope*

¹⁰⁹ Question 28. As discussed in paragraph 74 of the consultation document, transformative agreements are one way of moving to OA in a more cost-effective way. Are there approaches to managing transformative agreements or other mechanisms and developments that UKRI should consider to help manage the transition to OA in a way that is cost-effective and offers public value to the UK?

¹¹⁰ A worldwide initiative to improve the ways in which scholarly outputs are evaluated. See <https://sfidora.org/>

of its proposed policy?¹¹¹ Seven in ten (70%) said they had a view including 85% of HEI representatives that answered and 82% of publishers.

Similar issues to those raised in earlier questions concerning financial impacts and balance of costs were alluded to here. For example, the need to consider those not/no longer in receipt of block funding (such as researchers who move institution and still wish to publish from UKRI-funded research), potentially high BPCs (although UKRI's proposed policy remains agnostic towards business models for OA), and ability to meet third-party copyright costs. Considerations specific to long-form outputs included:

- Limited (and potentially costly) options for OA publication of monographs, including extra workload to administer and comply
- Longer lead-in times for monographs including the extended duration of the writing, editing and publishing process and the delays that can occur
- Some publishers may continue to not permit some output forms to be made freely available
- Particular impact on AHSS disciplines as long-form works make up a large proportion of outputs.

Several highlighted that OA monograph publishing in particular was still a relatively untested area and little was known about how a sustainable model for this might be developed in the future. Respondents encouraged UKRI to take time to consider the options for this aspect of the policy.

We cannot ignore the central problem that full OA must either be directly funded or must be achieved through new business models that have not yet been developed. [HEI press] is already working on new approaches. OA book processing charges (equivalent of APCs for journal articles) are not a desirable or sustainable model, but may temporarily be required to allow books to be made OA while new, better approaches are adopted. [HEI]

While groups such as Knowledge Unlatched and individual publishers have experimented with Open Access for books, none have as yet proven to be a scalable, sustainable business model that would allow publishers, including society publishers, to offer pure Open Access books at a price within the reach of researchers, though several member societies are keen to experiment with such models. [Representative body]

Consultees offered a number of suggestions for consideration. These mostly centred on how to fund BPCs, with three main mechanisms suggested:

- Allowing costing within grant applications. One researcher suggested that this would make researchers think about their publication plans. One learned society (which outsource publishing) suggested that these funds be held by the Research Council, rather than allocated to the PI/institution.
- Increases to and ring-fencing of block funding specifically for long-form outputs. There was the suggestion that this would have provisions for fees above the usual limit to reflect costs. Respondents suggested that this type of fund should be separate to that for journal articles, and should also factor in funding to implement a longer-term, sustainable OA strategy at an institutional level. For example a block grant allocated to institutions might be preferable to direct payments, as authors will naturally seek advice with their local/institutional OA team.

¹¹¹ Question 53: Do you have any views regarding funding levels, mechanisms and eligible costs to inform UKRI's considerations about the provision of funding for OA monographs, book chapters and edited collections in-scope of its proposed policy?

- Publishing fees to be paid by UKRI after contracts are agreed, similar to the current Wellcome policy. Sixteen respondents (mostly HEIs) supported a policy of this type, as well as Wellcome themselves. One learned society (with an in-house publishing arm) suggested that all in-scope publications should be eligible for this central fund.

We would recommend that as an alternative [to a block grant], UKRI explores a model similar to that of the Wellcome Trust, where authors notify the funder directly at the point a publishing contract is finalised and an indication that a cost will be payable, and that upon publication, the administration of payment of the charge is handled by UKRI directly. [HEI]

If there were a centralised system for the prompt and straightforward delivery of adequate funding to publishers, and this were guaranteed for all in-scope publications, we could consider moving to offer gold OA for books. [Learned society with in-house publishing arm]

There was no unanimous preference for any of the above suggestions, and all were caveated by other considerations such as:

- The lead-in time from award start/end date to monograph publication. Books are normally published after the grant end date and some respondents suggested that funding should be available after this period. Respondents also suggested that funding should be committed in advance, or block grants committed across a number of years, to allow continuity of planning.
- Action/s to take if an author moves institution before they have published their book. One learned society (with an outsourced publishing arm) suggested that OA costs, if included in a grant, should be portable with the applicant should they move institution, and for these costs to remain available until invoiced by the publisher (i.e. that this element of the grant remains open beyond the conclusion of the funded research itself).
- Several respondents suggested that if BPCs are eligible for OA costs, services, then publishers need to be transparent and open about the services that they offer, and how these costs are calculated. This was supported by researchers, HEIs and some publishers.¹¹² See Open Book Publishers Authors' guide. There was some suggestion to cap BPC costs covered by a block grant. A narrow expectation on use of block grants for BPCs could have the unintended consequence to siphon off research funding to publishers to pay for OA fees

Some learned societies and several publishers stressed the importance of the 'true' cost of publishing, and the service provided by presses e.g., overheads, staff costs, archiving, managing backlist, promotion, marketing, stock management, website management and the support for authors with messaging, promotion and dissemination.

Other respondents, mostly from HEIs, stated that the existing BPC model was unsustainable and continuing to fund these would not allow for other models to emerge. There was support for UKRI considering how to encourage alternative models and low or no cost compliant routes to counter the current model, but few suggestions were given on how exactly this could be achieved, with some detailed below. See also the funding discussion under Section 3.7.2 for more detail.

There was also broad support for UKRI encouraging innovative outlets; one publisher suggested a pilot fund should be available during a voluntary phase, where business models could be tested. There should also be funding to invest in innovative approaches such as Open Library of

¹¹² Resources provided by consultees that related to calculating OA costs included the Ithaca study 'The costs of Publishing Monographs' (2016), available at: <https://sr.ithaka.org/publications/the-costs-of-publishing-monographs/>; the Association of University Presses (AUP) costing tool, available at: <https://aupresses.org/resources/costing-tool/> and the Open Book Publishers Authors' Guide, available at: <https://www.openbookpublishers.com/section/86/1>.

the Humanities (although OLH publishes journals, rather than monographs) and Knowledge Unlatched (KU). Opportunities presented by the outcomes of the COPIM project were also mentioned. Funding to support DOAB and to develop SHERPA services was also welcomed.

UKRI should also consider a direct investment in open access book publishing initiatives it considers to be of current interest or potential future interest to UKRI researchers. The results of the COPIM project should indicate potential opportunities. [Library]

It would seem more efficient and indeed effective for UKRI to create a platform for authors to submit OA documents to. A platform that institutional repositories can pull data and AAMs. The Chronos Hub provided by the Gates foundation is a good model.¹¹³ [HEI]

We believe this policy should not simply funnel public money to pay Book Processing Charges for individual books. We have long argued that the BPC is an inequitable and unsustainable way to fund OA. It transforms a barrier to access into a barrier to participation and, if normalised, would restrict OA publication to the wealthy. [Publisher]

BPCs should not be, and likely cannot be, the primary route to achieving widespread open access to books. The recognition that multiple routes need to be explored is welcome. We support the possibility of a repository-enabled route to compliance with the proposed policy, leveraging the skills and infrastructure that HEIs have built up over recent years to achieve open access to articles through repositories. [HEI]

UKRI could consider establishing a pilot fund that would be available during a voluntary phase to allow business models to be tested in the market, and which could inform future funding needs. [Publisher]

We would prefer to see UKRI fund projects that lead to innovative new approaches to OA book publishing. Such projects should not recreate existing models or unsustainable approaches, but could support genuine innovation where sustainability has been properly considered in a business case. [HEI]

Rather than focus heavily on a BPC model, a significant proportion of UKRI funding for monographs should be funnelled towards support for innovative models of OA book publishing which are sustainable in the long term. This could include supporting the development and expansion of low cost OA presses (New University/academic led) - although these might not be scalable - and fully OA book publishing platforms (e.g. OBP). However, it is also essential that researchers are convinced of the viability of what many would currently regard as 'lower status' routes to monograph publishing that some of these emerging solutions present. [HEI]

We would encourage UKRI to actively support a wider range of business models within the OA monograph market place than the BPC model. If not then all funds are likely to be consumed by BPCs, thus stifling innovation. Any financial model would need to accommodate for longer time periods than journal publishing, and more uncertain projected costs due to a range of variables (e.g. differing costs between immediate OA and embargoed OA, cost of third party rights). [HEI]

¹¹³ Respondent gave the following link <https://chronos.gatesfoundation.org/>

3.7 OA infrastructure

3.7.1 Research articles

Existing or new infrastructure services UKRI should fund

UKRI is evaluating and seeking views on whether there are any actions relating to OA infrastructure for research articles that it and/or the wider sector may need to address to support the implementation of its proposed policy and OA more generally. This includes how deposit of research articles and their discovery could be improved and whether there is a case for UKRI to support or provide one or more shared repository services.

When asked if there were *any existing or new infrastructure services that you think UKRI should fund the maintenance and/or development of, to support the implementation of its OA policy for research articles*¹¹⁴, 86% of consultees gave a reply. Over half (55%) of consultees answering said there was; representatives of HEIs (85%) and libraries (79%) were particularly likely to suggest infrastructure or services.

Open responses to this question hence largely came from HEIs, researchers and libraries. There was overlap here with responses to question 3 (see p.30). Many repeated thoughts on the need for UKRI to support existing institutional or subject repositories, or establish a national shared repository. Few responses gave justification for UKRI funding new or existing services beyond improving the efficiency, usability and sustainability of these systems to encourage and enhance OA compliance.

Suggestions were mostly to support existing infrastructure rather than encourage new platforms or systems. Jisc OA infrastructure¹¹⁵, including Sherpa services¹¹⁶, OpenDOAR¹¹⁷, CORE¹¹⁸ and the Publications Router¹¹⁹, were highlighted as being key to the implementation of OA and so appropriate venues for financial support to enhance their performance, usability and sustainability. The international reach of CORE and its use in research assessment exercises such as REF was referred to in support of this.

UKRI should fund the maintenance and development of the publications router. The deposit requirements should encourage more publishers to participate thereby simplifying deposit for academics and institutions alike. RoMEO will obviously be critical to fulfilling the requirements of the policy. UKRI should also consider launching a specific funding initiative (similar to the Jisc-funded OA Good Practice Pathfinder projects¹²⁰ to request small project proposals from institutions aimed at exploring ways they could better analyse the impact of OA (either on their own or via collaboration with external 'independent stakeholders'). Possible areas addressed by a funding call could include among others: (i) the detailed examination of the impact of the 5-year UKRI OA policy on institutional collaborations with industry (ii) the exploration of new internal institutional funding workflows for research libraries where departments and schools would be asked to contribute funding for an activity that directly benefits them, or (iii) a collection of case studies for impactful OA written in collaboration with institutional researchers. This latter area overlaps to a certain extent with the identification and description of REF2021 impact case

¹¹⁴ Question 29. Are there any existing or new infrastructure services that you think UKRI should fund the maintenance and/or development of, to support the implementation of its OA policy for research articles?

¹¹⁵ <https://www.jisc.ac.uk/open-access>

¹¹⁶ <https://www.jisc.ac.uk/sherpa>

¹¹⁷ <https://www.jisc.ac.uk/opendoar>

¹¹⁸ <https://www.jisc.ac.uk/core>

¹¹⁹ <https://www.jisc.ac.uk/publications-router>

¹²⁰ Respondent gave the following link <http://openaccess.jiscinvolve.org/wp/pathfinder-projects/>

studies, but the impact would be analysed from a strict OA perspective. Because OA typically falls on the library side whereas impact analysis is rather the competence of institutional research offices, this area remains critically underexplored and significant expertise gathered during the implementation of the 5-yr UKRI OA policy is not exploited to the full. This is the kind of 'soft infrastructure' that needs to be fed before it eventually turns into hard one. [HEI]

Other existing services to consider funding include DOAJ, CrossREF, ORCID, SCOSS, OpenAire, and Unpaywall. Although the question is related to peer-reviewed research articles, some also suggested the value of preprint servers such as BioRxiv or MedRxiv. The volume of existing infrastructure can be confusing and was given as justification for not requiring any new services but for UKRI to collaborate with providers of existing services that support uptake of OA and the sharing of information in various ways.

There were a small number of references to collaborative infrastructure between institutions or libraries, particularly where their small size, lower research output or lack of Block Grant funding makes resourcing their own repository unviable. Financial constraints has limited the development of innovative or collaborative approaches and so more flexible funding for this type of initiative would be welcome.

Continued investment in the Jisc Publications Router is very important, as a key piece of existing infrastructure. Any work to build a central point of truth for date of publication (and date of acceptance) would be useful. This would have to be co-ordinated with publishers, but essentially once a piece of work is 'published', then it would be registered with this service. [Other - combined HEI, library and university press publisher]

Our members are already working together to introduce a [Scotland]-wide infrastructure to support Open Access policy changes, through the development of an Open Access publishing platform. The set-up and ongoing management of this infrastructure will have considerable financial implications... Our work to realise this ambition has, however, been stymied by funding constraints. We expect that other institutions or consortia attempting to establish an OA infrastructure would experience similar challenges. Financial support from UKRI would enable the acceleration of activity in this area [Library]

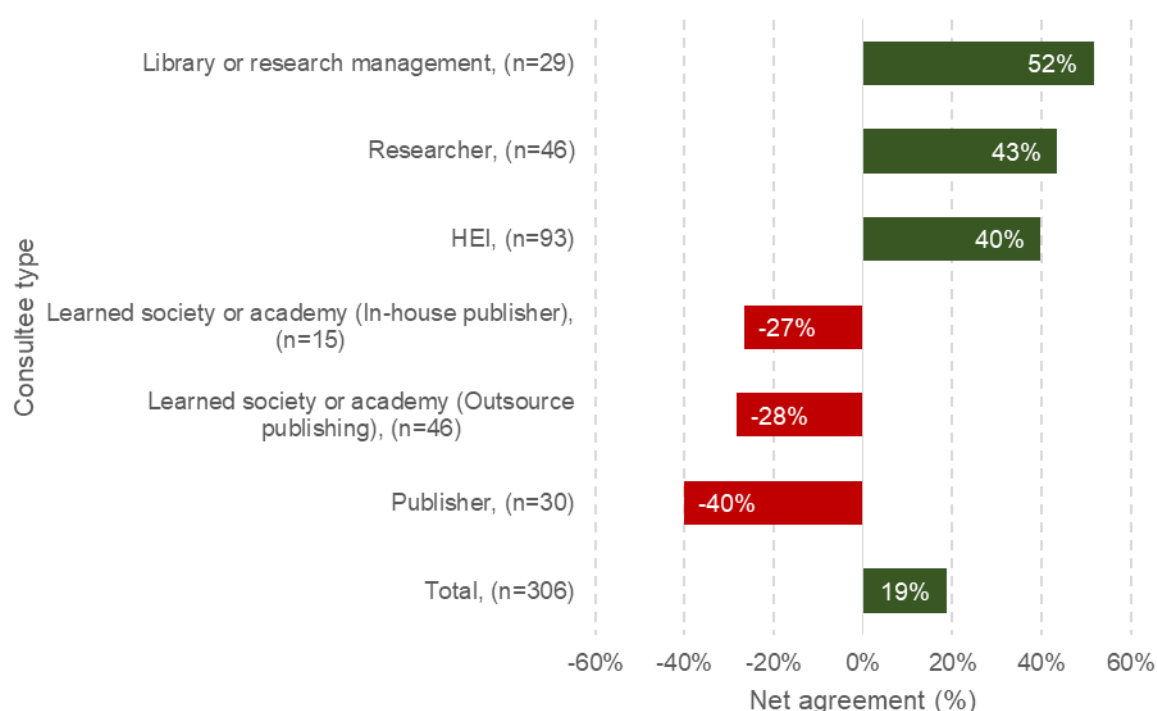
We recommend initiatives such as <https://www.oaswitchboard.org/> and any other emerging, neutral, initiatives that help with the coordination of OA fees and funding. Open Access and Open Science are exciting concepts which invite innovation, but standard processes, like billing and financial administration, are often not the recipient of investment yet may need to evolve to support an OA ecosystem. [Publisher]

A national shared repository

Consultees were asked: *To what extent do you agree or disagree that UKRI should provide or support a national shared repository?*¹²¹ Eighty-seven per cent of consultees gave a response and responses varied by consultee type. Figure 26 shows net agreement for a shared repository from representatives of libraries, HEIs and researchers and net disagreement from publishers and the two listed learned society categories. Furthermore, the Logit regression returned lower odds that publishers would agree with the proposition.

¹²¹ Question 30. To what extent do you agree or disagree that UKRI should provide or support a national shared repository?

Figure 26: Net agreement that UKRI should provide or support a national shared repository by consultee type



Source: Consultee responses, March to June 2020

The provision of a national repository, overseen by UKRI, was suggested in several places in the consultation. Opinions on this were generally split along the same lines as support for institutional repositories; publishers and learned societies (with or without a publishing arm) were much more likely to give reasons against a national repository and HEIs and libraries more likely to give reasons in favour. Researchers gave more mixed responses.

Those in favour felt that a national repository would aid access and discoverability in the same way as institutional repositories, and centralising these into one system or platform might be a more streamlined and efficient way of achieving this. It was recognised that a national repository would need investment from UKRI in the short term to establish but that this would be more cost-efficient than financially supporting multiple institutional repositories.

Other benefits include giving a degree of control over funded outputs to UKRI and providing a repository option for unaffiliated researchers, making the green OA route more equitable and accessible.

A small number of researchers, HEIs and library consultees supported a national repository only on the condition that this did not replace institutional repositories, as these still have a function for institutions in facilitating monitoring and reporting requirements, providing a showcase for their work and ensuring that all university outputs (regardless of funding) are available on the same platform.

For publishers and learned societies, a national repository was seen as an unnecessary duplication of effort and therefore not a sensible use of public funds. Publishers in particular overwhelmingly gave this type of response, citing the extra cost and work that this would create to duplicate existing well-established and used infrastructure.

Other considerations and suggestions with regards to a national shared repository include:

- collaborating with Jisc on a national repository
- exploring existing options for collaboration that may be more cost effective than building something new (including Research Fish, CORE, White Rose Research Online, British Library's Shared Research Repository, Jisc Open Research Hub)
- a national repository may not align with an international approach to OA – some felt that a European / global approach might be more appropriate
- respondents also suggested that existing publishing platforms (similar to Gates Open Research or Wellcome Open Research) should be considered by UKRI

We agree that this is a sensible option as long as an institution can retain ownership of content and have confidence in the sustainability and longevity of the solution. It must also support interoperability with our institutional systems using open APIs. We recommend a joint development between Jisc and the British Library with the former providing and maintaining the infrastructure, guaranteed by UKRI, and the latter being given the mandate to extend its current legal deposit requirements to include journal articles and conference proceedings. This mandate will need to include free and open access in perpetuity, including digital preservation. It is worth noting that a national repository has the potential to save costs by reducing duplication of infrastructure and support costs for individual institutional repositories. However, this is unlikely to be as significant as perhaps hoped as most institutions will still require to maintain an institutional repository for content other than articles and conference proceedings e.g. theses, grey literature, teaching materials. [HEI]

Building a national shared repository may risk considerable duplication of existing institutional and subject-based repository infrastructure, with subject fields such as physics already relatively well served by existing repositories. We would advise careful review of existing services before undertaking a major national project, and perhaps first exploring the scope and viability of better federation of existing infrastructure. [Learned society with in-house publishing arm]

Researchers search, find and share scholarly content in many different ways. One method is a new initiative from publishers called Seamless Access, a service designed to help foster a more streamlined access experience when using scholarly collaboration tools, information resources, and shared research infrastructure. The service promotes digital authentication leveraging existing single-sign-on infrastructure through a user's home institution, while maintaining an environment that protects personal data and privacy. Other avenues are search engines which are often used by researchers (CIBER Study 2016) while others prefer the use of scholarly collaboration networks (SCNs). Publishers heavily invest in all options to ensure that their content is fully discoverable and findable. A recent new initiative called GetFTR is offering a solution to enable faster access for researchers to the published journal articles while also addressing the challenge of a distributed workplace (working on and off campus). In light of all of these activities, it is not clear that a national shared repository is an effective use of funds. [Publisher]

3.7.2 Monographs, book chapters and edited collections

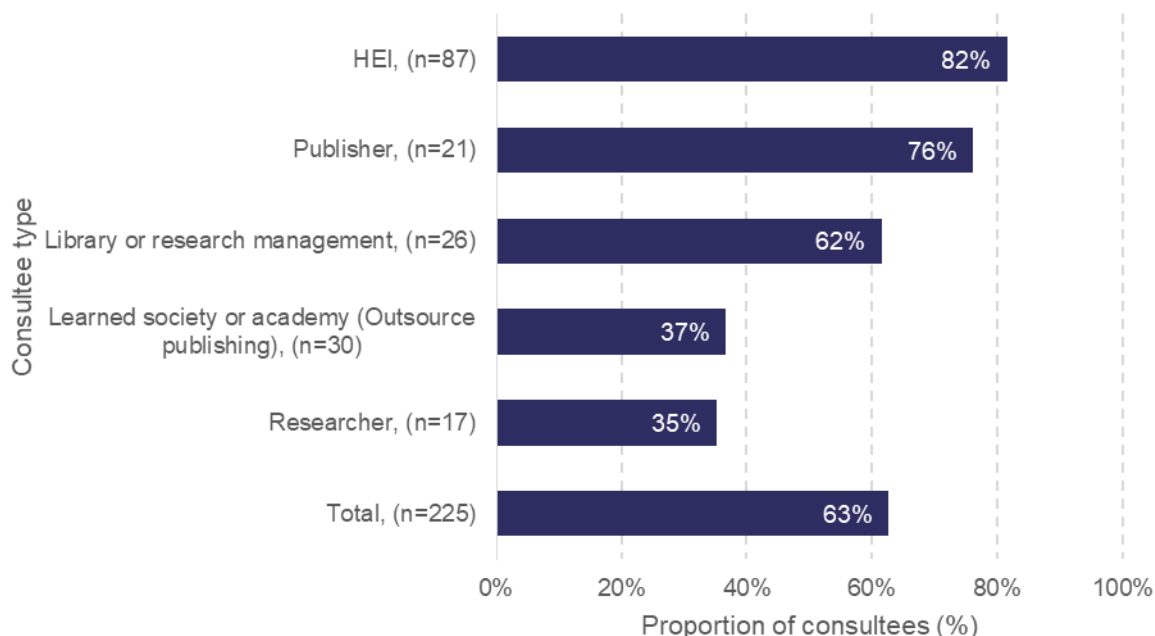
Existing or new infrastructure services UKRI should fund

UKRI is seeking views on whether there are any actions relating to OA infrastructure for monographs, book chapters and edited collections that it and/or stakeholders may need to address to support the implementation of its proposed policy and OA more generally.

Under two-thirds (64%) of consultees answered question 54 which asked if there were *any actions (including funding) that you think UKRI and/or other stakeholders should take to maintain and/or develop existing or new infrastructure services for OA monographs, book chapters and edited*

*collections?*¹²² Figure 27 shows that representative of HEIs (82%) and publishers (76%) were most likely to think UKRI or others could take action regarding long-form output infrastructure: 63% of all answering felt this way.

Figure 27: Views on whether UKRI or others should take action towards maintaining and/or developing infrastructure services for long-form outputs by consultee type



Source: Consultee responses, March to June 2020

Open responses to this question often reiterated answers given elsewhere with regards to funding mechanisms for long-form outputs (see section 3.6.2). Some felt that funding should be directed to alternative models and infrastructure in order to move away from BPCs.

In addition, consultees suggested a number of existing infrastructure services that UKRI should consider supporting to assist with OA for long-form outputs. Justification for further support from UKRI in existing or new infrastructure was that this landscape is much less well developed than for research articles, giving an opportunity to make changes to existing practices to enhance the use of OA.

The two most commonly cited existing infrastructure systems that respondents felt UKRI should support were DOAB and Jisc services, particularly the Publications Router and SHERPA services. Respondents noted that a service similar to SHERPA/RoMEO was in need for long-form outputs to collate publisher OA policies, encouraging further transparency and reduce the administrative work done by universities in searching out this information. HEIs and libraries largely referred to the absence of this type of service currently, but it was also mentioned by a small number of publishers and learned societies. There was reference to a number of ongoing initiatives that they

¹²² Question 54: To support the implementation of UKRI's OA policy, are there any actions (including funding) that you think UKRI and/or other stakeholders should take to maintain and/or develop existing or new infrastructure services for OA monographs, book chapters and edited collections?

felt UKRI should continue to align with, such as the UUK Monograph Strategy¹²³ and OA publishing communities of practice.¹²⁴

Discoverability is an issue for OA monographs. UKRI could engage in discussions around this issue. If appropriate, UKRI could fund developments to ensure that good quality metadata is available and interoperable, this will enable these OA outputs to be found by all users. The Directory of Open Access Books is key in this space and should be considered for support. UKRI should consider financial support for University Presses and academic led publishers. [HEI]

UKRI should help fund and maintain Jisc Publications Router including extending to book and chapter AAMs. UKRI should also consider supporting international open scholarship initiatives including those supporting OA monograph publishing through The Global Sustainability Coalition for Open Science Services (SCOSS).¹²⁵ UKRI should not repeat the mistake made with journal articles and fund only or largely the BPC model of OA publishing. [HEI]

The publishing industry has already created infrastructure for publishing books. Public funds are not needed to create duplicate infrastructure but can be useful to create and sustain new components: Jisc's SHERPA suite is an example. There are a number of actions that might placate third parties and publishers- covering images with watermarks that cannot easily be removed might be sufficient for third parties with royalty concerns. [HEI]

UKRI could support the management and presentation of books as digital objects in repositories through the development of a framework to support discoverability of research in the arts, as well as other disciplines. UKRI should develop mechanisms for splitting costs across institutions where outputs have multiple editors/co-authors. UKRI should also support existing services such as the Directory of OA Books. Providing funds to support emerging platforms/community publishing initiatives is the best way forward to address hurdles OA books face: to achieve equity across different types of presses; and to ensure a diverse publishing ecology for OA books (Adema & Stone 2017).¹²⁶ There is a clear rationale for funders to play a leading role in promoting such activity given the proposed policy commitments. [Other]

UKRI should work with Jisc to ensure the planned development of a SHERPA for books service meets the needs of authors and institutions and is simple for publishers to use. The planned service will need to be granular in its information as policies differ by output type. The information in the tool need not be limited to outputs in scope of this policy. A version of Jisc Publications Router for books should be developed to take the burden of deposit and metadata creation in repositories away from authors and institutions. For both of these the needs of small publishers who may not have the capacity or capability to engage with the services should be taken into consideration and supported. UKRI should financially support the Directory of Open Access Books and mandate deposit of metadata in it. If a national repository is developed it should be open to all outputs in scope of this section of the policy as well as articles. [HEI]

Respondents also suggested that UKRI considered the role that initiatives such as OAPEN and COPIM might play in developing and providing infrastructure for OA monographs. Several felt that there is enough infrastructure already so new services would not be needed and resources would be better spent working with existing providers (such as Jisc) to enhance the usability of digital long-form outputs.

¹²³ Respondent gave the following link

http://repository.jisc.ac.uk/7413/3/Towards_a_Roadmap_for_Open_Access_Monographs_June_2019.pdf

¹²⁴ Respondent gave the following link <https://re.ukri.org/news-opinions-events/news/re-awards-2-2m-to-project-to-improve-open-access-publishing/>

¹²⁵ Respondent gave the following link <https://scoss.org/>

¹²⁶ Adema, J & Stone, G (2017). *Changing Publishing Ecologies. A Landscape Study of New University Presses and Academic-led Publishing*. Faculty Research Centre in Postdigital Cultures.

There was further support from HEI and some library respondents for a central repository that could be extended beyond research articles to other outputs. Respondents suggested that a centralised system would avoid duplication of effort across institutions. For long-form outputs, some suggested developing a publishing platform or a UK-wide shared press, which would offer an option for small institutions with no University Press. One publisher suggested that this could be a self-publishing platform (with no publisher input). One learned society respondent felt that funding a consortium or smaller publishers directly would help to encourage the sustainability and diversity of the publishing sector.

UKRI should develop a platform where it can host and share the OA outputs it has funded. The content will be in one place, not scattered across publishers' websites or institutional repositories with varying standards of discoverability. UKRI would thus support and enhance the discoverability of its OA research and showcase the work it has funded. It should therefore be a condition of UKRI funding that UKRI has the right to host a copy of each funded work, and the publisher must allow UKRI to collect metadata sufficient for this purpose. This is particularly important if a green OA route for books is deemed to be in scope. Institutional repositories are not in themselves sufficient for the effective dissemination of OA works - a green OA paper in a repository in Cambridge will not necessarily appear in a library catalogue in Leeds, and vice-versa. Public knowledge of repositories is not widespread. Tools such as Unpaywall can help people find OA versions of academic works, but readers should not be dependent on tools designed to mitigate an initial failure of discoverability. A UKRI platform could host both gold and green OA outputs. It could ensure all its OA works have a DOI, and deliver metadata to (at least) all UK academic libraries, OAPEN and the DOAB (this is another area where COPIM is doing good work)¹²⁷. Such a platform would also provide a repository for scholars who have left their institution, but are publishing work based on a UKRI-funded PhD. One option is to host a UKRI collection on the non-profit platform OAPEN, as the Wellcome Trust¹²⁸ has done. OAPEN can host OA books, record reliable usage metrics and deliver metadata. There are a number of other organisations with whom UKRI might liaise to explore the development of infrastructure in fruitful ways, such as SCOSS¹²⁹ and Invest in Open Infrastructure¹³⁰ as well as initiatives like OPERAS-P¹³¹. The COPIM project is a valuable source of expertise that UKRI could consult. SCOSS aims to facilitate the security and sustainability of a global network of community-governed infrastructure projects, while Invest in Open Infrastructure is making the case for higher-education institutions to help support the systems that disseminate the research they produce, in ways other than paying publishers for content. These are organisations with which UKRI could forge relationships in order to support its OA strategy. [Publisher]

Although there was support here and elsewhere for UKRI to support innovative infrastructure that challenges the BPC model, very few examples were given. One HEI suggested funding a collective library membership readership and publishing consortium or a pilot like the United States' Towards an Open Monograph Ecosystem (TOME) scheme, where "local distributed publishing on a small scale would have some costs met via collective and widespread library funding proportionate to publishing activity levels".¹³² Some consultees also referenced electronic use of books.

Books remain a long way behind journals for general electronic use because of the length of text and reader preference. Even library supplied ebooks remain limited in their use and popularity because DRM issues prevent their use on the more refined electronic reading platforms (e.g. Kindle epaper based

¹²⁷ Respondent gave the following link <https://www.copim.ac.uk/work-package/wp5/>

¹²⁸ Respondent gave the following link <http://library.oapen.org/browse?type=collection&value=Wellcome>

¹²⁹ Respondent gave the following link <https://scoss.org/>

¹³⁰ Respondent gave the following link <https://investinopen.org/>

¹³¹ Respondent gave the following link <https://operas.hypotheses.org/2774>

¹³² For further information on TOME see openmonographs.org

tech). Traditional publishers have not yet grasped the potential for innovation in this form. There is an opportunity for the OA approach to not just reproduce electronic versions of traditional print media, but provide new opportunities for both the process of publishing and its outputs. Investing in open, low cost publishing platforms which provide accessible DRM free outputs with novel functionality (media; animation; embedded code; updateable) could invigorate the monograph publishing market and demonstrate the added potential of online books, as well as making them more openly accessible and supporting public access to research. [HEI]

3.8 Preprints

The consultation considered the place pre-prints take in the wider publishing landscape. In their consultation support document, UKRI's OA pre-print policy would apply to peer-reviewed articles and could support early dissemination of results, with the potential to accelerate research. However, the consultation sought views on requiring OA on pre-prints during public emergencies and what actions could be taken to support wider use of preprints across all disciplines.

General points to consider regarding preprints

The main concern with preprints for consultees from all categories was the lack of peer review at the point of publication. This increases the potential for errors or false information which could be problematic given the likely impact of work in healthcare subjects. Preprints can also be misunderstood or misinterpreted, lack context and may not be sufficiently robust to inform practice. Misuse of preprints during the Covid-19 pandemic was cited as a need for caution.

Other concerns related to technical requirements (not well developed in some disciplines, need established standards for sharing as with full articles), challenging licensing conditions with some publishers, and difficulties with enforcement. Respondents felt that defining the technical requirements for preprints would be essential. Some felt that this would be beyond the remit of UKRI given the complexities and specifics of the OA policy more widely and would add to the burden of compliance and reporting.

Some went further to suggest that because mandating preprints would need investment to support and enforce, this would not be a good use of public funds when a) the sharing of information happens regardless of UKRI policy and b) any funds spent on this would be diverted away from gold OA or other supporting actions.

Discrepancy between STEM and AHSS disciplines emerged strongly in responses. It was acknowledged that those working in STEM are more accustomed to preprints and more responsive to any requirements for this. It was proposed that the writing, peer-review and edit of AHSS articles was more integral than for STEM subjects, where an article reports results of a specific study.

Views on whether pre-prints offer significant benefits regarding public emergencies

The role of pre-prints has come to the fore in the current pandemic. Nearly nine in ten (88%) of consultees responded to Question 31¹³³ which asked whether UKRI should *require preprints to be made OA where there is a significant benefit with regard to public emergencies*? Three in five (60%) consultees who answered said that UKRI should with some variation by consultee type (Figure 28).

Open responses regarding preprints and public emergencies

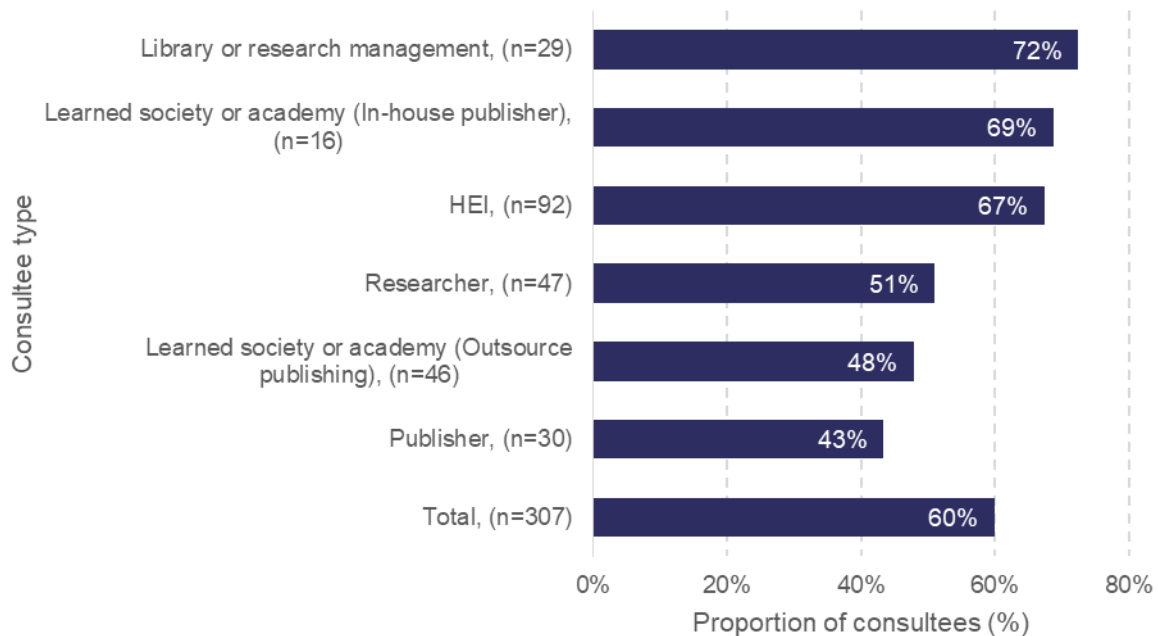
There was widespread agreement that the current Covid-19 pandemic and the response to this has highlighted the value of preprints and quick access to research outputs. A dozen HEIs and a handful of other consultees noted that the UKRI OA policy could align with the Wellcome Trust's policy on preprints which states that all Wellcome funded research should publish a preprint "when there is a significant public health benefit to preprints being shared widely and rapidly, such as a disease outbreak (Wellcome, 2020, p.2¹³⁴). Very few consultees disagreed with the concept of preprints being available as OA. Several stressed their opinion that preprints are generally OA

¹³³ Question 31. Should UKRI require preprints to be made OA where there is a significant benefit with regard to public emergencies?

¹³⁴ Wellcome (2020) Open access policy 2021. <https://wellcome.ac.uk/sites/default/files/wellcome-open-access-policy-2021.pdf>

anyway; the preferred requirement was for preprints to be posted with an open as license as possible to make the article as valuable as possible in the emergency.

Figure 288: Views on whether UKRI should require preprints to be made OA where there is a significant benefit with regard to public emergencies by consultee type



Source: Consultee responses, March to June 2020

Although there was a high the level of agreement with the proposed requirement, most open responses to Q31 and Q32 noted some challenges, concerns and observations. Several who agreed also noted that the response amongst researchers to Covid-19 demonstrated that in a public emergency, researchers and publishers can collaborate in a timely manner and make research available: An OA policy was not required to respond to the recent pandemic.

Further support for preprints was sometimes caveated with the proposition could apply to all preprints, not just those relevant to a public emergency. Given the challenges with defining a public emergency (see below), it was proposed that rapid access to findings would always be of benefit and therefore this proposition should not include the "public emergency" qualifier.

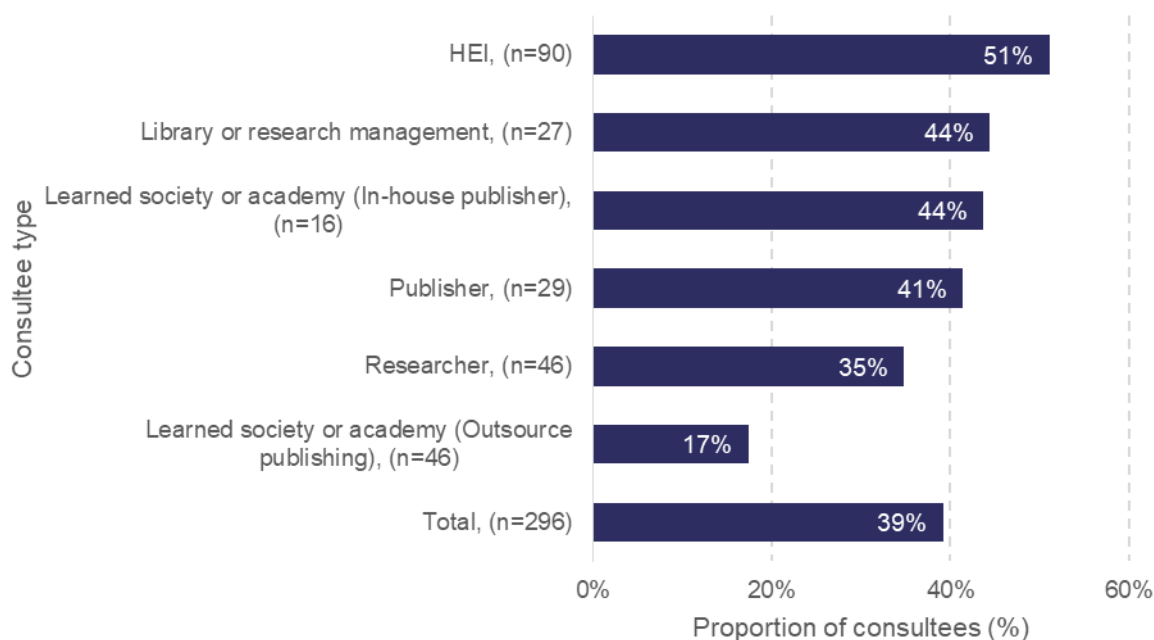
At least one in eight consultees (mostly HEIs) highlighted the challenges of defining a 'public emergency'. Suggestions included that declared by a relevant organisation such as WHO, a government standard definition (e.g. under the Civil Contingencies Act), or the mobilisation of SAGE. Several consultees said working with the Wellcome Trust to align definitions as well as policy could aid clarity and compliance.

Some concerns were expressed over the exclusionary nature of any definition and that some would always disagree. For example, some felt the definition should be a broad to include economic and social crises, other health emergencies such as diabetes, dementia, humanitarian crises and the current climate emergency.

Supporting actions UKRI could take to support pre-prints

Eighty-five per cent of consultees answered Question 32: *Are there any supporting actions that UKRI could take alongside its OA policy to support the use of preprints in all disciplines?*¹³⁵ Of these consultees, 39% felt UKRI could take actions and this varied by consultee type (Figure 28).

Figure 28: Views on whether UKRI could take action alongside its OA policy to support the use of preprints in all disciplines by consultee type



Base: 307

Source: Consultee responses, March to June 2020

The most common suggestion in the open responses was support for the establishment of a preprint repository or other platform. This could be a national shared repository (see 3.6.1 for a wider discussion on a national repository), support for institutional repositories or collaborating with and supporting existing preprint servers, with the aim of long-term sustainability. Regardless of whether support is provided or not, clarity around which preprint or other servers would be compliant would be needed.

To further support preprint use, clear expectations and clarity around requirements, use and benefits or caveats would be necessary. Preprint deposits should not be an obstacle to publication (with some questioning whether a preprint would count as a publication) and this should be made clear.

One particular area requiring guidance and clarity related to the lack of peer review. Preprints should be recognisable as such and it made clear that they are not the final version. Guidance on using and interpreting preprints may also be needed.

Particularly in AHSS, consultees proposed that preprint use should be encouraged rather than mandated, to help to convince disciplines that are less familiar with them. Others felt that even this was not necessary and that a blanket approach to preprints that did not account for discipline specific concerns and issues would not be a good use of resources.

¹³⁵ Question 32: Are there any supporting actions that UKRI could take alongside its OA policy to support the use of preprints in all disciplines?

3.9 Monitoring compliance

In section C of the questionnaire UKRI sought to views and evidence on monitoring compliance of research outputs, as well as compliance of expenditure of UKRI OA block grants. In the consultation document, UKRI noted that it does not currently monitor whether research outputs are compliant, however, it does seek assurance that the OA block grant has been spent in line with its purpose. UKRI welcomed views and evidence on how to effectively monitor policy compliance. Comment was also invited about whether UKRI should introduce further sanctions for non-compliance, as well as the suggested approach. Policy compliance was a topic about which consultees made reference throughout their responses. Overall issues regarding compliance are therefore covered first, after which a review of responses to the specific questions posed in Section C is given.

Challenges for compliance

Question 4 was the first point in the questionnaire that offered consultees some freedom to provide an open response. The question asked whether there are *any specific challenges for you, your community or your organisation in terms of complying with the requirement in UKRI's proposed policy for immediate OA of in-scope research articles?* More than nine in ten (91%) of consultees answer the question and compliance issues featured in answers. Particular issues that are said to present barriers to compliance (throughout the consultation, not just question 4) include lack of infrastructure, operational challenges, administrative burden and the potential subsequent costs arising to become compliant.

Restrictions on compliant routes to OA

Around three dozen representatives from groups that publish (publishers, learned societies) said that the option for zero embargo as part of a green route was infeasible or unsustainable for their organisation (although other publishers offer such routes). These consultees forecasted a negative impact their subscriptions and thus income as a result of zero length embargo green routes, making them financially unviable and unsustainable. The main cause being the loss of exclusivity for given published articles for a period of time removing the need for subscriptions. See also sections 3.2.1, p.32; 3.6.1, p.98; 3.10, p.142; and 3.11.1, p.150 for other discussions on green zero embargo routes.

Zero embargo green route is not a business model - it provides no income. On its own, zero green embargo OA cannot financially support publishing processes that are essential to underpinning trust and confidence in published research - including the provision of high quality peer review, editing and copy editing - and efficient promotion, dissemination and discoverability. There is insufficient evidence that zero embargo green OA does not/will not, as discoverability improves, undermine subscription sales. It is those sales that provide the revenue to support and enable peer review and other article production processes that are required to reach a good quality AAM stage. We do not see any evidence in social science for a business model that derives in-come post green OA publication from re-packaging and re-selling collected content. [Learned society which outsource publishing]

"Green" open access policies are premised on a vibrant subscription market that enables significant publisher investments, including in creating journals and workflows, processing submissions, managing peer review and publishing processes, creating digital platforms for dissemination and enabling discoverability, and maintaining the long-term integrity of the scholarly record among many other tasks. [We employ many] highly skilled staff solely to manage the global peer review enterprise. We also continue to make significant investments to strengthen and accelerate the publishing process for our authors, reducing by 40% our average time from submission to publication over the past year. A proposed zero embargo could render the green OA model unviable as we would be unable to continue to invest in these vital publishing processes, effectively preventing compliance through this route and reducing choice for authors. [Publisher]

Many HEI consultees say that while some journals already offer OA or are moving towards an OA offer, other journals, particularly small, subject specialist or prestigious journals in some disciplines, do not offer suitable compliant routes. In most cases, consultees said that while journals may offer a gold route, this option is not financially possible or sustainable for individuals or all institutions, and that many journals do not currently permit a green OA route with a zero embargo. A few HEI consultees also said that some publishers do not allow an AAM to be deposited in an institutional repository with a CC BY licence. Consultees felt that this leaves them in a position with no 'middle ground'; they are unable to comply if neither the gold OA route nor green OA with zero embargo is available to them. Consequently, consultees said their ability to comply with the proposed OA policy was constricted.

It will be difficult to fulfil the criteria of making research articles OA via the green route i.e. making an author's accepted manuscript freely and immediately available online at the time of publication in an institutional repository. Without adequate infrastructure such as a CRIS (significantly expensive) or the Jisc Publication Router (additional costs involved) and also require increased staffing levels to handle this extra administrative burden. A workaround could be UKRI negotiating with publishers to allow deposit of the author's accepted manuscript in the institutional repository (without an embargo) prior to publication. The longer publisher embargoes (12 to 24 months for Panels C & D) will also have a disproportionate impact on [HEI].

There is further discrepancy between current publisher policies, with some allowing zero embargo deposits (such as Sage, Cambridge University Press etc.) while others do not. Work needs to be done to ensure publisher policies across disciplines allow zero embargo deposits to avoid curtailment of choice and diversity in publishing options for AHSS scholars. [HEI]

Some consultees noted that smaller scholarly journals support a diverse community of academic researchers and offer growth for new publishers by providing a low-cost route to OA. These consultees were concerned that smaller publishers would be subsumed by larger publishers. Similarly, a few learned societies (or other non-profit organisations) who own or part-own hybrid journals said that they will need time to consider alternative models.

Manual reporting for block grants

Nearly three in ten (29%) of consultees answered Question 57 which asked *whether the manual reporting process currently used for UKRI OA block grants be improved?*¹³⁶ Almost half (45%) of consultees responding said the process could be improved. Of the remainder, around a quarter said 'Don't know' (27%) and a further 26% said they had no opinion. Only a minority (3%) said that the process could not be improved. Nearly two-thirds (65%) of consultees from HEIs agreed manual reporting could be improved.

Open text responses reveal that consultees feel the current reporting process is an administrative burden and creates duplication of work. Several consultees say that the reporting process requires information to be drawn from multiple sources, and that this is time-consuming to cross check and reconcile to ensure accuracy. Some consultees expressed concerns over the accuracy of data currently submitted to UKRI. One states that despite their best efforts to gather accurate information, this amounts to a 'best guess' and believes that there is likely to be missing or inaccurate information. Other consultees say that there is often little staff resource or capacity available to be allocated to such reporting, or it draws on information produced by several people or different teams, which then requires manual comparison (for example, finance and library or research support).

The majority of consultees commenting request a move to more automated and centralised systems and processes in order to reduce the burden associated with manual reporting.

¹³⁶ Question 57: Could the manual reporting process currently used for UKRI OA block grants be improved?

Consultees suggest that the current Jisc monitor should be adapted and/or a centralised dashboard, hub or switchboard be created. Consultees note a few key considerations for any automated systems or processes in order for it to be effective. These include:

- Real-time online system with automated deposit mechanisms for articles and metadata
- Agreed standards for metadata
- Improved and consistent information and data (including metadata, financial and publication status information) from publishers and their submissions systems or dashboards
- Collection of data where it is reported elsewhere, for example, total spend through JeS¹³⁷
- A higher level of reporting requiring less granularity

Some consultees request that information and guidance also be centralised as they noted that this is currently located in or communicated through different sources and channels (for example, Jisc website, through email to OA block fund contact), which can lead to miscommunication.

The current reporting processes are largely manual and there is scope for some automation. This would require development across a number of areas, including the proposed OA Switchboard, standardisation and improved quality of publisher data; use of a range of identifiers including Grant IDs. [Library]

The current reporting system is still a highly labour-intensive manual process despite the implementation of Jisc monitor, which has eased the burden. The added level of having to submit a FES and IES each year through our submitter pool, as well as the Jisc spreadsheet, has increased the workload. Because library staff recording payments do not have access to the submitter pool, they have to liaise with colleagues in finance, which takes extra time. [HEI]

Sanctions to address non-compliance and proposed measures

The consultation document gave some example sanction measures to tackle non-compliance amongst research organisations. UKRI propose a case-by-case approach using a sliding scale of measures (see Box 1 from UKRI (2020, p.37).

Question 58¹³⁸ asked: *Should UKRI apply further sanctions and/or other measures to address non-compliance with its proposed OA policy?* Three in ten (29%) of all consultees said sanctions should be applied. Nearly half of those representing HEIs (49%) and libraries

Box 1: Proposed sanction measures for non-compliance	
Scale of policy breach	Corresponding action
Minor breach such as: ■ non-compliance of an individual in-scope research output.	Letter issued to research organisation to inform them of the breach, and of any action needed to put the breach right and/or to ensure it does not reoccur.
Major breach such as: ■ failure to take steps required in response to a minor breach ■ a high frequency of minor breaches that demonstrates a systemic failure by a research organisation to implement or enforce the UKRI OA policy.	Letter issued to research organisation to inform them there has been a major breach of policy, and what action is required to put the breach right and/or to ensure it does not reoccur. If the research organisation does not take satisfactory remedial action, UKRI may ultimately apply financial sanctions for sufficiently serious non-compliance by withholding funding (or a percentage of it) due to be paid to the research organisation.

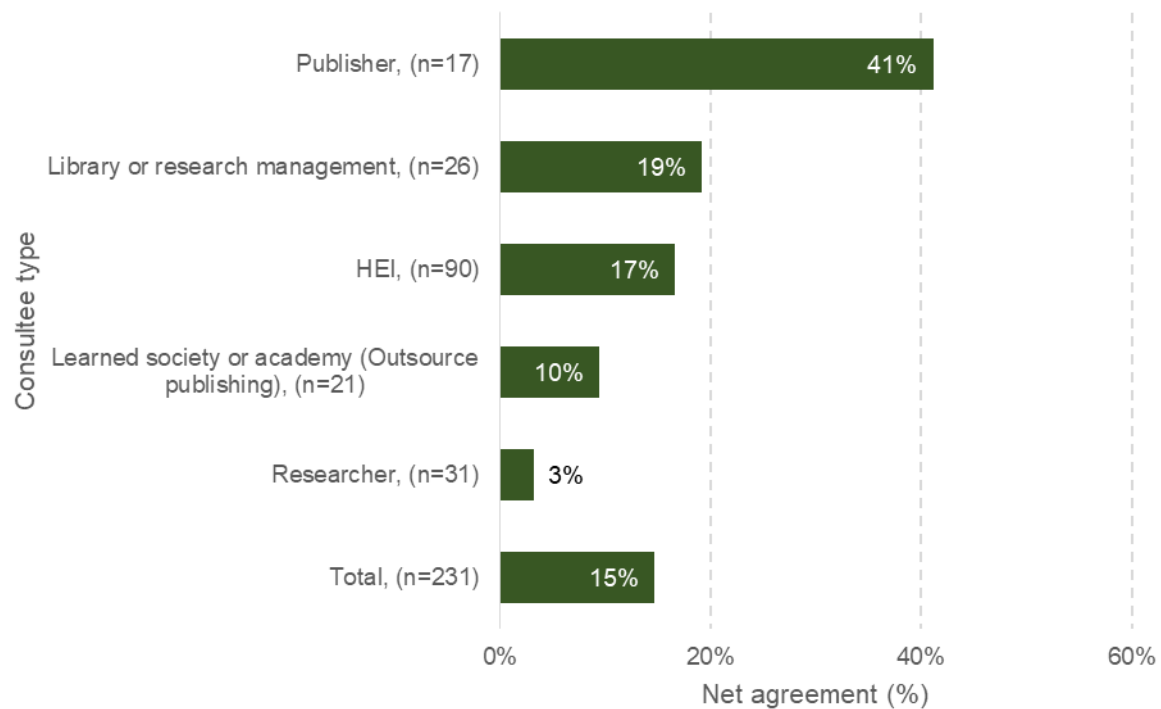
¹³⁷ A provider of electronic grant services <https://je-s.rcuk.ac.uk/Jes2WebLoginSite/Login.aspx>

¹³⁸ Question 58: Except for those relating to OA block grant funding assurance, UKRI has in practice not yet applied sanctions for non-compliance with the RCUK Policy on Open Access. Should UKRI apply further sanctions and/or other measures to address non-compliance with its proposed OA policy?

(46%), and two in five (39%) of researchers agreed with the statement. Nearly all of the publisher and learned society representatives who answer selected the "no opinion" or "don't know" options.

Question 59 signposted consultees to example actions that could be taken to address non-compliance (reproduced in Box 1) and asked: *To what extent do you agree or disagree with the example proposed measures to address non-compliance with the proposed UKRI OA policy?*¹³⁹ Net agreement¹⁴⁰ with the proposed sanctions is presented in Figure 29. The small number of publishers who responded and recorded their agreement were positive towards the suggested sanctions (+41%), although the level of "no opinion" response from publishers was also high at 53%.

Figure 29: Net agreement with UKRI's suggested sanctions for non-compliance by consultee type



Source: Consultee responses, March to June 2020

Responses to the open text questions regarding the use of sanctions and proposed measures were predominantly from representatives of HEIs and library or research management. Although there was no differences in views between different groups of consultees, there were mixed opinions among consultees, with some strongly advocating the use of sanctions, and others stating that sanctions were inappropriate or unhelpful in addressing or increasing compliance.

Reasons for supporting or opposing sanctions

Consultees who advocated sanctions felt they would support embedding the policy within the sector and demonstrate the seriousness of the policy in driving towards wider and more

¹³⁹ Question 59: To what extent do you agree or disagree with the example proposed measures to address non-compliance with the proposed UKRI OA policy (see paragraph 119 of the consultation document)?

¹⁴⁰ The total proportion who strongly disagreed and disagreed subtracted from total proportion who strongly agreed and agreed

comprehensive OA. A minority of those commenting said that without sanctions, there would be no incentive to comply with the policy.

The main reasons given for opposing the policy amongst the 27 HEI representatives offering a view related to the administration of the research process. Though the consultation document stated that compliance would be via the standard terms and conditions of funding to organisations, many HEIs noted that the burden for compliance is transferred to researchers. For these respondents, the institution is viewed as facilitating compliance by acting as an arbiter with researchers and was not in a position to force researcher compliance. A number of HEI representatives also felt the compliance regime was heavy handed, punitive and/or did not fully reflect the research production and publication process' complexity.

Many of those supporting and opposing sanctions stated that appropriate guidance, support and warnings should first be applied to allow researchers and institutions to correct errors and change processes or behaviour, and that the application of sanctions should be a last resort or where there are instances of repeated non-compliance. This mirrors the process suggested by UKRI as per Box 1 (page 135).

Regardless of support or opposition towards sanctions, consultees preferred that efforts be directed toward investment in education, training and advocacy, and incentivising authors and institutions to comply. Some felt that efforts to understand and address the reasons for non-compliance would be more beneficial, would encourage the identification and removal of barriers, and in the long term increase overall compliance with the policy. Some consultees felt that sanctions would be an additional burden and stress to institutions already under financial pressure.

Consultees both for and against sanctions questioned how and against whom sanctions would be applied (the consultation document states that sanctions apply at the institutional level as UKRI funds institutions and not individuals). Many of those commenting questioned whether the responsibility for compliance and monitoring will fall on the individual or their institution. Some felt that the proposed measures place emphasis on institutional sanctions and would not be appropriate where individual authors are unable or choose not to comply, or because the institution does not have control over or involvement in the publishing activities of individuals and/or relationships between author and publisher. Some consultees again said that the responsibility for monitoring compliance should not be imposed on institutions but should lie with UKRI.

Some consultees say that the proposed measures were proportionate but should be targeted at the individual author or grant/fund-holder, rather than the institution. Some suggested that sanctions should be applied on a sliding scale and align with the relative level of responsibility, for example, institutional sanctions where reporting or necessary infrastructure does not meet standards or support compliance, and individual sanctions for output compliance. However, as stated above, the ability for UKRI to impose individual sanctions is not covered in the consultation document, rather, it stated that it is the responsibility of the institution to ensure compliance by the relevant grant holder.

The use of sanctions to achieve compliance has been critical to the success of the REF OA policy, but this has perhaps done harm in that for some researchers, open access is little more than a compliance exercise. Imposing sanctions is problematic, in terms of whether they look to penalise the grant holder or their institution. Thought needs to be given as to how this works and the effect which UKRI intends to achieve. We would suggest that auditing institutions and providing suggestions to aid their processes would be preferable as a first course of action, prior to the issuing of sanctions. This may also provide UKRI with a first-hand sense of where the challenges in terms of implementing the policy lie. If there is continued non-compliance following this, then the use of sanctions would seem appropriate. Any sanctions need to consider the realities of the publishing process. [HEI]

We believe that compliance monitoring and sanction application is a costly and labour-intensive exercise, so we suggest that measures focus on incentivising researchers to comply. We would suggest that UKRI aim to reduce administrative burden for researchers, and that the investment be in awareness raising around the OA policy, winning hearts and minds with researchers and ensuring the policy is

adequately funded. If this is achieved, then non-compliance is unlikely to be an issue. An incentives-based approach is more likely to win the support of researchers and achieve the goals of the policy than a sanctions-based approach. UKRI could consider following the example of Wellcome who reward future grant funding on the basis of past compliance; this encourages compliance amongst researchers whilst reducing some of the burden around compliance reporting. [Publisher]

3.10 Policy implications and supporting actions

UKRI wants to ensure that its revised OA policy and its implementation are successful in promoting OA and supporting the wider research and innovation environment, nationally and internationally. UKRI welcomed views and evidence from stakeholders to assist in evaluating the wider implications, positive or negative, for the research and innovation and scholarly communication sectors that might arise from its proposed policy, and supporting actions that it might need to take, to support implementation of the policy and OA more broadly. Considerations flagged in the consultation document considered aspects such as equality, diversity and inclusion, research culture and research environment, research collaboration and different career stages and disciplines, and anticipated barriers or challenges, in addition to asking specifically about positive or negative implications for Lower and Middle Income Countries (LMICs). It should be acknowledged that UKRI are undertaking an equality and diversity impact assessment as part of its policy formation activities and will draw on content from the consultation.

Benefits arising from UKRI's proposed OA policy

Of those who responded to question 60¹⁴¹, 72% answered that they did foresee benefits arising from UKRI's proposed OA policy. Fifteen per cent answered no to this question. Agreement was largest amongst library (92%) and HEI (87%) respondents, and lowest amongst researchers (50%). Of the 15% who responded and answered no, the almost four in five were researchers or learned society respondents.

The vast majority of open responses concerning the benefits resulting from the proposed UKRI OA policy centred on the increased and improved access to research and literature that will result from a well-implemented OA policy. This came from all respondent types. Particular groups referred to as benefiting in this way include researchers/students without a university affiliation or at smaller institutions, businesses or entrepreneurs that use research, and the general public.

HEI and library respondents suggested that increased access to and public engagement with research produced by their staff will increase the visibility of the institution and the impact of their work. It will also support their teaching and has the potential in the longer-term to save money by reducing subscriptions and Inter Library Loan costs (though some include concerns raised previously about short-term costs).

Many of those commenting caveat their response such that the perceived benefits will apply only if UKRI can resolve the issues and questions raised previously, in particular aligning the UKRI policy with others in the same field (e.g. REF, Plan S) so as not to cause confusion and addressing licencing and copyright concerns (see Section 3.3).

Managed appropriately, the policy has the potential to increase authors' engagement with open access, increase awareness of open publishing venues, encourage publishers to adopt more open policies, and allow more authors (not only UKRI-funded) to publish open access. OA is still growing within Art and Design disciplines, and by extending OA policies to monographs etc., this could help reach another tranche of researchers. However, much of this policy - and its ultimate success - will rely heavily on the supporting mechanisms and the way UKRI supports HEIs to implement. Just putting this policy in place with inadequate resourcing and support certainly won't be beneficial to the discipline of art & design, nor to small specialist institutions or other institutions with less resource capacity. [HEI]

However, in principle, the majority of responses indicate support for the policy in driving a broader sectoral and cultural shift towards OA. Consultees across all groups felt that improved access will result in greater exposure of research and communication of outcomes, drive future research,

¹⁴¹ Question 60. Do you foresee any benefits for you, your organisation or your community arising from UKRI's proposed OA policy?

collaboration and innovation, and support the translation of findings into practice (that is, increase impact). These responses relate to the benefits of OA more widely, beyond the proposed UKRI policy. There were fewer references to the benefits of the policy itself, but some consultees from a variety of groups felt that it will help to drive changes in researcher, institutional and publisher behaviour to be more open, raise awareness of and make OA a higher priority, and encourage more open and transparent practices.

More broadly, the transition towards OA and immediate accessibility opens up questions around how researchers can be helped to make sense of the ever-growing content and data in more efficient ways. We are interested to learn more about the role of machine learning and artificial intelligence in finding relevant publications, reducing duplication of research and enhancing reproducibility efforts (e.g., through optimisation of search engines such as PubMed and UberDimensions). UKRI's proposed OA policy will no doubt move these conversations forward. [Other user/funder of research]

A move towards greater open access through this proposed policy will move us towards greater use and reuse of UKRI-funded research. There will be long-term benefits of reducing subscription costs as similar policies are adopted worldwide and an ever proportion of the world's research literature is made available OA. We are currently in a hybrid state – with both subscription and OA costs. Funders such as UKRI can help to accelerate the change and ensure that publishers do not use current spend as a baseline for future revenues. If policies aligned, both within UKRI and with other national and international funders, then there will be benefits in streamlining processes within institutions and lowering overheads. [Library]

Could drive more innovation across the publishing sector in terms of engaging with audiences, encouraging publishers to think differently. [Publisher]

If managed carefully, this policy will pave the way to an OA future; something that all publishers support. As the previously cited evidence in this response suggests, an increase in OA will likely see an increase in downloads and citations of UK research, and thus a broader readership of UK-funded research. Publishers particularly welcome the building momentum for read & publish deals, and the expanded support for a gold OA model. Publishers are equally excited to set a positive international precedent. If the policy can support smaller presses transition their portfolios and can ensure AHSS disciplines are able to continue to publish via short and long-form outputs, the UK can become a helpful case study for the rest of the world. Finally, this process will also be helpful to better understand the OA funding in the UK. Where the required funding is fairly redistributed or amplified, we will see a more successful and sustainable policy come to fruition. However, all these benefits will only be realised through a fair and considerate OA policy, which allows publishers to continue investing in the UK's research sector. [Publisher]

Some consultees say that although the short and medium term impact will be to disrupt the publishing model significantly, the long term benefits will be new and affordable approaches to publishing, and reduced subscription and access costs. Some say that the introduction of technical standards will help to improve efficiency and reduce the burden associated with manual reporting, but again often with the caveat that reporting processes are streamlined so as not to create additional workload.

Disadvantages or inequalities resulting from the OA policy

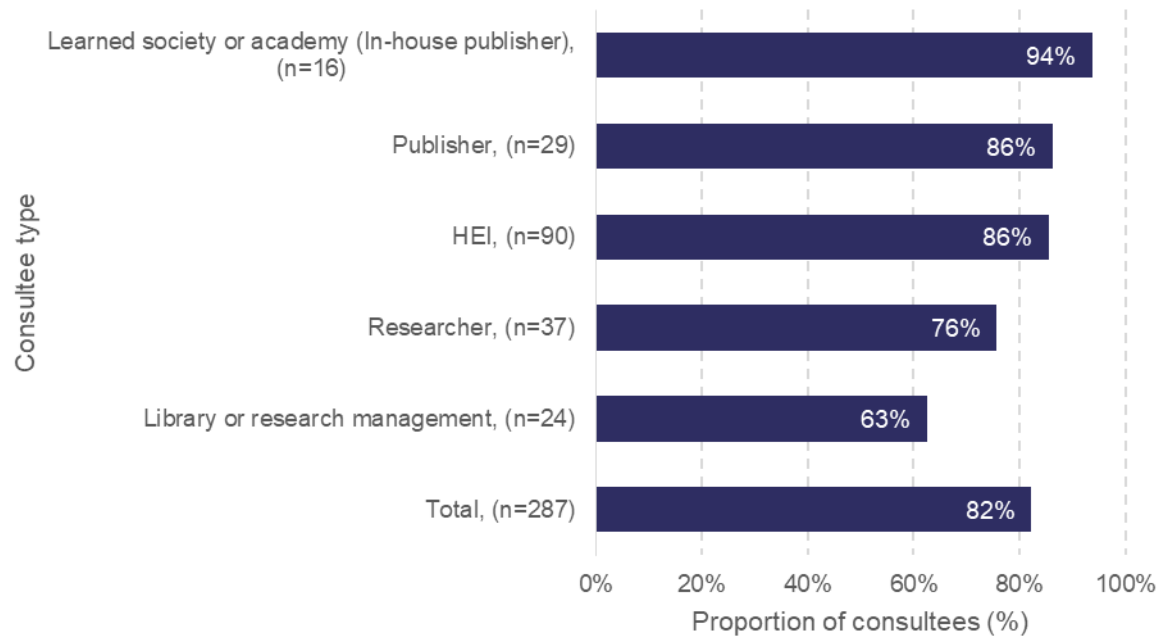
More than four in five (82%) consultees responded to Question 61 which asked: *Do you foresee UKRI's proposed OA policy causing and/or contributing to any disadvantages or inequalities?*¹⁴² The same proportion of these consultees (82%) felt they could foresee disadvantages or inequalities, regardless of the consultee type (Figure 30).

¹⁴² Question 61: Do you foresee UKRI's proposed OA policy causing and/or contributing to any disadvantages or inequalities?

A number of potential disadvantages and inequalities are suggested, largely focused around financial implications and reiterating concerns raised elsewhere in consultation responses. Those implications focussed specifically on funding and costs are discussed in Section 3.6.

Some consultees feel that researchers will be restricted in their academic freedom of choice over where they publish their research if they are unable to meet publication charges or if the publication venue does not offer a compliant route to publication. They say that this may be particularly true for disciplines within arts and humanities where there are currently fewer OA options, where small or subject-specialist venues do not or are unable to offer OA, and for international journals. Consultees say that an inability to collaborate or publish in international venues, as well as issues around third-party content and licensing (permissions as well as additional costs) could create significant inequalities for some AHSS disciplines and risks UK-based research becoming less visible and accessible.

Figure 290: Proportion of consultees who could foresee UKRIs OA policy contributing to disadvantages or inequalities by consultee type



Source: Consultee responses, March to June 2020

Many of those commenting say that early career researchers (ECRs) will be particularly affected due to a lack of access to funding to support OA costs and that this will be potentially damaging to these researchers in establishing and progressing their careers. Often reasons for this were not stated, but where they were, ECRs were highlighted as facing additional barriers and challenges more generally in the academic environment such as ‘precarious contracts’ and less time available for writing papers and grant applications. They were also highlighted as at risk of more specific issues resulting from OA such as an inability to publish in a ‘flagship’ journal if it is non-compliant, not having the time to commit to the administration required, being more unlikely to hold individual grants and potentially overlooked for limited APC funding at their institution.

The current block grant system favours those who have a track record in grant success, rather than early stage researchers. HEIs who do not have an OA block grant have limited funding streams to support their early stage researchers to achieve OA at the current time. [HEI]

The 'precarious nature of the academic career' for ECRs and the ways in which this career structure interrupts ECR access to OA funding is noted in UUK's 2019 Evidence Review (p. 18). It does not appear (based on the dearth of references in the consultation document to ECRs) that UKRI has accorded sufficient thought or provision to the relative disadvantage of ECRs in the proposed models compared to their current situation. Postdoctoral ECRs either need exemptions from green and gold OA requirements (for example, for REF) or continuous access to institutional repositories (for example, from their doctoral universities) and funding (from Research Councils and/or JISC) to R&P deals. [Learned society which outsource publishing]

We foresee potential implications for ECRs in section B. For example, ECRs currently feel pressurised to publish with an established press. Our concern is that if many established presses are non-compliant (or, for example, only offer compliant BPCs) an ECR may feel pressurised to either turn down a book offer or publish in a non-compliant press. Either option could have consequences for the ECR. Regarding edited collections, many ECRs act as editors to these collections as part of their career development. In the humanities, particularly, many of these collections are based on conferences which have limited funding. We are concerned there may be additional pressure on an ECR if they are the only UKRI funded researcher on the project, especially if they are acting as editor and the fellow contributors are not UKRI funded. Again, if a green-compliant option is not offered by an established press the ECR may again be penalised through no fault of their own. [HEI]

Some consultees also note that independent and retired researchers with no institutional affiliation or funding will also be unable to continue to publish if publishers adopt a fees-led model. Examples given were generally individuals who leave the grant-holding university. Others highlight that women and BAME staff will be disproportionately affected and that the impact of the coronavirus pandemic as well as the proposed OA policy will exacerbate existing inequalities within higher education for these groups, although this was not explained in more depth by respondents.

Some consultees also feel that smaller publishers and institutions, as well as learned societies, will disproportionately suffer compared to larger publishers and institutions. Larger publishers and institutions were felt to be in a better position to negotiate transformative agreements. Respondents from learned societies in particular highlighted the challenges they felt they would face in being unable to compete with large publishers if their publishing and subscription income was reduced, which would reduce the diversity of the publishing landscape. This concern generally related to the green OA route with zero embargo and CC-BY licence (see compliance concerns in section 3.9, p.133). However, it was also noted by several respondents that the more research-intensive universities will pay a larger share of the costs associated with OA if the model shifts from Pay-to-Read to Pay-to-Publish.

Implications of the OA policy for low-and-middle-income countries (LMICs)

Four in five (79%) consultees who answered identified *positive and/or negative implications of UKRI's proposed OA policy for the research and innovation and scholarly communication sectors in low-and-middle-income countries* (Question 62¹⁴³). Three quarters (74%) of all answering consultees identified an implication for LMICs and differences by the larger sub-groups ranged from 66% of researchers to all but one (94%) of the seventeen learned societies with an in-house publishing arm that responded. The consultation received a single response from an organisation based in a LMICs.

¹⁴³ Question 62. Do you foresee any positive and/or negative implications of UKRI's proposed OA policy for the research and innovation and scholarly communication sectors in low-and-middle-income countries?

Open responses highlighted that LMIC researchers and scholars will be both positively and negatively impacted by the proposed policy. Almost all of those commenting say that as readers and users of research, the academic community in LMICs will be positively impacted as the policy will support the removal of barriers created by pay-to-read research, with this considered vital for enhancing equality of access to research.

In contrast, as producers of research, consultees felt that the academic community in LMICs will be negatively impacted. Consultees say that researchers in LMICs will be prevented from publishing in UK-based venues as they would be unable to fund the same level of open access, and may instead choose to publish in venues in other leading publishing countries (for example, the US). This would be detrimental both to UK-based venues and the academic community. Supporting actions suggested were waivers for LMIC researchers, particularly for long-form outputs, maintaining green OA routes to allow low- or no-cost OA publication, and supporting publications in local languages.

Consultees say that some publishers already help to support LMIC researchers and institutions through initiatives such as Research4Life, by providing low cost or free access to its publications, and through reduced or waived publishing charges. Some consultees note that publishers must be able to retain flexibility in their business models (for example, hybrid journals) in order for international researchers to continue to contribute to the academic knowledge base in the UK. Some consultees reiterate concerns that the policy will negatively impact international collaboration and restrict the global reach of UK-based and collaborative research.

There are both advantages and concerns. In terms of accessing research, the policy will benefit academic researchers and other audiences, including business, innovators, practitioners and the public, from low and mid-income countries. In terms of publishing research, the longer-term flip to full open access may disadvantage researchers whose institutions cannot afford the publication charges. Solutions to this include waivers for researchers from low and middle income countries; and, more effectively, encouraging the developing of a competitive system where not all publishing models rely on the APC. [HEI]

For some UKRI grants publication costs for LMIC are ineligible (e.g. GCRF GROW call). This poses a huge challenge to LMICs – they either publish in free, non-OA grants, or they have to cover costs from overheads, or they have to publish with richer northern institutes who can cover the costs (and this of course is an impediment to independence). [HEI]

Any reduction in the international development activities [we] and other learned societies are able to support, associated with implementation of an OA policy which renders our operating model financially unsustainable, could have negative implications for researchers in low-and-middle-income countries. The [press]'s international relationships and reputation enable us to bring together scientists and organisations from around the world, building the cross-border links that fuel scientific discovery and technological innovation. We also work with other national physical societies to shape overseas development programmes; for example, we support the Future STEM Business Leaders programme in Tanzania which encourages secondary school students to apply their education in science to solve problems in the local community through the creation of a business. In addition, [press]'s current economic model enables it to support corresponding authors based in low income countries to publish in its respected peer-reviewed OA journals through a fee waiver, developing opportunities for international collaboration and aiding the dissemination of research. [Learned society with in-house publishing arm]

Open Access has been championed by the global North with little consideration for the ability of the global South to participate. Even small OA fees are prohibitive in many parts of the world, and the remittance of those monies could be better applied to advance research in the global South. The West should not mandate or dictate global policies for how Open Access should be conducted. Open Access should enhance the availability of research rather than prohibit low-income countries from contributing to the publishing ecosystem. Mandated OA must not increase the digital divide, resulting in a system that is less equitable than the current one. Waivers for these regions need to be funded. And if supported, UKRI should budget for these expenses. [Learned society with in-house publishing arm]

Supporting actions to incentivise OA

The final question of substance for the consultation asked whether there were *any other supporting actions (not identified in previous answers) that you think UKRI could undertake to incentivise OA?*¹⁴⁴ Over a third (35%) of all consultees said there was, with responses split fairly evenly between the larger consultee sub-groups.

Education, awareness and advocacy

The largest group of responses in this section related to education and increasing awareness of or advocating for Open Access, and these suggestions came from most respondent types. This referred to the need for widespread buy-in to OA policies and that this might require a cultural shift that sanctions for compliance or incentives would achieve. Several stressed that not all researchers understand the benefits of OA, and engaging proactively with this group is crucial to any cultural shift. A small number suggested that this should be targeted at specific disciplines, and that humanities in particular require support with messaging.

Encourage more researchers to have a greater and balanced understanding of open access publishing and the opportunities and challenges it poses for all stakeholders. The level of knowledge among the academic community is generally low, as exemplified by a recent...meeting with its community...and anecdotally too from many other learned societies in social science. [Learned society which outsource publishing]

Work with learned societies and others to communicate the benefits of OA to researchers. We have strong links to our research community and are keen to partner on this. [Learned society with in-house publishing arm]

Webinars for grant holders and online training resources specifically targeted at grant holders around the topic of open access and open research, dealing with 'why' the OA policy exists would be valuable. Whilst library/Research services staff do their best to gain traction with researchers on these topics, having a major funder act as an advocate would provide a great deal of additional clout. While some academic researchers are very engaged in arguments around Open Access and open research practices more broadly, a number view OA as a compliance undertaking and an administrative chore. Providing an intrinsic, as well as extrinsic, motivation to authors to comply with OA practice would be very valuable. [HEI]

When the policy is announced, UKRI should consider supporting it by with a national publicity campaign which demonstrates the benefits of OA and highlights the value to the tax payer. The sector collectively should work to make OA synonymous with public dissemination of science and art in the same way as free access to museums operates. [HEI]

Most of the barriers are caused by human attitudes/emotions. It would be good to have lectures/seminars/events making people feel that OA is exciting/beneficial. [Researcher]

Further clarity and information was also suggested around roles and reuse rights, responsible use of metrics, guidance for those institutions not in receipt of a block grant, and generally working towards making compliance as easy as possible. Education and training around ensuring compliance was considered necessary for some researchers, institutions or libraries.

Gathering evidence of the benefits and impact of OA was suggested as a method of helping to educate and raise awareness, and contribute to a wider shift in thinking about OA. This could include running pilots and gathering more evidence on the impact on certain groups or organisations.

¹⁴⁴ Question 64: Are there any other supporting actions (not identified in previous answers) that you think UKRI could undertake to incentivise OA?

Stakeholder engagement

Responses to this question also stressed that the buy-in required for a cultural shift towards OA reached beyond education and awareness and required considerable stakeholder engagement. Publishers were often mentioned as a key group to engage in order to work towards sustainable and scalable OA, but also learned societies as representing specific disciplines that might be more impacted by the policy than others. Some suggest that multi-stakeholder working groups or forums should be created to enable continued engagement and dialogue between UKRI and the sector, and to help identify, support and overcome challenges that occur during the initial implementation of the policy. Several acknowledge that this is a complex landscape with many stakeholders that need to be involved if the required cultural shift is to be achieved.

The fact that Pay-to-Publish has existed as a model for almost two decades, and still accounts for only 20% of articles published indicates that there are significant barriers to the model's adoption ("demand"), particularly since the vast majority of journals enable this option ("supply"). These barriers can be addressed, but not if they are ignored. They will not simply disappear with a top-down mandate. They are structural, reflecting the global nature of publishing, including the need for researchers to read articles from around the world, alongside the desire to make articles from a location (in this case the UK) Open Access. The two key barriers are: (a) funding flows and levels, so that a research-intensive nation (the UK) and its research-intensive institutions can pay to make their own outputs OA on a Pay-to-Publish basis in the long term, while in the short to medium term also continuing to access 93% of non-UK articles, most (80%) of which are not OA; and (b) Researcher preference, since even when policies exist and funding for gold OA is made available, authors do not always comply. These reasons need to be understood and addressed at source. No single stakeholder can or should address these complex challenges. All stakeholders will need to engage. We strongly advocate for collaborative and sustained engagement among funders, institutions, publishers and researchers to identify pragmatic ways to address challenges... we suggest that UKRI forms a multi-stakeholder forum to ensure collaborative and sustained engagement among funders (i.e. UKRI), institutions, publishers and researchers. Its aim would be to shape and monitor policy implementation, identify barriers to overcome, and to recommend pragmatic ways to address them. We also propose pilots to test out ideas, and we welcome partnering with UKRI so that the risks and benefits of models can be tested and validated before wide-scale implementation. [Publisher]

A change of this magnitude has the potential to cause chaos, add complexity, and increase costs all around. Facilitating open access should be the goal, but to bring about the desired change, all affected parties—from researchers to publishers to institutions must be brought into alignment. We urge you to ensure adequate understanding and support from each community (and across disciplines). From our interactions with researchers, it has become evident that they are confused by the shifting requirements. There is a duty to ensure that their views are sought and their needs are broadly met. [Learned society with in-house publishing arm]

Funding and financial support

Consultees reiterated concerns about a lack of funding to support OA costs and suggest that additional funding to help cover these costs (largely APCs but also labour costs of compliance) would help to support compliance. A small number referred to funding in relation to working with the publishing industry to reduce APCs rather than continue to fund them.

Some consultees reiterated questions around UKRI's position on their funding of OA costs. Some suggest ring-fencing of funding within grants to support OA costs with appropriate conditions (for example, funding is returned after five years from the end of the grant period if not used). Other points made under financial support include mechanisms to support learned societies who lose income, funding for a central repository, support for humanities publications in particular and further work with and incentives for publishers to encourage them to be compliant and adapt publishing models and practices. This could be through continuing to support publication in hybrid journals but *"only those where publishing fees are restricted to a certain percentage above non-OA submissions"* [Business].

Support alternative infrastructure or systems

A small number of suggestions were made around the need for supporting alternative infrastructure and innovative approaches to OA. Many of these have been covered in Section 3.7, and reflect the desire for UKRI to support the current diversity that currently exists within the publishing industry, but responses within Q64 include:

- the subscribe-to-open “*Berghahn and Libraria ‘Open Anthro’ initiative*”¹⁴⁵ [Learned society which outsource publishing]
- “*the launch of a selective “UKRI Press” (or imprint) for funded long-form outputs*” [HEI] or investing in open source infrastructure for the production of books, with this infrastructure “*governed and run by the communities involved in academic publishing themselves on a not-for-profit basis*” [HEI]
- support for institutions to develop “*an ‘open research framework’ to help embed open practices within institutional research cultures*” such as communities of practice, research groups showcasing research, sharing best practice [HEI]
- “*funding for OA initiatives with University Presses and other not for profits*” [Publisher]

A number of consultees felt that a wider shift towards OA could be supported by reinforcing the principles of DORA. Several felt that this would also decouple the association between research value and quality and the status or prestige of the journal or publication venue. Some say that without this change it will be difficult for new and innovative publishing models, routes and practices to thrive, and that the UK will struggle to implement OA effectively. It was felt that UKRI endorsement of DORA would send underline a commitment to cultural change (and align with Plan S and Wellcome policies).

Reward good practice

There was an overall feeling that incentives would be more beneficial to compliance than sanctions. A few respondents had ideas for rewarding good practice – not just compliance, but those who go above and beyond to commit to OA, such as sharing underlying data as well as publishing OA. Suggestions mostly centred on how mechanisms could be put in place to give more credit to authors who publish OA when their work as an academic is assessed or evaluated. In particular, several suggested that this could include an accumulation of points or credits from publishing OA that could count towards grant applications. DORA was again referenced as a way to demonstrate a researcher committing to OA. A small number felt that UKRI could encourage universities to consider this in promotion or recruitment practices.

¹⁴⁵ Respondent gave the following link <https://www.berghahnjournals.com/page/open-anthro>

3.11 Considerations specific to the Research Excellence Framework (REF)

Overview

Eight questions in the consultation document covered alignment between OA policy and the forthcoming REF-after-REF 2021. Four questions covered articles and four monographs, book chapters and edited collections. Responses to questions are inter-related and, in many cases, consultees explaining their thoughts in open responses tended to reiterate the same points over.

The main message is that the scope of the REF is far bigger than that covered by UKRI funded research, which represents a small proportion of all REF eligible outputs. Consultees felt the UKRI OA policy should align with REF policy in principle but OA policy should be less stringent. Consultees also felt REF-after-REF 2021 OA policy should also offer exceptions as the funding needed to support OA costs would be impossible to sustain. Many consultees were concerned about the impact on institutions in being able to participate in the REF. The largest response to most of the questions regarding the REF were made by representatives of HEIs and publishers.

3.11.1 Research articles

Defining research articles in relation to REF-after-REF 2021

Nearly nine in ten (87%) of all consultees responded when asked whether there were *additional considerations that the UK HE funding bodies should take into account when defining research articles that will be in-scope of the OA policy for the REF-after-REF 2021*¹⁴⁶. More than two in five (42%) of those responding said the UK HE funding bodies should take into account additional considerations.

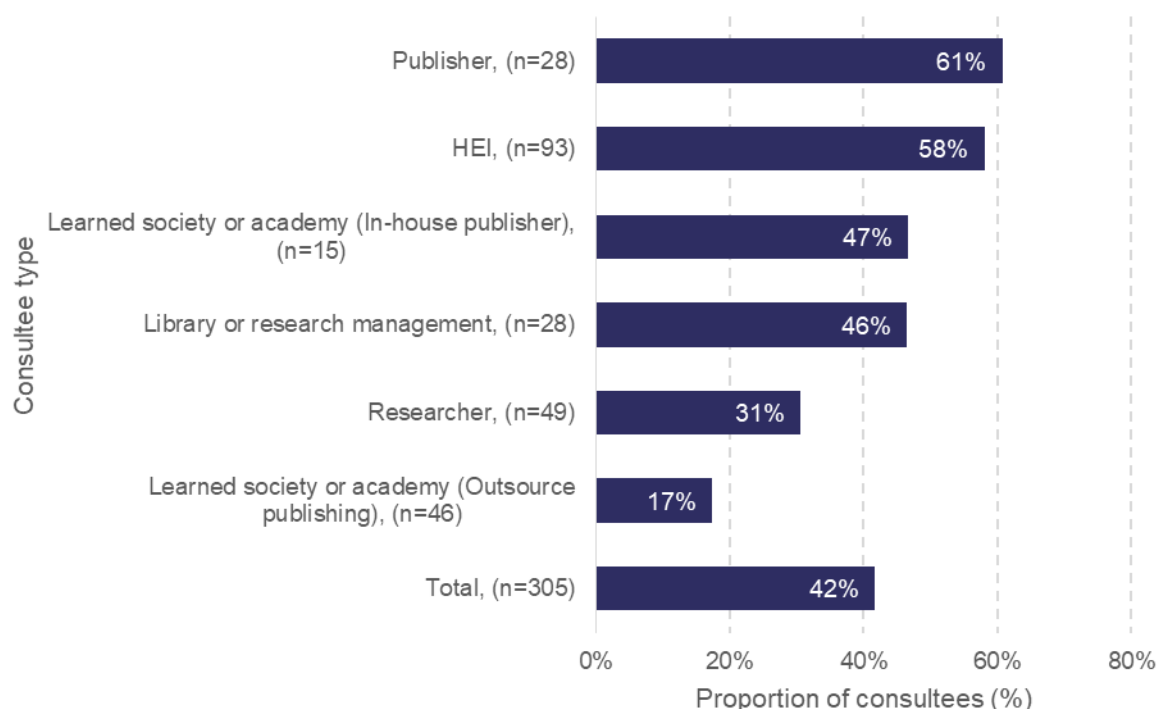
Figure 31 shows consultees representing publishers (61%) and HEIs (58%) were more likely to cite additional considerations. Responses to this question from both groups and were also a defining feature of their associated Logit models (Appendix 3), meaning their views on this question influenced their responses to other questions. Conversely, representatives of learned societies which outsource publishing (17%) and researchers (31%) were least likely to offer additional considerations in response to the question.

Consultees most frequently reiterated questions raised in responses to question one of the consultation. As discussed in section 3.1.1, consultees across all respondent types requested clarity and guidance concerning a range of specific outputs that may fall within the broader definition of 'research article', including conference proceedings, reviews, methodological papers, opinion pieces, case studies and translations.

Consultees also reiterated concerns around identifying whether an output has been peer reviewed (many consultees raised these considerations), how conflicting Versions of Record (VoR) should be handled (mostly consultees from HEIs and libraries) and requested greater consideration of and clarity on the role of pre-prints.

¹⁴⁶ Question 2: Are there any additional considerations that the UK HE funding bodies should take into account when defining research articles that will be in-scope of the OA policy for the REF-after-REF 2021?

Figure 301: Proportion of consultees stating that additional considerations should be taken into account when defining OA in-scope articles for REF-after-REF 2021 by respondent type



Source: Consultee responding to the question, March to June 2020

Beyond these questions, a number of consultees supported alignment between the UKRI OA policy definitions of in-scope articles with the REF-after-REF 2021 definitions. Several representatives from HEIs, publishers and learned societies stressed that the policies should be as closely aligned as possible to avoid confusion around compliance, reduce unnecessary administration costs and enhance equity of access.

However, consultees also indicated that current REF policy has a broader definition of 'research article' which they felt should be considered when aligning policies. Some felt that UKRI policy should not be applied in the same way to all outputs that would be eligible for REF submission, and that to do so would result in significant practical and financial challenges. In particular, consultees said that if the proposed UKRI OA policy definitions, scope and requirements (e.g. immediate OA) were mirrored in the REF-after-REF2021 policy for all REF eligible work, this would be prohibitive for researchers and institutions. In particular, consultees felt this would present barriers to participating in the REF exercise for authors who do not have UKRI funding or access to funding to support OA costs (e.g. early career researchers).

Consultees felt that the ability of these groups to comply and thus participate in the REF will be severely restricted by the proposed UKRI OA policy, either because they are unable to publish OA in the publication venue of their choice, or because they will be unable to meet OA publishing charges without financial support (which they said was likely to be prioritised for established researchers).

There are major implications for those who are not supported by UKRI but these have not been considered at all in the document. Independent researchers, those who are non-employed and 'between jobs' will have more limited opportunities to publish in scholarly journals. They have no access to institutional funds with which to pay page charges, etc. They will be entirely dependent on rationed, grace-and-favour support from journal editors - having to apply for charitable support. This is

fundamentally incompatible with the right to public under peer review, which has operated until now. This is of particular importance in the social sciences and humanities, where many continue to publish long after retirement. It is also important for those building a career but currently without employment - they are to be expected to pay to build up the research portfolios that are required for entry to the academic system. [Researcher]

First, the most prestigious journals [in our discipline] are in the US, and it remains unclear what their model for OA publishing will be. If it entails high APCs, scholars may no longer have the academic freedom to pick the best publisher and may be forced instead to choose the cheapest – reducing academic freedom and the quality of peer-review. Second, unless QR-related research funding includes a big increase to cover APCs or ‘publish & read’/‘read & publish’ agreements become widespread, there will be an impact on equality, diversity, and inclusion (EDI). It is unlikely universities will prioritise APCs for early career researchers without additional funding. [Learned society which outsource publishing]

In addition, a small number of consultees noted that the UKRI policy as proposed does not allow for future formats that may emerge, placing the policy at risk of becoming quickly out-dated and outpaced by advances and innovations in scholarly communication. Some consultees suggested that flexibility in the policy will need to be retained to accommodate changes in the future research and publishing landscape.

We would support moves to ensure consistency between the requirements of the new UKRI open access policy and those that will be introduced in the REF-after-REF 2021. Divergence in open access policies would mean complexity for authors and institutions, and likely generate significant cost increases in administration, communication and monitoring of compliance. [HEI]

Currently the REF policy includes everything in a journal including marginals, letters, commentaries, methodologies, technical reports, case studies, and reviews, these should be considered out of scope. We require clarity on if publications that merge the boundaries between the original research and review content types, are they in or out of scope? [HEI]

We are in favour of zero length embargoes for articles, but the REF-after-REF policy, which has a wider scope that may include articles with no direct funding mechanism for gold OA, must make reasonable allowances for green OA. Even if zero embargoes are enforced there needs to be an allowed period in which it is reasonable to expect authors and institutions to have the time to deposit and make their versions available. [HEI]

Considerations for OA routes, publication venues and embargo periods for REF-after-REF 2021

Nearly nine in ten (88%) of all consultees responded when asked whether there were *additional considerations relating to OA routes, publication venues and embargo periods that the UK HE funding bodies should take into account when developing the OA policy for the REF-after-REF 2021*¹⁴⁷. Nearly three in five (57%) identified additional considerations, and HEIs (73%) were more likely than others to respond, especially compared to researchers. No relationships with other questions were identified in analysis.

Open responses relating to additional considerations for OA routes, publication venues and embargo periods generally reiterated points made in response to earlier questions concerning defining in-scope articles and challenges for compliance. Consultees highlighted that the challenges already outlined (and summarised below) would be exacerbated when considering the REF because the REF affects a wider range and greater volume of research outputs.

¹⁴⁷ Question 6: For research articles, are there any additional considerations relating to OA routes, publication venues and embargo periods that the UK HE funding bodies should take into account when developing the OA policy for the REF-after-REF 2021?

General alignment with REF-after-REF 2021 policy regarding routes, publication venues and embargo periods was preferred but some consultees raised significant issues with this (similar to question 2 responses). In particular it was felt that alignment would have a negative impact on the REF for individuals and institutions for a number of reasons. These included a negative financial impact on non-UKRI funded researchers or societies with no clear funding stream to pay for APCs and therefore, restriction on authors' options and choices for publication venue. In addition, it was felt that alignment would limit collaboration between researchers, especially international and industry collaborations. Consultees requested that appropriate exceptions (e.g., paragraph 99. suitable publisher) be continued in order to protect author freedom and choice and avoid restricting collaborative work or limiting REF eligible submissions.

Routes

A number of HEI and learned society consultees expressed concerns about the gold route¹⁴⁸ because they envisaged an increase in associated APC costs. Many of these consultees were not confident adequate funding would be in place to cover anticipated rising costs. A few learned societies which outsource publishing expressed the need for a "fully funded" gold route. In the main, green or hybrid routes were proposed across most types of consultee as a route that better aligns with REF-after-REF 2021 because it widens: the breadth of research that can form part of the exercise; and the variety of publication routes for authors. Publishers expressed preferences for fully funded gold or hybrid routes with a couple commenting such a decision would be the best way to allocate any funds available. Compliance concerns regarding the green zero embargo route are covered in section 3.9, p.133.

We strongly urge that if the current OA policy being proposed is applied to the REF-after-REF 2021, that two considerations are made. First, that sufficient government funding is provided to universities to cover the APCs their researchers will need to pay in order to publish with journals that make the final version of record immediately OA ('gold OA'). This is needed to ensure that equity, diversity, & inclusion is not adversely impacted, and that there is full access for all UK researchers to pursue the gold OA option where it is both available and the right choice for their research. To make this work, the government will need to work with the publishing community to ensure that APCs remain reasonable and appropriate, while maintain high-quality standards for peer-review. Second, given the importance of hybrid journals to publishing in the social sciences and other disciplines, in the UK and abroad, we strongly urge a more flexible approach to publication in these journals for the REF-after-REF 2021. Plan-S' new guidance, allowing for publication in hybrid journals that aim for transformation to full OA by the end of 2024, is an encouraging recognition of the challenges that the community faces in finding sustainable solutions and the time needed to do so. [Learned society which outsources publishing]

Publishers expressed preferences for fully funded gold or hybrid routes with a couple commenting such a decision would be the best way to allocate any funds available. Compliance concerns regarding the green zero embargo route are covered in section 3.9, p.133.

Embargo periods

In relation to REF-after-REF 2021, the main comments raised by consultees regarding embargo periods were the potential for misalignment. A number of consultees perceived that zero embargo periods (as per paragraph 47, option 2¹⁴⁹) would create REF challenges because UKRI funded outputs were a small proportion of all REF outputs. Stating a preference for a gold route with zero embargo was perceived by some as incompatible with the green route options they said was specified in the current REF policy. A few consultees (representing HEIs, learned societies and

¹⁴⁸ The gold route being a final published version of a research article with a CC BY licence, More on green, gold and hybrid routes is covered in Section 3.5 Licensing Requirements

¹⁴⁹ The version of record or peer-reviewed author's accepted manuscript is made freely and immediately available online at the time of publication in an institutional or subject repository; no embargo period would be permitted.

publishers) noted that zero embargoes on green OA routes could have a significant financial impact on publishers because of the high volume of articles published in that manner.

Seven consultees, mostly learned societies which outsource publishing, said green OA options with a (minimum) 12-month embargo period should be permitted and encouraged by the policy. This would limit the potential perceived risk of mass subscription cancellations from academic libraries should a zero-embargo become commonplace.

Were the green OA route to be preferred and applied to all REF publications, this could only provide a sustainable business model if appropriate embargo periods are maintained – in education for a minimum of 12 months. Permitting deposit without embargo could create an environment where librarians would be under financial pressure to cancel their subscriptions. [Learned society which outsources publishing]

However, around 10 consultees (nearly all from HEIs) noted that determining compliance within a window following the acceptance date of the article (as per current REF2021 policy) is problematic as it is not always possible to identify an acceptance date nor to demonstrate deposit in a repository within the time allotted. They suggested instead measuring compliance from the date of publication rather than acceptance.

We support the requirement to deposit the accepted version of the manuscript as enabling OA publication and believe this requirement should continue for the UKRI policy. At present, there is considerable bureaucracy associated with proving compliance with the REF policy, for example it is not always easy to identify an acceptance date and confirm that the paper has been deposited within a three-month window of that date. We would advocate focusing on measuring REF compliance based on OA availability at the point of publication or on deposit in a repository with public availability after an embargo period. [HEI]

Considerations for article licensing for REF-after-REF 2021

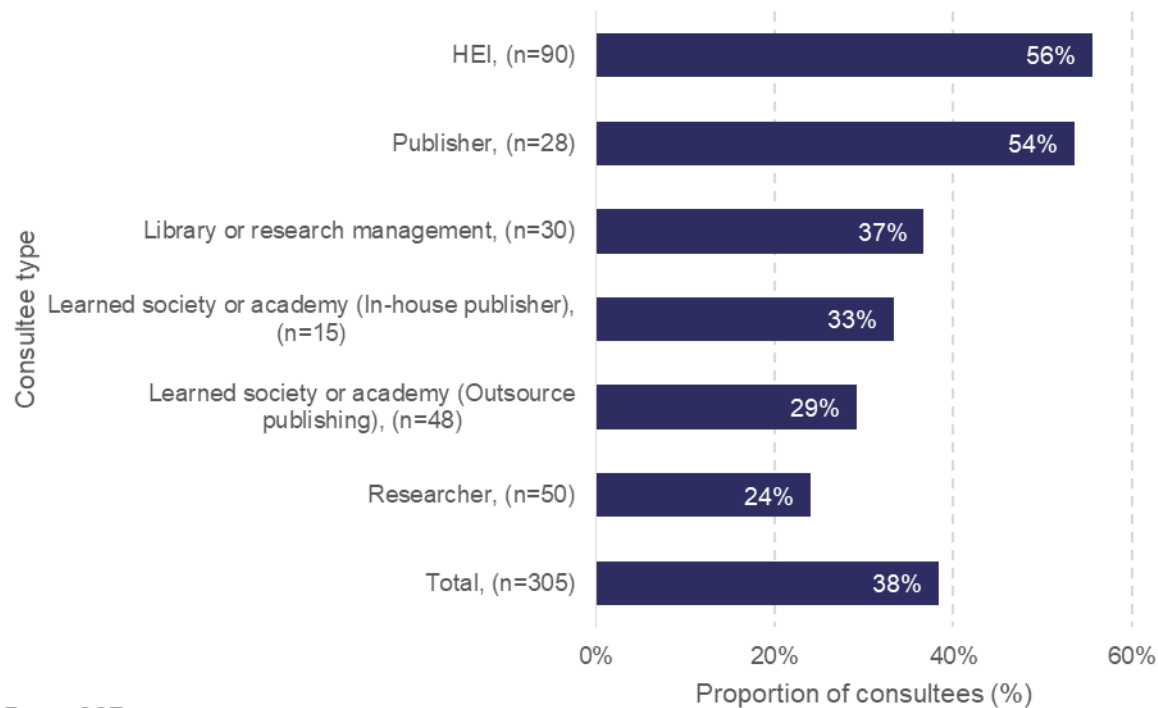
The same proportion of consultees (87%) offered an opinion on whether there are any *additional considerations relating to licensing that the UK HE funding bodies should take into account when developing the OA policy for the REF-after-REF 2021*¹⁵⁰ in relation to articles.

An inverse statistical relationship¹⁵¹ with those responding to this question and those identifying additional considerations regarding articles for REF-after-REF 2021 was found (Q2). As with Q2, representatives from HEIs (56%) and publishers (54%) were more likely to suggest additional considerations regarding licensing that compared to all consultees answering the question (38%, see Figure 32). The inverse relationship therefore suggests a number of consultees answered one rather than both of these questions.

¹⁵⁰ Question 11: For research articles, are there any additional considerations relating to licensing that the UK HE funding bodies should take into account when developing the OA policy for the REF-after-REF 2021?

¹⁵¹ Coefficient -0.40; $p < 0.005$. Comparing those stating yes to Question 2 versus response at Question 11.

Figure 312: Proportion of consultees stating that additional considerations should be taken into account regarding article OA licensing and REF-after-REF 2021 by respondent type



Source: Consultee responding to the question, March to June 2020

Views expressed regarding OA article licensing and REF-after-REF 2021

Consultees who provided responses concerning REF-specific considerations with regard to licencing largely reiterated general points made by others on the same topics (See section 3.3). Responses predominantly discussed the alignment between policies and placed particular emphasis the impact they thought this would have on authors. In favour of policy alignment, some other consultees noted that:

- Compatibility between UKRI OA policy and REF-after-REF 2021 policy is needed for institutions to be compliant with multiple bodies.
- A few HEIs noted that compliance with UKRI OA criteria should automatically mean compliance with REF-after-REF 2021 OA criteria as the best way of achieving compliance for both policies.
- Both policies should be sensitive to moral rights of authors and protection of their desire to prevent misuse and misrepresentation.

Consultees raising concerns or challenges of alignment again reiterated the unintended impacts of the policy on researchers who have no funding. Consultees questioned how the cost of CC-BY licensing will be met for the volume of articles that would be likely to need it for REF-after-REF 2021, and said that the administrative burden will also be increased if the licensing policy is applied to all articles eligible for REF.

Three learned society representatives wanted permission for all articles that were out-of-scope of UKRI's OA policy to use a CC BY-ND license because of challenges operating in a case-by-case basis.

These policies should align strongly, ideally completely, to the UKRI policy. Also, there should be one single method of showing compliance and any sanctions should be applied only once. New policies should be fully tested for issues, particularly across disciplines before setting the OA policy for the REF-after-REF 2021. [HEI]

The issues that we have raised [elsewhere] become even more acute in respect of the REF, given its much wider applicability, particularly for HSS research articles. There needs to be a blanket permission for use of the CC BY-ND licence for research articles that are out-of-scope of UKRI's OA policy, as there can be no practicable mechanism for granting permission on a case-by-case basis – at the very least a blanket permission for HSS articles. This worked successfully for REF 2021, and then also alleviated much concern in the sector. Similarly, there is a strong case for the OA policy for the REF-after-REF 2021 to include an exception for research articles requiring 'significant reuse of third-party materials', particularly as there will be even less likelihood of OA funding to help meet the increased permission costs that can be incurred [Learned society with in-house publishing arm]

Consultees also raised concerns about mis-use, plagiarism and mis-representation if CC-BY licenses are required, although no direct evidence of plagiarism or mis-use was presented by consultees. One consultee cited Jubb (2017¹⁵²) who noted that "evidence of such malpractice is hard to find" (p.184) when discussing potential loss of control over work for AHSS authors.

A few consultees said that testing, understanding and evidence of the impact of OA policy on AHSS disciplines in particular is needed before any application and implementation of the policy to the REF. Consultees requested that these concerns be considered and reflected in the REF-after-REF 2021 policy accordingly, for example through the use of exceptions.

Considerations for implementation dates for REF-after-REF 2021

Of all consultees, 86% responded to question 18: *For research articles, are there any considerations that UKRI and UK HE funding bodies need to take into account regarding the interplay between the implementation dates for UKRI's OA policy and the OA policy for the REF-after-REF 2021?*¹⁵³ Just over half (52%) of all answering the question felt there were additional considerations on implementation dates, especially responding consultees representing HEIs (84%).

As in the analysis of open responses to previous questions, consultees generally preferred alignment with timing and implementation dates of policies: some reservations were expressed about the impact on individuals or organisations. Consultees noted that delays to REF2021 and general disruption due to the Covid-pandemic have delayed the implementation of strategic planning. In addition, consultees re-emphasised that the scope and volume of articles eligible for REF submission is far greater than UKRI-funded research and as such, it is important to have as much time as possible to prepare for and implement policy changes for REF-after-REF 2021.

Preference for alignment of the policies was also driven by around 20 consultees' desire (mostly HEIs) to see as few different policies operating at the same time (within one REF period) as possible, and to avoid policy changes *within* a REF period. Consultees said that policy alignment would minimise confusion, reduce the administrative, financial and resource burden, and improve efficiency. Consultees felt that researchers, institutions and publishers are best able to support implementation if the timing of the policies is aligned as infrastructure, systems and processes can

¹⁵² Jubb, M. (2017) *Academic books and their future*. AHRC and The British Library. Accessed 1st September 2020: https://academicbookfuture.files.wordpress.com/2017/06/academic-books-and-their-futures_jubb1.pdf

¹⁵³ Question 18: For research articles, are there any considerations that UKRI and UK HE funding bodies need to take into account regarding the interplay between the implementation dates for UKRI's OA policy and the OA policy for the REF-after-REF 2021?

be changed once, reducing burden and increasing the likelihood of compliance, overall resulting in a more successful policy implementation.

The majority of those commenting wanted timing aligned for simplicity of implementation. However, many of these consultees also requested that flexibility be retained with regard to in-scope outputs, exceptions, compliance and sanctions. As noted previously, consultees felt that this flexibility is necessary both to encourage compliance and to protect or mitigate the impact of the transition on unfunded researchers, early career researchers, and those disciplines particularly within Arts and Humanities where OA publishing is less common and less well supported through existing infrastructure and funding to support OA costs.

It is important that the policies are synchronised as far as possible, otherwise there is risk of confusion and lack of clarity. Differences in the volume of research outputs falling within scope of the UKRI and REF policies, however, must be considered. Overall, time is needed to raise awareness and to ensure the readiness of institutional infrastructure. [HEI]

Flexibility should be retained for the REF-after-REF 2021 to allow deviation from the definition of in-scope articles articulated in the UKRI policy. Alignment on dates will, therefore, be very helpful for publishers as they bring their existing business practices in line with the new policies. Furthermore, publishers suggest that there is some consideration of the different support levels available for researchers in adapting to the new policies. It seems like that UKRI funded researchers may be better supported ahead of the REF process, which could offer an unintentional advantage down the line. However, we would again reiterate that the impact of the REF-after-REF 2021 will be even greater than the UKRI's new policy owing to the scope of its reach. UKRI should, therefore, be mindful that its already-dominant position in the scholarly communications market will be amplified through its influence over the REF-after-REF 2021 policy requirements. Proposals that compromise the sustainability and integrity of our community risk becoming even more problematic when scaled for the REF-after-REF 2021 OA requirements. Careful thought and consideration as part of an evidence-led approach is therefore essential when determining the UK's future policy path. [Publisher]

3.11.2 Monographs, book chapters and edited collections

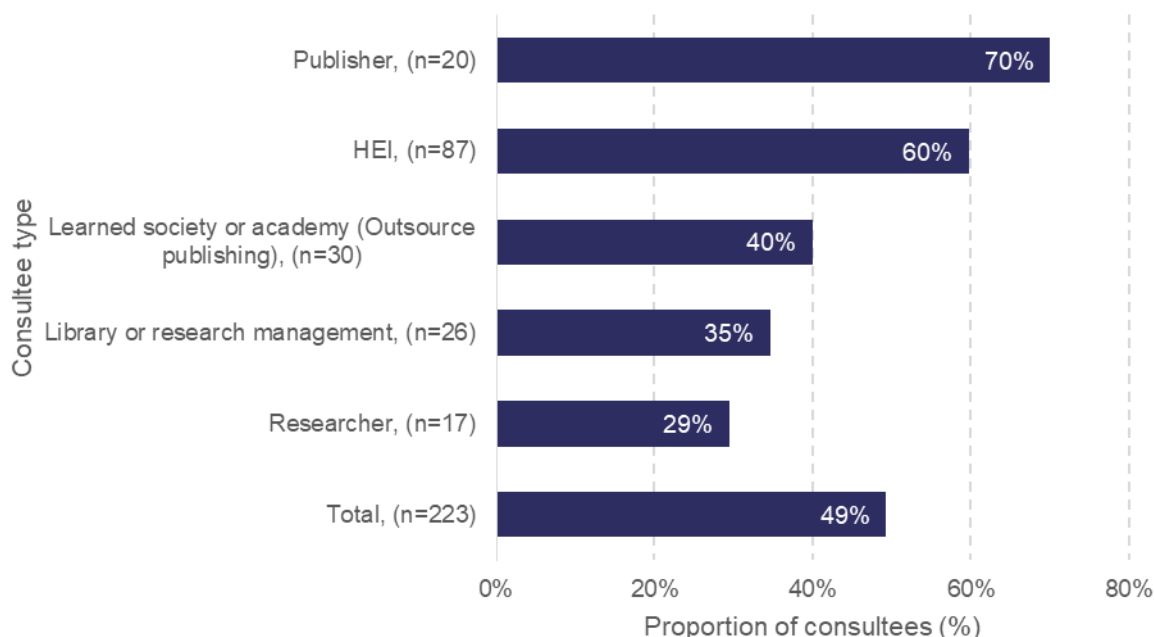
Considerations for in-scope definitions for REF-after-REF 2021

Fewer than two-thirds (64%) of consultees responded to question 36: *Are there any other considerations that the UK HE funding bodies should take into account when defining academic monographs, book chapters and edited collections in-scope of the OA policy for the REF-after-REF 2021?*¹⁵⁴ The level of response was lower by around twenty percentage points compared to similar questions regarding articles.

Half (49%) of those responding to the question said there were other considerations. As with earlier questions, responding consultees representing publishers (70%) and HEIs (60%) were mostly likely to suggest further considerations; researchers (29%) were least likely to do so (Figure 33).

¹⁵⁴ Question 36: Are there any other considerations that the UK HE funding bodies should take into account when defining academic monographs, book chapters and edited collections in-scope of the OA policy for the REF-after-REF 2021?

Figure 323: Proportion of question respondents stating that other considerations should be taken into account when defining in-scope monographs, book chapters and edited collections for OA policy and REF-after-REF 2021 by respondent type



Base: 223

Source: Consultees responding to the question, March to June 2020

In the open responses, consultees reiterated comments made in response to previous questions, most frequently discipline related concerns. Consultees felt that the impact of the proposed OA policy for long-form outputs will be greater on Arts and Humanities disciplines where there may be limited opportunities for monograph publishing. Consultees requested consistency across policies and consideration of, and clarity around, specific types of outputs including trade and ‘crossover’ books, musical scores, translations and commissioned works.

Consultees again emphasised that given the broader scope of outputs covered by the REF, there will be a significant financial impact on HEIs and researchers in meeting the costs of publishing monographs and other long-form outputs. They requested that REF OA requirements should maintain or extend the UKRI proposed exceptions so that researchers are not prevented from participating in the REF. However, one consultee noted that this risks becoming a ‘*perfunctory exercise where a research administrator deploys endless publisher exceptions*’ [Library or research management].

The limited nature of monograph publishing opportunities in some disciplines. Some social science learned societies, who publish in partnership with commercial publishers, negotiate for monograph publishing to be included as part of their publishing partnership. This is to ensure that opportunities for monograph publishing routes exist for scholars within the discipline. Monograph publishing outlets are becoming very restricted in some disciplines, owing to financial viability, and the publisher may not otherwise support it. This is one of many unquantified - and unquantifiable - benefits that arise from learned society collaborations with commercial publishing partners that are not taken into account in this consultation. [Learned society which outsource publishing]

This will be dependent upon how “green reliant” the monograph policy ends up being. If a significant portion of the solution for OA monographs is payment of book processing charges (i.e. gold), we are certain that institutions will not have sufficient funds to pay for this change. There is still an expectation amongst academic staff that library budgets are invested in print copies of monographs (and the reality

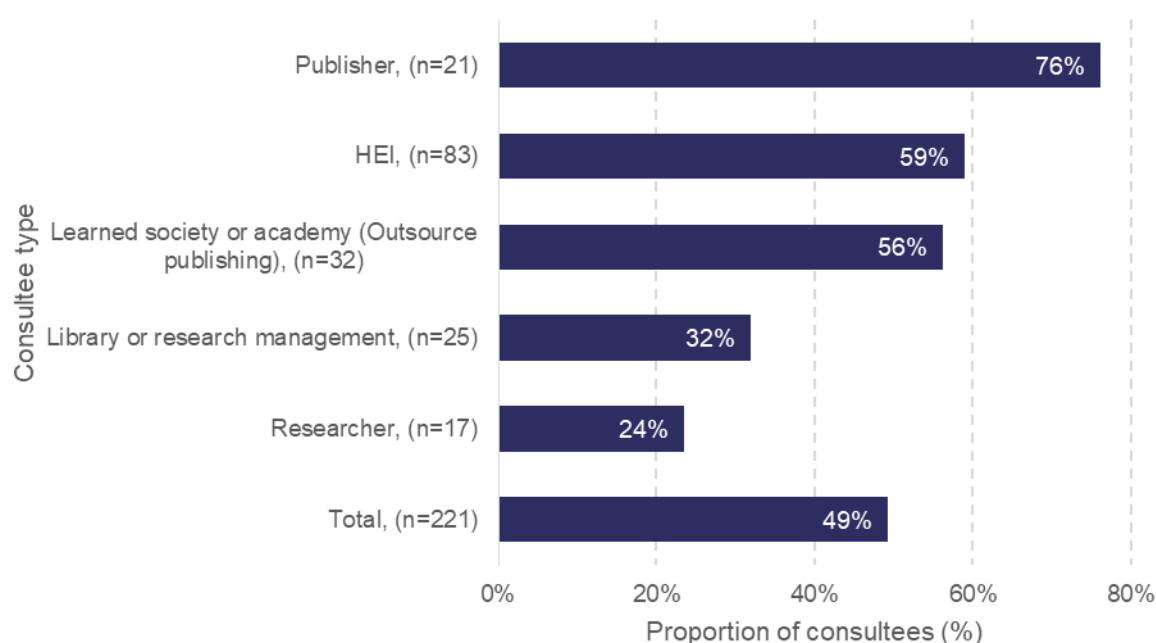
in journals is that OA has not offset library costs anyway). Should the policy rely much more heavily on a green route to compliance, there is less reason why a similar policy would not work for the next REF. For a green-focused solution we currently lack services (such as Sherpa) for book publishers, so institutions will either require those services to emerge or will be forced to spend significantly more time checking individual publisher policies.. [HEI]

Considerations for routes, deposit requirements and delayed OA for REF-after-REF 2021

Fewer than two-thirds (63%) of consultees responded to question 42: *Regarding monographs, book chapters and edited collections, are there any additional considerations relating to OA routes, deposit requirements and delayed OA that the UK HE funding bodies should take into account when developing the OA policy for the REF-after-REF 2021?*¹⁵⁵

Half (49%) of those responding to the question said there were additional considerations; the response rate was higher from the small number of responding publishers (76%). Researchers (24%) and consultees representing libraries or research management (32%) were least likely to respond (Figure 34).

Figure 334: Proportion of question respondents stating that other considerations should be taken into account regarding routes and deposit requirements for monographs, book chapters and edited collections when developing OA policy for REF-after-REF 2021 by respondent type



Source: Consultees responding to the question, March to June 2020

Consultees again in open responses requested that there be broad alignment between the policies for OA routes and deposit requirements, while retaining a flexible approach to allow for the additional complexity of publishing long form-outputs. In addition, some of these consultees

¹⁵⁵ Question 42: Regarding monographs, book chapters and edited collections, are there any additional considerations relating to OA routes, deposit requirements and delayed OA that the UK HE funding bodies should take into account when developing the OA policy for the REF-after-REF 2021?

welcomed the indication that compliance with UKRI policy will mean compliance for the REF policy. A desire for these policies to align was also found for articles.

Consultees requested that UKRI consider how to support authors with no funding from UKRI and limited funds to support publishing via OA, but are required to comply with REF requirements. Many of those commenting said that gold OA publishing for the volume of long-form outputs that would be REF eligible would not be feasible due to the cost, and advocated for a green route to compliance (with embargos) for these outputs. In contrast, others stated that the green route is not suitable due to the amount of post-acceptance work that both authors and publishers contribute to long-form outputs in order to bring them to a final published version. As such, some consultees questioned how high quality standards of publishing will be maintained if all outputs are required to be OA in order to be eligible for future REFs and gold OA publishing is not possible.

Again, alignment with UKRI policy is important to reduce confusion. However, we feel that the distinctive nature of monograph publishing should be properly considered in relation to both policies. This is especially crucial for unfunded monographs (a significant proportion of high-quality research in Arts and Humanities), which would be obliged to comply with any REF policy but may not be in the same financial position to cover the costs of making their work open access, especially through a BPC model. It is extremely important, therefore, that publishers are persuaded to allow green OA options. One consideration for REF could be a wider-ranging set of exceptions to the policy, including some based on scope. One example of this could include where a long-form publication has drawn on material that has been published in a previous journal which is OA, that this could satisfy the requirements for the whole monograph. [HEI]

Currently there is no viable model for funding OA monographs, book chapters and edited collections. The green OA route is not suitable for monographs and edited collections. Recognising the differences between books and journals is vital here. Chapter policies should be an exception. Publication costs for monographs and edited collections are much higher than for individual journal articles and the value added by publishers and investment in the AM version must be taken into consideration when considering appropriate embargo periods and green OA. HSS disciplines in particular produce research that has a very long shelf life. UKRI should make it easy for researchers to publish via the gold OA route by providing sufficient funding. UKRI should consider the implications for international collaboration and consider policies in other countries. The UKRI policy should not disincentivise international collaboration. [Publisher]

The proposed UKRI mandate for open access monographs would have major cost implications if mirrored in the OA Policy for the REF-after-REF 2021. The University could not afford to pay these costs. According to the University's repository data, its academic staff published [c300] books during the REF2021 publication period (2014-2020). Some of these titles will be trade books, exhibition catalogues, or creative writing, and therefore out-of-scope. Some of them will not be submitted as REF outputs. But even if 50% of these titles were in scope of the OA policy for the REF-after-REF 2021, the BPC cost for open access monographs would be approximately [£1.4m], which is the size of our HEQR annual allocation and clearly not a feasible option for the institution. It would not be in our interests to engage in REF if it would cost us more than we received in HEQR. Unless the funding bodies covered these costs, it would be more realistic for the REF policy to only mandate that book chapters should be made openly accessible, with embargo periods allowed. [HEI]

Considerations for licensing requirements and/or use of third-party materials for REF-after-REF 2021

Fewer than two-thirds (64%) of consultees responded to question 48: *Regarding monographs, book chapters and edited collections, are there any additional considerations relating to licensing requirements and/or third-party materials that you think that the UK HE funding bodies should take*

into account when developing the OA policy for the REF-after-REF 2021?¹⁵⁶ Of those that responded, two in five (41%) stated additional considerations with no meaningful variation by respondent type.

The majority of consultees making open comments on licensing reiterated that the UKRI and REF policies should be as aligned as far as possible. Referencing responses to previous questions other consultees broadly reiterated that they held concerns about the use of CC-BY licenses, including increases in costs and administrative burden. Some consultees welcomed the inclusion of CC-BY-NC/ND licencing and requested that this also be applied to REF-after-REF 2021 policy.

Some consultees also noted that ‘robust’ exceptions will be required for REF-eligible long-form outputs as they are more likely than articles to include third party materials and require permissions. A few consultees noted that it would not be practical for REF assessors to only have access to redacted versions of outputs as this might affect the ability to assess effectively. As noted elsewhere in the consultation, a few concerns were expressed as to whether authors would need to negotiate individual permissions for reuse where their output contains significant quantities of third-party materials. The reasons given (not necessarily in response to this specific question) were due to the potential volume of redaction necessary in some cases. Arts and humanities research was referenced in this instance due to the potential number of external images or attachments that may be required to create a strong argument in published research: redacting would make it very challenging to present cogent findings.

We welcome UKRI's indication that compliance with UKRI policy will also ensure compliance with REF policy, as well as the flexibility provided for REF policy to differ and potentially have less stringent requirements. Given the much larger number of books submitted to REF vs resulting from UKRI funding (we publish ~6 times more books that would be REF-eligible than result from UKRI funding), a mixed-model approach will be particularly important for REF. Therefore, for REF, we would advocate that both immediate OA of the published version and self-archiving of the author manuscript be compliant. We believe the manuscript self-archiving route is only viable with longer embargo periods (minimum 36 months) and that if a re-use licence is required, only a CC BY-NC-ND licence would be appropriate. Publishers invest in books significantly throughout the editorial process prior to the point of the accepted manuscript, advising on structure and focus and conducting multiple rounds of peer review (on both proposal and manuscript), and need to recoup costs. We would need more time than has been allowed by this consultation to consider the viability of the delayed OA route. [Publisher]

It would be unsatisfactory and unfair in a future REF if assessors only had access to redacted versions of outputs from which third party material had been removed. It would create a less-than-level playing field if some people could afford to include/ pay for images, sound files, colours, additional words (or however publishers decide to recoup their costs) and others could not. Again, ECRs or those without funding would be negatively affected at REF stage especially. [HEI]

Considerations for implementation dates and REF-after-REF 2021

A little over three in five (62%) of consultees responded to question 52: *Regarding monographs, book chapters and edited collections, are there any other considerations that UKRI and the UK HE funding bodies need to take into account when considering the interplay between the implementation dates for the UKRI OA policy and the OA policy for the REF-after-REF 2021 OA?*¹⁵⁷

¹⁵⁶ Question 48: Regarding monographs, book chapters and edited collections, are there any addition considerations relating to licensing requirements and/or third-party materials that you think that the UK HE funding bodies should take into account when developing the OA policy for the REF-after-REF 2021?

¹⁵⁷ Question 52: Regarding monographs, book chapters and edited collections, are there any other considerations that UKRI and the UK HE funding bodies need to take into account when considering the interplay between the implementation dates for the UKRI OA policy and the OA policy for the REF-after-REF 2021 OA?

Of those that responded, half (50%) felt there were other considerations. Responding consultees representing HEIs (70%) were the most likely to offer other considerations.

The majority of consultees who commented expressed a preference for alignment of the timing of implementation of OA and REF-after-REF policies on monographs etc. in order to avoid confusion and make compliance easier.

Note, however, that there was not a preference for alignment on the timing of OA policy between articles and long-form outputs. Some consultees noted that the lead-in time for publishing of long-form outputs is considerably longer than that of articles, and that careful consideration of the time-frame of in-scope outputs is required as some may already be within contract, or in negotiation or development phases.

As mentioned elsewhere, many consultees said that the transition to OA for long-form outputs is further behind that of articles, the costs are likely to be significantly greater, and that individuals, institutions and publishers require time to develop and implement the infrastructure required. The use of exceptions was again advocated by a number of consultees for those who are unable to comply with all aspects of the policy, and some consultees suggested that a phased, pilot or voluntary approach be adopted for the REF-after-REF, with a full implementation for the following REF-after.

In addition, some consultees noted that any progress and development made towards the transition to OA for long-form outputs has been affected by the disruption caused by the Covid pandemic, and that the ongoing uncertainty is likely to continue to have a significant impact on the sectors ability to be prepared for implementation of the policy.

Ideally the implementation dates should be identical, as any deviation is likely to cause confusion and lead to publishers and institutions fielding numerous questions. It will be important that for REF, too, exceptions apply to any works signed before 1 Jan 2024 to enable publishers to support authors in managing compliance. If the REF policy is announced significantly later than the UKRI policy (e.g. post 2020) a later implementation date is likely to be necessary in order for publishers to have enough time to support compliance. We would value a provision similar to that in the draft UKRI policy to allow exceptions for books signed prior to the REF implementation date whose contracts prevent compliance, as it is difficult to be sure at the point of signing exactly when a book will publish. [Publisher]

We encourage UKRI and Research England to consider aligning the implementation of these policies at least in part, to reduce the number of policies researchers need to interact with. In terms of the REF-after-REF 2021 policy this may be more appropriate to be implemented on a volunteer basis for the next REF, given that the policy will only come into effect part way through the REF period. But would apply in full from the start of the cycle for REF 203X. [HEI]

Appendix 1: Methodology

Quantitative analysis

Processing consultation data

The consultation questionnaire included a number of quantitative questions. There were four main types of questions posed:

1. simple yes / no questions asking whether consultees were for or against specific propositions
2. Likert scales measuring agreement or disagreement with policy proposals and propositions
3. tailored questions asking consultees to choose preferences regarding the timing of policy implementation or structural policy issues
4. a series of profile questions

Data was collected by UKRI via Survey Monkey and supplied to CFE in the form of text delimited CSV file. All variables were stored as text and were found to be structurally sound. The main data processing tasks were to transform text data into numeric values that could be analysed using SPSS.

Basic bivariate analysis

Frequencies were run on all quantitative questions to create a top-line analysis which can be found in Appendix 2.

Simple bivariate cross-tabulations were also run on all questions. The supporting Excel data tables provide cross-tabulations by academic discipline, capacity in which a consultee replied and size of organisation represented. The cross analysis breaks are:

1. **Disciplines:** Derived from response to question VII. Valid sample n=332
 - "STEM" those who selected medicine, health and life sciences and/or physical sciences, engineering and mathematics only; n=78
 - "AHSS" those who selected arts and humanities and/or social sciences only; n=57
 - "Interdisciplinary" those who selected that option, or those choosing three or more options at VII excluding "not applicable"; n=197
2. **Capacity:** Derived from a recoded question VIII. Valid sample n=350
 - "Researchers" those selecting / coded the researcher option; n=56
 - "Publishers" those selecting / coded into the publisher option; n=37
 - "Learned societies" all selecting or coded into one of three learned society options; n=79
 - "HEIs" those selecting / coded into the HEI option; n=96
 - "Others" comprises all other 16 options (including new codes) combined; n=82 of which 31 were from libraries or research management.
3. **Organisation size:** Derived from question XII. Valid sample n=244
 - "SMEs" all stating their organisation employs fewer than 250 people; n=101
 - "Large" = all stating 250 or more employees; n=133

Appendix 2: Quantitative response data tables

Data tables

This annex provides top-line descriptive analysis of the quantitative responses. Percentages may not sum to 100% due to rounding, or because some questions asked for a multiple response for the given items.

Profile questions

III. Please indicate who you are responding on behalf of...

Response	Frequency (n)	Proportion (%)
Yourself as an individual	70	20%
An organisation	242	69%
Other	38	11%

Base: 350

VII. Which disciplinary area(s) would you associate you, your organisation or your group with? Please select all that apply.

Response	Frequency (n)	Proportion (%)
a. Arts and humanities	184	56%
b. Medicine, health and life sciences	204	62%
c. Physical sciences, engineering and mathematics	166	50%
d. Social sciences	183	55%
e. Interdisciplinary research	185	60%

Base: 331

IX. UKRI will share responses to this consultation (excluding personal data) with its sponsor department, the Department for Business, Energy and Industrial Strategy (BEIS), and other UK government departments and agencies, to explore OA issues. Have you or members of your group applied or been part of an application for grant funding from the following? If applicable, please select all that apply.

Response	Frequency (n)	Proportion (%)
Made or part of grant application to: a. UKRI (including AHRC, BBSRC, ESRC, EPSRC, Innovate UK, MRC, NERC, Research England, STFC, as well as predecessor bodies, HEFCE and RCUK)	3	3%
Made or part of grant application to: b. UK Space Agency	48	40%
Made or part of grant application to: c. Department for International Development (DFID) and subsidiary bodies	89	74%
Made or part of grant application to: d. Department of Health and Social Care (DHSC) including National Institute for Health Research (NIHR) and other subsidiary bodies	102	85%
Made or part of grant application to: e. Department for Environment, Food and Rural Affairs (DEFRA) and subsidiary bodies	87	73%

Base: 120

VIII. What best describes the capacity in which you, your organisation or your group are responding (Recoded)?

Response	Frequency (n)	Proportion (%)
Researcher	56	16%
Publisher	37	11%
Learned society or academy with an in-house publishing arm	19	5%
Learned society or academy that outsources publishing	57	16%
Learned society or academy which does not publish	3	1%
Providers of scholarly communication infrastructure or services	9	3
Library or research management	31	9%
HEI	96	27%
Business	5	1%
Funder	3	1%
Public	2	1%
Other research	5	1%
Other user or producer	2	1%
Representative bodies	6	2%
Research Institutes / Research Performing Organisation	8	2%
Other	11	3%

Base: 350

XII. If responding on behalf of an organisation, please indicate your staff headcount (if known)

Response	Frequency (n)	Proportion (%)
< 10 micro business	55	23%
< 50 small business	31	13%
< 250 medium-sized business	25	10%
250+ large business	133	55%

Base: 244

XIII. If applicable, which researcher career stage(s) do you, your organisation or your group represent? Select all that apply.

Response	Frequency (n)	Proportion (%)
a. Postgraduate researcher	195	76.2%
b. Post-doctoral researcher	205	80.1%
c. Research leader (responsible for intellectual leadership and overall management of research projects)	242	94.5%
other	1	0.4%

Base: 256

Section A: Research Articles

In-Scope Outputs

Q1. To what extent do you agree or disagree that it is clear what research articles are in-scope of UKRI's proposed OA policy (see paragraph 46 of the consultation document)?

Response	Frequency (n)	Proportion (%)
Strongly disagree	3	1%
Disagree	26	8%
Neither agree nor disagree	21	7%
Agree	211	67%
Strongly agree	47	15%
Don't know	0	0%
No opinion	8	3%

Base: 316

Q2. Are there any additional considerations that the UK HE funding bodies should take into account when defining research articles that will be in-scope of the OA policy for the REF-after-REF 2021?

Response	Frequency (n)	Proportion (%)
Yes	127	42%
No	87	29%
Don't know	25	8%
No opinion	66	22%

Base: 305

OA Routes and Deposit Requirements

Q3. In setting its policy, should UKRI consider any other venues for peer-reviewed research articles which are not stated in paragraph 47 of the consultation document?

Response	Frequency (n)	Proportion (%)
Yes	60	23%
No	170	66%
Don't know	29	11%
No opinion	1	0%

Base: 260

Q4. Are there any specific challenges for you, your community or your organisation in terms of complying with the requirement in UKRI's proposed policy for immediate OA of in-scope research articles?

Response	Frequency (n)	Proportion (%)
Yes	246	77%
No	47	15%
Don't know	12	4%
No opinion	15	5%

Base: 320

Q5. Should UKRI's OA policy require a version of all in-scope research articles to be deposited in a repository, irrespective of whether the version of record is made OA via a journal or publishing platform?

Response	Frequency (n)	Proportion (%)
Yes	141	45%
No	116	37%
Don't know	29	9%
No opinion	26	8%

Base: 312

Q6. For research articles, are there any additional considerations relating to OA routes, publication venues and embargo periods that the UK HE funding bodies should take into account when developing the OA policy for the REF-after-REF 2021?

Response	Frequency (n)	Proportion (%)
Yes	175	57%
No	63	21%
Don't know	23	8%
No opinion	46	15%

Base: 307

Licensing Requirements

Q7. To what extent do you agree or disagree that where compliance with UKRI's OA policy is achieved via a repository, a CC BY licence (or Open Government Licence where needed) should be required for the deposited copy?

Response	Frequency (n)	Proportion (%)
Strongly disagree	64	20%
Disagree	54	17%
Neither agree nor disagree	35	11%
Agree	84	27%
Strongly agree	53	17%
Don't know	9	3%
No opinion	18	6%

Base: 317

Q8. To what extent do you agree or disagree that UKRI's OA policy should have a case-by-case exception allowing CC BY-ND for the version of record and/or author's accepted manuscript.

Response	Frequency (n)	Proportion (%)
Strongly disagree	26	8%
Disagree	65	21%
Neither agree nor disagree	43	14%
Agree	114	36%
Strongly agree	37	12%
Don't know	11	3%
No opinion	21	7%

Base: 317

Q9. Would the proposed licensing requirements for UKRI's OA policy, which exclude third-party content (see paragraph 55 of the consultation document), affect your or your organisation's ability to publish in-scope research articles containing third-party content?

Response	Frequency (n)	Proportion (%)
Yes	108	35%
No	96	31%
Don't know	63	20%
No opinion	42	14%

Base: 309

Q10. Are there other considerations UKRI should take into account regarding licensing requirements for research articles in-scope of its proposed OA policy?

Response	Frequency (n)	Proportion (%)
Yes	127	42%
No	74	24%
Don't know	44	14%
No opinion	61	20%

Base: 306

Q11. For research articles, are there any additional considerations relating to licensing that the UK HE funding bodies should take into account when developing the OA policy for the REF-after-REF 2021?

Response	Frequency (n)	Proportion (%)
Yes	117	38%
No	86	28%
Don't know	35	12%
No opinion	67	22%

Base: 305

Copyright and Rights Retention

Q12. Which statement best reflects your views on whether UKRI's OA policy should require copyright and/or rights retention for in-scope research articles?

Response	Frequency (n)	Proportion (%)
UKRI should require an author or their institution to retain copyright and not exclusively transfer this to a publisher	74	24%
UKRI should require an author or their institution to retain specific reuse rights, including rights to deposit the author's accepted manuscript in a repository in line with the deposit and licensing requirements of UKRI's OA policy	30	10%
UKRI should require an author or their institution to retain copyright AND specific reuse rights, including rights to deposit the author's accepted manuscript in a repository in line with the deposit and licensing requirements of UKRI's OA policy	105	33%
UKRI should not have a requirement for copyright or rights retention	68	22%
Don't know	20	6%
No opinion	18	6%

Technical Standards Requirements

Q13. Regarding research articles in-scope of UKRI's OA policy, to what extent do you agree or disagree with each of the seven proposed technical standard requirements for journals and OA publishing platforms?

a. persistent digital object identifiers (PIDs) for research outputs must be implemented according to international standards such as DOI, URN or Handle

Response	Frequency (n)	Proportion (%)
Strongly disagree	4	1%
Disagree	3	1%
Neither agree nor disagree	4	1%
Agree	109	36%
Strongly agree	149	49%
Don't know	6	2%
No opinion	29	10%

Base: 304

b. article-level metadata must be used according to a defined application profile that supports UKRI's proposed OA policy and is available via a CC0 public domain dedication; the metadata standard must adhere to international best practice such as the Crossref schema and OpenAIRE guidelines

Response	Frequency (n)	Proportion (%)
Strongly disagree	5	2%
Disagree	20	7%
Neither agree nor disagree	21	7%
Agree	120	40%
Strongly agree	92	31%
Don't know	9	3%
No opinion	35	12%

Base: 302

c. machine-readable information on the OA status and the licence must be embedded in the article in a standard non-proprietary format

Response	Frequency (n)	Proportion (%)
Strongly disagree	3	1%
Disagree	10	3%
Neither agree nor disagree	21	7%
Agree	124	42%
Strongly agree	92	31%
Don't know	11	4%
No opinion	38	13%

Base: 299

d. long-term preservation must be supported via a robust preservation programme such as CLOCKSS , Portico or an equivalent

Response	Frequency (n)	Proportion (%)
Strongly disagree	3	1%
Disagree	8	3%
Neither agree nor disagree	19	6%
Agree	125	42%
Strongly agree	97	33%
Don't know	9	3%
No opinion	36	12%

Base: 297

e. openly accessible data on citations must be made available according to the standards set out by the Initiative for Open Citations (I4OC)

Response	Frequency (n)	Proportion (%)
Strongly disagree	4	1%
Disagree	17	6%
Neither agree nor disagree	27	9%
Agree	130	44%
Strongly agree	66	22%
Don't know	10	3%
No opinion	42	14%

Base: 296

f. self-archiving policies must be registered in the SHERPA RoMEO database that underpins SHERPA/FACT

Response	Frequency (n)	Proportion (%)
Strongly disagree	5	2%
Disagree	11	4%
Neither agree nor disagree	24	8%
Agree	103	35%
Strongly agree	97	33%
Don't know	12	4%
No opinion	45	15%

Base: 297

g. unique PIDs for research management information must be used and must include the use of ORCID to identify all authors and contributors

Response	Frequency (n)	Proportion (%)
Strongly disagree	5	2%
Disagree	16	5%
Neither agree nor disagree	27	9%
Agree	127	43%
Strongly agree	74	25%
Don't know	8	3%
No opinion	39	13%

Base: 296

Q14. Regarding research articles in-scope of UKRI's OA policy, to what extent do you agree or disagree with each of the five proposed technical standard requirements for institutional and subject repositories?

a. PIDs for research outputs must be implemented according to international standards such as DOI, URN or Handle

Response	Frequency (n)	Proportion (%)
Strongly disagree	3	1%
Disagree	9	3%
Neither agree nor disagree	14	5%
Agree	104	35%
Strongly agree	88	30%
Don't know	15	5%
No opinion	64	22%

Base: 297

b. article-level metadata must be implemented according to a defined application profile that supports the proposed UKRI OA policy and is available via a CC0 public domain dedication; this should include the persistent identifier to both the author's accepted manuscript and the version of record; the metadata standard must adhere to international best practice such as the OpenAIRE guidelines

Response	Frequency (n)	Proportion (%)
Strongly disagree	4	1%
Disagree	4	1%
Neither agree nor disagree	21	7%
Agree	122	42%
Strongly agree	60	20%
Don't know	16	5%
No opinion	67	23%

Base: 294

c. machine-readable information on the OA status and the licence must be embedded in the article in a standard non-proprietary format

Response	Frequency (n)	Proportion (%)
Strongly disagree	3	1%
Disagree	17	6%
Neither agree nor disagree	24	8%
Agree	108	37%
Strongly agree	56	19%
Don't know	19	6%
No opinion	69	23%

Base: 296

d. unique PIDs for research management information must be used and must include the use of ORCID to identify all authors and contributors

Response	Frequency (n)	Proportion (%)
Strongly disagree	4	1%
Disagree	17	6%
Neither agree nor disagree	26	9%
Agree	108	37%
Strongly agree	58	20%
Don't know	15	5%
No opinion	66	22%

Base: 294

e. the repository must be registered in the Directory of Open Access Repositories (OpenDOAR).

Response	Frequency (n)	Proportion (%)
Strongly disagree	4	1%
Disagree	5	2%
Neither agree nor disagree	23	8%
Agree	104	36%
Strongly agree	79	27%
Don't know	10	3%
No opinion	67	23%

Base: 292

Q15. To support the adoption of technical standards for OA, are there other standards, actions and/or issues UKRI should consider?

Response	Frequency (n)	Proportion (%)
Yes	131	44%
No	20	7%
Don't know	70	23%
No opinion	79	26%

Base: 300

Q16. To support the implementation of UKRI's proposed OA policy requirement for research articles to include an access statement for underlying research materials (see paragraph 69 of the consultation document), are there any technical standards or best practices that UKRI should consider requiring?

Response	Frequency (n)	Proportion (%)
Yes	113	38%
No	10	3%
Don't know	84	28%
No opinion	93	31%

Base: 300

Timing of Implementation

Q17. UKRI's OA policy is proposed to apply to in-scope research articles accepted for publication on or after 1 January 2022. Which statement best reflects your views?

Response	Frequency (n)	Proportion (%)
The policy should apply from 1 January 2022	128	41%
The policy should apply earlier than 1 January 2022	28	9%
The policy should apply later than 1 January 2022	123	39%
Don't know	14	4%
No opinion	22	7%

Base: 315

Q18. For research articles, are there any considerations that UKRI and UK HE funding bodies need to take into account regarding the interplay between the implementation dates for UKRI's OA policy and the OA policy for the REF-after-REF 2021?

Response	Frequency (n)	Proportion (%)
Yes	155	52%
No	19	6%
Don't know	46	15%
No opinion	80	27%

Base: 300

Supporting Actions: Public Value, Costs and Funding

Q19. Do you think the proposals outlined in Section A will have any financial cost implications for you or your organisation?

Response	Frequency (n)	Proportion (%)
Yes	242	78%
No	27	9%
Don't know	28	9%
No opinion	15	5%

Base: 312

Q20. Do you think the proposals outlined in Section A will result in financial benefits for you or your organisation?

Response	Frequency (n)	Proportion (%)
Yes	35	11%
No	183	60%
Don't know	68	22%
No opinion	20	7%

Base: 306

Q21. Can you provide any evidence of a changing balance of costs across research organisations arising from an emphasis on publishing costs rather than read costs?

Response	Frequency (n)	Proportion (%)
Yes	107	36%
No	93	32%
Don't know	47	16%
No opinion	48	16%

Base: 295

Q22. Can you provide any evidence on cost increases and/or price rises (including in relation to OA article processing charges (APCs) and subscriptions) and reasons for these?

Response	Frequency (n)	Proportion (%)
Yes	128	43%
No	80	27%
Don't know	45	15%
No opinion	43	15%

Base: 296

Q23. Do you think there are steps publishers and/or other stakeholders could take to improve the transparency of publication charges?

Response	Frequency (n)	Proportion (%)
Yes	228	75%
No	9	3%
Don't know	38	13%
No opinion	28	9%

Base: 302

Q24. Regarding UKRI's consideration about restricting the use of its OA funds for publication in hybrid journals (see paragraph 80 of the consultation document), please select the statement that best reflects your views:

Response	Frequency (n)	Proportion (%)
UKRI OA funds should not be permitted to support OA publication in hybrid journals	38	12%
UKRI OA funds should only be permitted to support OA publication in hybrid journals where they are party to a transformative agreement or similar arrangement	103	32%
UKRI OA funds should be permitted to support OA publication in hybrid journals	139	44%
None of the above	12	4%
Don't know	11	4%
No opinion	15	5%

Base: 318

Q25. To what extent do you agree or disagree that UKRI OA funds should be permitted to support OA costs that support institutional repositories?

Response	Frequency (n)	Proportion (%)
Strongly disagree	11	4%
Disagree	31	10%
Neither agree nor disagree	44	14%
Agree	80	26%
Strongly agree	85	28%
Don't know	15	5%
No opinion	40	13%

Base: 306

Q26. To help accelerate policy adoption, should UKRI introduce any other restrictions on how UKRI OA funds can be used?

Response	Frequency (n)	Proportion (%)
Yes	55	18%
No	117	39%
Don't know	56	19%
No opinion	73	24%

Base: 301

Q27. There are many business models that can support OA. A common model for journals is based on APCs, but there are also other models (such as membership models and subscribe to open). Are there changes or alternatives to the present UKRI funding mechanisms that might help support a diversity of OA models?

Response	Frequency (n)	Proportion (%)
Yes	146	48%
No	27	9%
Don't know	66	22%
No opinion	64	21%

Base: 303

Q28. As discussed in paragraph 74 of the consultation document, transformative agreements are one way of moving to OA in a more cost-effective way. Are there approaches to managing transformative agreements or other mechanisms and developments that UKRI should consider to help manage the transition to OA in a way that is cost-effective and offers public value to the UK?

Response	Frequency (n)	Proportion (%)
Yes	158	53%
No	7	2%
Don't know	70	24%
No opinion	62	21%

Base: 297

Supporting Actions: OA Infrastructure

Q29. Are there any existing or new infrastructure services that you think UKRI should fund the maintenance and/or development of, to support the implementation of its OA policy for research articles?

Response	Frequency (n)	Proportion (%)
Yes	165	55%
No	15	5%
Don't know	56	19%
No opinion	65	21%

Base: 301

Q30. To what extent do you agree or disagree that UKRI should provide or support a national shared repository?

Response	Frequency (n)	Proportion (%)
Strongly disagree	24	8%
Disagree	45	15%
Neither agree nor disagree	70	23%
Agree	73	24%
Strongly agree	53	17%
Don't know	9	3%
No opinion	32	11%

Base: 306

Supporting Actions: Preprints

Q31. Should UKRI require preprints to be made OA where there is a significant benefit with regard to public emergencies?

Response	Frequency (n)	Proportion (%)
Yes	184	60%
No	36	12%
Don't know	39	13%
No opinion	48	16%

Base: 307

Q32. Are there any supporting actions that UKRI could take alongside its OA policy to support the use of preprints in all disciplines?

Response	Frequency (n)	Proportion (%)
Yes	116	39%
No	30	10%
Don't know	70	24%
No opinion	80	27%

Base: 296

Section B: Monographs, Book Chapters and Edited Collections

In-Scope Outputs

Q33. To what extent do you agree or disagree that the types of monograph, book chapter and edited collection defined as in-scope and out-of-scope of UKRI's proposed OA policy (see paragraphs 96-98 of the consultation document) are clear?

Response	Frequency (n)	Proportion (%)
Strongly disagree	7	3%
Disagree	80	34%
Neither agree nor disagree	17	7%
Agree	90	38%
Strongly agree	34	14%
Don't know	1	0%
No opinion	6	3%

Base: 235

Q34. Should the following outputs be in-scope of UKRI's OA policy when based on UKRI-funded doctoral research?

a. Academic monographs

Response	Frequency (n)	Proportion (%)
Yes	125	53%
No	66	28%
Don't know	25	11%
No opinion	18	8%

Base: 234

b. Book chapters

Response	Frequency (n)	Proportion (%)
Yes	132	56%
No	69	29%
Don't know	22	9%
No opinion	13	6%

Base: 236

c. Edited collections

Response	Frequency (n)	Proportion (%)
Yes	119	51%
No	73	31%
Don't know	29	12%
No opinion	13	6%

Base: 234

Q35. To what extent do you agree or disagree that UKRI's OA policy should include an exception for in-scope monographs, book chapters and edited collections where the only suitable publisher in the field does not have an OA programme?

Response	Frequency (n)	Proportion (%)
Strongly disagree	12	5%
Disagree	31	13%
Neither agree nor disagree	22	9%
Agree	87	37%
Strongly agree	65	27%
Don't know	11	5%
No opinion	10	4%

Base: 238

Q36. Are there any other considerations that the UK HE funding bodies should take into account when defining academic monographs, book chapters and edited collections in-scope of the OA policy for the REF-after-REF 2021?

Response	Frequency (n)	Proportion (%)
Yes	110	49%
No	33	15%
Don't know	24	11%
No opinion	56	25%

Base: 223

OA Routes and Deposit Requirements

Q37. Regarding monographs in-scope of UKRI's proposed OA policy, which statement best reflects your view on the maximum embargo requirement of 12 months?

Response	Frequency (n)	Proportion (%)
12 months is appropriate	73	31%
A longer embargo period should be allowed	74	32%
A shorter embargo period should be required	16	7%
Different maximum embargo periods should be required for different discipline areas	40	17%
Don't know	13	6%
No opinion	19	8%

Base: 235

Q38. Regarding book chapters in-scope of UKRI's proposed OA policy, which statement best reflects your view on the maximum embargo requirement of 12 months?

Response	Frequency (n)	Proportion (%)
12 months is appropriate	79	34%
A longer embargo period should be allowed	60	26%
A shorter embargo period should be required	19	8%
Different maximum embargo periods should be required for different discipline areas	50	22%
Don't know	11	5%
No opinion	13	6%

Base: 232

Q39. Regarding edited collections in-scope of UKRI's proposed OA policy, which statement best reflects your view on the maximum embargo requirement of 12 months?

Response	Frequency (n)	Proportion (%)
12 months is appropriate	75	32%
A longer embargo period should be allowed	72	31%
A shorter embargo period should be required	16	7%
Different maximum embargo periods should be required for different discipline areas	37	16%
Don't know	17	7%
No opinion	14	6%

Base: 231

Q40. Do you have any specific views and/or evidence regarding different funding implications of publishing monographs, book chapters or edited collections with no embargo, a 12-month embargo or any longer embargo period?

Response	Frequency (n)	Proportion (%)
Yes	95	44%
No	96	44%
Don't know	10	5%
No opinion	16	7%

Base: 217

Q41. To what extent do you agree that self-archiving the post-peer-review author's accepted manuscript should meet the policy requirement?

Response	Frequency (n)	Proportion (%)
Strongly disagree	7	3%
Disagree	32	14%
Neither agree nor disagree	23	10%
Agree	69	30%
Strongly agree	77	33%
Don't know	8	3%
No opinion	17	7%

Base: 233

Q42. Regarding monographs, book chapters and edited collections, are there any additional considerations relating to OA routes, deposit requirements and delayed OA that the UK HE funding bodies should take into account when developing the OA policy for the REF-after-REF 2021?

Response	Frequency (n)	Proportion (%)
Yes	109	49%
No	21	10%
Don't know	27	12%
No opinion	64	29%

Base: 221

Licensing Requirements and Third-Party Rights

Q43. To what extent do you agree or disagree with CC BY-ND being the minimum licencing requirement for monographs, book chapters and edited collections in-scope of UKRI's proposed OA policy?

Response	Frequency (n)	Proportion (%)
Strongly disagree	8	3%
Disagree	54	23%
Neither agree nor disagree	29	12%
Agree	84	36%
Strongly agree	40	17%
Don't know	8	3%
No opinion	13	6%

Base: 236

Q44. To what extent do you agree or disagree that UKRI's OA policy should include an exception for in-scope monographs, book chapters and edited collections requiring significant reuse of third-party materials?

Response	Frequency (n)	Proportion (%)
Strongly disagree	10	4%
Disagree	11	5%
Neither agree nor disagree	17	7%
Agree	101	43%
Strongly agree	63	27%
Don't know	3	1%
No opinion	28	12%

Base: 233

Q45. To what extent do you agree or disagree that if an image (or other material) were not available for reuse and no other image were suitable, it would be appropriate to redact the image (or material), with a short description and a link to the original?

Response	Frequency (n)	Proportion (%)
Strongly disagree	37	16%
Disagree	42	18%
Neither agree nor disagree	28	12%
Agree	77	33%
Strongly agree	15	6%
Don't know	12	5%
No opinion	22	9%

Base: 233

Q46. Do you have a view on how UKRI should define 'significant use of third-party materials' if it includes a relevant exception in its policy?

Response	Frequency (n)	Proportion (%)
Yes	102	46%
No	47	21%
Don't know	20	9%
No opinion	55	25%

Base: 224

Q47. Do you have any other comments relating to licensing requirements and/or the use of third-party materials, in relation to UKRI's proposed OA policy for academic monographs, book chapters and edited collections?

Response	Frequency (n)	Proportion (%)
Yes	67	30%
No	156	70%

Base: 223

Q48. Regarding monographs, book chapters and edited collections, are there any additional considerations relating to licensing requirements and/or third-party materials that you think that the UK HE funding bodies should take into account when developing the OA policy for the REF-after-REF 2021?

Response	Frequency (n)	Proportion (%)
Yes	92	41%
No	45	20%
Don't know	28	13%
No opinion	58	26%

Base: 223

Copyright and Rights Retention

Q49. Which statement best reflects your views on whether UKRI's OA policy should require copyright and/or rights retention for in-scope monographs, book chapters and edited collections?

Response	Frequency (n)	Proportion (%)
UKRI should require an author or their institution to retain copyright and not exclusively transfer this to a publisher	43	19%
UKRI should require an author or their institution to retain specific reuse rights, including rights to deposit the author's accepted manuscript in a repository in line with the deposit and licensing requirements of UKRI's OA policy	23	10%
UKRI should require an author or their institution to retain copyright AND specific reuse rights, including rights to deposit the author's accepted manuscript in a repository in line with the deposit and licensing requirements of UKRI's OA policy	89	38%
UKRI's OA policy should not have a requirement for copyright or rights retention	50	22%
Don't know	12	5%
No opinion	16	7%

Base: 233

Timing of Implementation

Q50. Regarding the timing of implementation of UKRI's OA policy for monographs, book chapters and edited collections, which statement best reflects your view?

Response	Frequency (n)	Proportion (%)
The policy should apply from 1 January 2024	109	47%
The policy should apply earlier than 1 January 2024	16	7%
The policy should apply later than 1 January 2024	70	30%
Don't know	15	6%
No opinion	24	10%

Base: 234

Q51. Do you have any suggestions regarding the type of advice and guidance that that might be helpful?

Response	Frequency (n)	Proportion (%)
Yes	131	59%
No	91	41%

Base: 222

Q52. Regarding monographs, book chapters and edited collections, are there any other considerations that UKRI and the UK HE funding bodies need to take into account when considering the interplay between the implementation dates for the UKRI OA policy and the OA policy for the REF-after-REF 2021 OA?

Response	Frequency (n)	Proportion (%)
Yes	109	50%
No	20	9%
Don't know	26	12%
No opinion	63	29%

Base: 218

Supporting Actions: Funding

Q53. Do you have any views regarding funding levels, mechanisms and eligible costs to inform UKRI's considerations about the provision of funding for OA monographs, book chapters and edited collections in-scope of its proposed policy?

Response	Frequency (n)	Proportion (%)
Yes	159	70%
No	45	20%
Don't know	4	2%
No opinion	20	9%

Base: 228

Supporting Actions: OA Infrastructure and Technical Standards

Q54. To support the implementation of UKRI's OA policy, are there any actions (including funding) that you think UKRI and/or other stakeholders should take to maintain and/or develop existing or new infrastructure services for OA monographs, book chapters and edited collections?

Response	Frequency (n)	Proportion (%)
Yes	141	63%
No	7	3%
Don't know	26	12%
No opinion	51	23%

Base: 225

Q55. Are there any technical standards that UKRI should consider requiring and/or encouraging in its OA policy to facilitate access, discoverability and reuse of OA monographs, book chapters and edited collections?

Response	Frequency (n)	Proportion (%)
Yes	85	39%
No	10	5%
Don't know	48	22%
No opinion	75	34%

Base: 218

Q56. Do you have any other suggestions regarding UKRI's proposed OA policy and/or supporting actions to facilitate access, discoverability and reuse of OA monographs, book chapters and edited collections?

Response	Frequency (n)	Proportion (%)
Yes	50	23%
No	80	37%
Don't know	18	8%
No opinion	71	32%

Base: 219

Section C: Monitoring Compliance

Monitoring Compliance

Q57. Could the manual reporting process currently used for UKRI OA block grants be improved?

Response	Frequency (n)	Proportion (%)
Yes	103	45%
No	6	3%
Don't know	61	27%
No opinion	59	26%

Base: 229

Q58. Except for those relating to OA block grant funding assurance, UKRI has in practice not yet applied sanctions for non-compliance with the RCUK Policy on Open Access. Should UKRI apply further sanctions and/or other measures to address non-compliance with its proposed OA policy?

Response	Frequency (n)	Proportion (%)
Yes	90	40%
No	68	30%
Don't know	30	13%
No opinion	38	17%

Base: 226

Q59. To what extent do you agree or disagree with the example proposed measures to address non-compliance with the proposed UKRI OA policy (see paragraph 119 of the consultation document)?

Response	Frequency (n)	Proportion (%)
Strongly disagree	24	10%
Disagree	38	17%
Neither agree nor disagree	26	11%
Agree	86	37%
Strongly agree	10	4%
Don't know	6	3%
No opinion	41	18%

Base: 231

Section D: Policy Implications and Supporting Actions

Q60. Do you foresee any benefits for you, your organisation or your community arising from UKRI's proposed OA policy?

Response	Frequency (n)	Proportion (%)
Yes	203	72%
No	43	15%
Don't know	25	9%
No opinion	10	4%

Base: 281

Q61. Do you foresee UKRI's proposed OA policy causing and/or contributing to any disadvantages or inequalities?

Response	Frequency (n)	Proportion (%)
Yes	236	82%
No	18	6%
Don't know	23	8%
No opinion	10	4%

Base: 287

Q62. Do you foresee any positive and/or negative implications of UKRI's proposed OA policy for the research and innovation and scholarly communication sectors in low-and-middle-income countries?

Response	Frequency (n)	Proportion (%)
Yes	205	74%
No	8	3%
Don't know	35	13%
No opinion	31	11%

Base: 279

Q63. Do you anticipate any barriers or challenges (not identified in previous answers) to you, your organisation or your community practising and/or supporting OA in line with UKRI's proposed policy?

Response	Frequency (n)	Proportion (%)
Yes	122	44%
No	92	33%
Don't know	32	12%
No opinion	30	11%

Base: 276

Q64. Are there any other supporting actions (not identified in previous answers) that you think UKRI could undertake to incentivise OA?

Response	Frequency (n)	Proportion (%)
Yes	127	48%
No	50	19%
Don't know	42	16%
No opinion	47	18%

Base: 266

Q65. Do you foresee any other implications (not identified in previous answers) for you, your organisation or your community arising from UKRI's proposed OA policy?

Response	Frequency (n)	Proportion (%)
Yes	61	23%
No	113	42%
Don't know	53	20%
No opinion	42	16%

Base: 269

Appendix 3: Logistic regression models

Regression method

Logistic regression (Logit) is a predictive method of analysis. It compares binary options for a dependent variable against one or more nominal, ordinal, interval or ratio-level independent variables. In this case, the analysis considers consultation responses depending on the type of consultee. The purpose of the regression is to identify, and account for, differences in response between a specific group of consultees and all others.

This was achieved by creating four binary variables to identify consultee types based on recoded answers to question VIII¹⁵⁸:

1. Model A: Researchers =1; All other consultees = 0
2. Model B: Publishers =1; All other consultees = 0
3. Model C: Learned societies =1; All other consultees = 0
4. Model D: HEIs =1; All other consultees = 0

The groupings were based on consultee types with enough observations to warrant analysis.

The logistic regressions for each compare responses to the consultation. A model for each group was created for Section A on articles. A second model was created for Section B on Monographs, Book Chapters and Edited Collections. Independent variables in each Section were subjectively chosen for each model based on whether they may sensibly relate to the dependent variable.

The main differences for input independent variables were in section A because some variables of interest were subject to collinearity, meaning only one correlated variable should be used in a model. For example, there was a strong relationship between responses to Q7¹⁵⁹, Q17¹⁶⁰ and Q24¹⁶¹ (see Tables 10 and 11 which shows some of the key relationships between tested variables). Subjective choices were made as to which of these three would be used in a given model. For example, it was decided that Q7 (compliance with repository requirements) was more relevant to Researchers whereas Q24 (restrictions on hybrid journals) was more relevant to Publishers. The number of variables in models was also limited to minimise any effects from over-fitting, which reduces the value of the model for wider interpretation.

The key output of logistic regression modelling is a likelihood ratio (a chi-squared test), which compares the null model (i.e., a model with no predictors) with the estimated model (with predictors).

Two test statistics are used in interpretation: the odds ratio (Exp(B)) and the standard error for the log-odds from which Exp(B) is calculated.

- The odds ratio describes how much the dependent variable increases in relation to the independent variables.

¹⁵⁸ viii. What best describes the capacity in which you, your organisation or your group are responding?

¹⁵⁹ Q7. To what extent do you agree or disagree that where compliance with UKRI's OA policy is achieved via a repository, a CC BY licence (or Open Government Licence where needed) should be required for the deposited copy?

¹⁶⁰ Q17. UKRI's OA policy is proposed to apply to in-scope research articles accepted for publication on or after 1 January 2022. Which statement best reflects your views on this?

¹⁶¹ Q24. Regarding UKRI's consideration about restricting the use of its OA funds for publication in hybrid journals (see paragraph 80 of the consultation document), please select the statement that best reflects your views:

- Values above 1 indicated the variables move together, less than 1 means the independent variable decreases as the dependent variable increases.
- The extent to which this ratio is significant to the 95% confidence interval ($p < 0.05$) is indicated by an *.
- All tables are ranked by significance and the independent variables making a significant contribution to the model highlighted.

Correlation matrices

Correlations between the variables which may account for differences between categories of consultees were tested. Tables 10 and 11 show the Spearman's rank correlations between variables. The main purpose was to identify those variables which might display collinearity to refine the subsequent logit models.

A positive number between 0 and 1 represents a positive relationship (related variables increase in step with each other). A negative number between 0 and -1 represents an inverse relationship when one variable decreases as another increases. Stronger relationships ($+0.375$ or higher / -0.375 and lower) are highlighted in red text. Significance is indicated by either one or two asterisks where:

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

In the case of yes / no responses, variables marked with a tilde (~) compare a target response (either yes or no) versus all others (e.g. yes versus no AND no opinion AND don't know).

Yes / no questions without a tilde were tested with the no opinion and don't know options excluded. Similarly, testing on all agree / disagree options excluded don't know / no opinion responses.

Categorical responses assigned a value of 1 to a specific question item and a value of 0 to all other choices. For example, Q24 assigned a 1 to all consultees selecting option c "UKRI OA funds should be permitted to support OA publication in hybrid journals" and a 0 to all others answering the question.

Table 10: Correlations (Spearman) for selected question in Section A - Articles

	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q10	Q11	Q12	Q15	Q16	Q17	Q18	Q24	Q25	Q26	Q28	Q30
Q2~	1.000																		
Q3	-.193**	1.000																	
Q4	-.241**	0.066	1.000																
Q5	-0.052	.154*	0.052	1.000															
Q6	-.386**	0.048	.388**	0.013	1.000														
Q7	-0.117	-0.073	.284**	-.337**	.281**	1.000													
Q8	0.068	-0.028	-0.040	-0.066	-0.015	0.093	1.000												
Q10	-.277**	.174**	.232**	.154**	.302**	0.071	0.051	1.000											
Q11	-.397**	0.012	.295**	0.065	.521**	.227**	-0.049	.447**	1.000										
Q12	-0.052	-0.074	-0.046	0.073	0.075	-.134*	0.053	0.101	0.102	1.000									
Q15~	.245**	-.174**	-.132*	-.238**	-.223**	.119*	-0.011	-.334**	-.217**	-.180**	1.000								
Q16~	.264**	-0.093	-.121*	-0.077	-.253**	-0.025	-0.104	-.280**	-.250**	-0.071	.422**	1.000							
Q17	0.033	0.058	0.026	.312**	-0.050	-.443**	-0.042	.118*	0.050	.146*	-.150**	-0.079	1.000						
Q18~	.373**	-.140*	-.258**	-.127*	-.358**	-0.116	0.065	-.268**	-.396**	-0.056	.270**	.257**	-.140*	1.000					
Q24~	-0.007	0.090	0.031	.301**	-0.043	-.453**	0.037	.187**	0.031	.181**	-.165**	-0.020	.390**	-.119*	1.000				
Q25	0.036	-0.119	0.053	-.277**	0.118	.279**	0.065	-0.094	0.014	-0.098	.196**	-0.031	-.229**	-0.023	-.187**	1.000			
Q26~	0.056	-0.091	-.154**	0.096	-.123*	-.142*	-0.066	-0.089	-0.111	-0.044	0.049	0.054	.182**	0.011	0.069	-0.073	1.000		
Q28~	.170**	-.161*	-.231**	-0.085	-.303**	-0.023	0.086	-.307**	-.252**	-0.022	.349**	.312**	-0.094	.291**	-0.092	0.043	.173**	1.000	
Q30	0.068	-0.026	.138*	-.207**	0.118	.277**	.227**	0.008	0.025	-.150*	0.002	-.159*	-.225**	-0.063	-.233**	.372**	-.182**	-.128*	1.000
Q31~	-0.039	-0.084	0.079	-.184**	0.043	.259**	-0.030	-0.059	0.060	-.132*	.191**	0.055	-.262**	0.035	-.241**	0.117	-0.027	.231**	0.028

Table 11: Correlations (Spearman) for selected question in Section B – Long-form outputs

	Q33	Q34a	Q34b	Q34c	Q35	Q37	Q38	Q39	Q40	Q41	Q43	Q45	Q49	Q50	Q51	Q53	Q58	Q59
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Q33	1.000																		
Q34a	-.231**	1.000																	
Q34b	-.238**	.850**	1.000																
Q34c	-.176**	.820**	.875**	1.000															
Q35	-0.098	.340**	.319**	.354**	1.000														
Q37	-0.089	.353**	.261**	.249**	.153*	1.000													
Q38	-.145*	.331**	.292**	.252**	.154*	.791**	1.000												
Q39	-0.058	.319**	.282**	.312**	.151*	.860**	.854**	1.000											
Q40	.234**	0.071	0.112	0.071	-0.067	0.101	0.060	0.064	1.000										
Q41	0.097	-0.104	-.144*	-0.091	-.195**	-.220**	-.293**	-.247**	0.084	1.000									
Q43	.190**	-0.009	0.022	-0.020	0.068	-0.108	-0.090	-0.118	.174*	0.113	1.000								
Q45	.311**	-.234**	-.245**	-.231**	-.312**	-.179*	-.200**	-.171*	.149*	.301**	-0.072	1.000							
Q49	-.146*	.185**	.156*	.149*	0.080	.218**	.250**	.230**	0.089	-.268**	-0.124	-0.014	1.000						
Q50	-0.123	.254**	.248**	.206**	.249**	.316**	.267**	.256**	0.064	-.359**	-0.032	-.259**	.198**	1.000					
Q51	-0.051	.151*	.221**	.229**	.159*	0.106	.194**	0.124	.188**	-.155*	0.105	-0.124	0.110	.183**	1.000				
Q53	0.125	0.120	.141*	0.127	-0.010	.186**	.167*	.185**	.399**	-0.050	-0.119	.203**	.223**	.152*	.405**	1.000			
Q58	-0.039	0.116	.155*	.155*	.234**	0.131	.186*	0.135	0.080	-.378**	0.026	-.320**	.158*	.236**	.228**	.183*	1.000		
Q59	.167*	-.261**	-.235**	-.220**	-.270**	-0.125	-0.078	-0.038	0.120	.256**	.186*	.340**	-0.094	-0.036	-0.026	0.104	-.209**	1.000	
Q63	.197**	-0.061	-0.019	-0.045	-0.123	0.089	0.032	0.053	.201**	.169*	0.032	0.049	-0.046	0.020	0.076	0.056	-0.001	0.114	1.000

Regression tables - capacity in response was made¹⁶²

Section A model (articles)

Binary selection: 1 = Publisher; 0 = not a publisher.

Model Likelihood ratio chi-square test: 49.16, $p < 0.001$

Independent variable	Exp(B)	Standard Error
Q30. To what extent do you agree or disagree that UKRI should provide or support a national shared repository?	0.538*	0.264
Q24 View on hybrid journals(1) ^a	5.438*	0.786
Q5 binary for yes response(1)	0.236*	0.725
XII. If responding on behalf of an organisation, please indicate your staff headcount (if known).	1.758*	0.291
Q63 binary for yes response(1)	0.500	0.591
Q2 binary for yes response(1)	1.954	0.665
Q12 UKRIs OA policy copyright and reuse(1) ^b	0.438	0.830
Q9 binary for yes response(1)	1.636	0.601
Q11 binary for yes response(1)	0.663	0.619
Q3 binary for yes response(1)	0.661	0.822
Q8. To what extent do you agree or disagree that UKRIs OA policy should have a case-by-case exception allowing CC BY-ND for the version of record and/or authors accepted manuscript.	0.908	0.252

^a 1 = UKRI OA funds should be permitted to support OA publication in hybrid journals

^b 1 = UKRI should require authors or their institution to retain copyright AND specific reuse rights

¹⁶² VIII. What best describes the capacity in which you, your organisation or your group are responding?

Binary selection: 1 = Researcher; 0 = not a researcher.

Model Likelihood ratio chi-square test: 14.16, p=0.167

Independent variable	Exp(B)	Standard Error
Q12 UKRIs OA policy copyright and reuse(1) ^a	0.340*	0.552
Q9 binary for yes response(1)	0.366	0.629
Q3 binary for yes response(1)	2.376	0.572
Q30. To what extent do you agree or disagree that UKRI should provide or support a national shared repository?	1.271	0.215
Q7. To what extent do you agree or disagree that where compliance with UKRIs OA policy is achieved via a repository, a CC BY licence (or Open Government Licence where needed) should be required for the deposited copy?	1.214	0.209
Q11 binary for yes response(1)	0.646	0.577
Q5 binary for yes response(1)	1.415	0.533
Q63 binary for yes response(1)	1.327	0.515
Q2 binary for yes response(1)	0.738	0.574
Q8. To what extent do you agree or disagree that UKRIs OA policy should have a case-by-case exception allowing CC BY-ND for the version of record and/or authors accepted manuscript.	0.980	0.207

^a 1 = UKRI should require authors or their institution to retain copyright AND specific reuse rights

Binary selection: 1 = Learned society or academy with an in-house publishing arm OR Learned society or academy which outsource publishing arm to a third party OR Learned society or academy which does not publish; 0 = not a Learned Society or academy.

Model Likelihood ratio chi-square test: 86.26, $p < 0.001$

Independent variable	Exp(B)	Standard Error
Q2 binary for yes response(1)	0.109*	0.646
Q5 binary for yes response(1)	0.099*	0.733
Q24 View on hybrid journals(1) ^a	5.635*	0.683
Q3 binary for yes response(1)	0.085*	1.173
Q12 UKRIs OA policy copyright and reuse(1) ^b	0.375	0.791
Q6 binary for yes response(1)	1.659	0.649
Q8. To what extent do you agree or disagree that UKRIs OA policy should have a case-by-case exception allowing CC BY-ND for the version of record and/or authors accepted manuscript.	0.878	0.232
Q9 binary for yes response(1)	1.247	0.563
Q30. To what extent do you agree or disagree that UKRI should provide or support a national shared repository?	0.942	0.223
Q63 binary for yes response(1)	1.115	0.542

^a 1 = UKRI OA funds should be permitted to support OA publication in hybrid journals

^b 1 = UKRI should require authors or their institution to retain copyright AND specific reuse rights

Binary selection: 1 = HEI; 0 = not a HEI.

Model Likelihood ratio chi-square test: 49.16, $p < 0.001$

Independent variable	Exp(B)	Standard Error
Q12 UKRIs OA policy copyright and reuse(1) ^a	5.253*	0.525
XII. If responding on behalf of an organisation, please indicate your staff headcount (if known).	7.383*	0.645
Q8. To what extent do you agree or disagree that UKRIs OA policy should have a case-by-case exception allowing CC BY-ND for the version of record and/or authors accepted manuscript.	1.842*	0.238
Q2 binary for yes response(1)	3.174*	0.601
Q30. To what extent do you agree or disagree that UKRI should provide or support a national shared repository?	1.260	0.211
Q5 binary for yes response(1)	1.766	0.525
Q17 Policy period begins(1) ^b	1.729	0.521
Q9 binary for yes response(1)	1.594	0.594
Q6 binary for yes response(1)	1.566	0.580
Q3 binary for yes response(1)	1.221	0.615
Q63 binary for yes response(1)	0.857	0.534

^a 1 = UKRI should require authors or their institution to retain copyright AND specific reuse rights

^b 1 = The policy should apply from 1 January 2022

Section B models (long-form outputs)

Binary selection: 1 = Publisher; 0 = not a publisher.

Model Likelihood ratio chi-square test: 47.27, $p < 0.001$

Independent variable	Exp(B)	Standard Error
Q33. To what extent do you agree or disagree that the types of monograph, book chapter and edited collection defined as in-scope and out-of-scope of UKRIs proposed OA policy (see paragraphs 96-98 of the consultation document) are clear?	0.151*	0.674
Q43. To what extent do you agree or disagree with CC BY-ND being the minimum licencing requirement for monographs, book chapters and edited collections in-scope of UKRIs proposed OA policy?	0.269*	0.515
Q41. To what extent do you agree that self-archiving the post-peer-review author's accepted manuscript should meet the policy requirement?	0.1748	0.691
Q34_2 binary for yes response(1)	13.512	1.373
XII. If responding on behalf of an organisation, please indicate your staff headcount (if known).	0.392	0.501
Q63 binary for yes response(1)	0.102	1.563
Q35. To what extent do you agree or disagree that UKRIs OA policy should include an exception for in-scope monographs, book chapters and edited collections where the only suitable publisher in the field does not have an OA programme?	2.261	0.615
Q58 binary for yes response(1)	0.659	1.417

Binary selection: 1 = Researcher; 0 = not a researcher.

Model Likelihood ratio chi-square test: 7.91, $p < 0.442$

Independent variable	Exp(B)	Standard Error
Q43. To what extent do you agree or disagree with CC BY-ND being the minimum licencing requirement for monographs, book chapters and edited collections in-scope of UKRIs proposed OA policy?	0.516	0.388
Q34_2 binary for yes response(1)	0.257	1.029
Q33. To what extent do you agree or disagree that the types of monograph, book chapter and edited collection defined as in-scope and out-of-scope of UKRIs proposed OA policy (see paragraphs 96-98 of the consultation document) are clear?	1.509	0.417
Q58 binary for yes response(1)	0.442	0.996
Q35. To what extent do you agree or disagree that UKRIs OA policy should include an exception for in-scope monographs, book chapters and edited collections where the only suitable publisher in the field does not have an OA programme?	0.735	0.411
Q53 binary for yes response(1)	0.544	0.907
Q41. To what extent do you agree that self-archiving the post-peer-review author's accepted manuscript should meet the policy requirement?	1.245	0.416
Q63 binary for yes response(1)	1.277	0.897

Binary selection: 1 = Learned society or academy with an in-house publishing arm OR Learned society or academy which outsource publishing arm to a third party OR Learned society or academy which does not publish; 0 = not a Learned Society or academy.

Model Likelihood ratio chi-square test: 48.58, $p < 0.001$

Independent variable	Exp(B)	Standard Error
Q43. To what extent do you agree or disagree with CC BY-ND being the minimum licencing requirement for monographs, book chapters and edited collections in-scope of UKRIs proposed OA policy?	8.809*	0.682
Q41. To what extent do you agree that self-archiving the post-peer-review author's accepted manuscript should meet the policy requirement?	0.316*	0.425
Q58 binary for yes response(1)	0.075	1.436
Q37 Maximum embargo requirement(1) ^a	0.103	1.561
Q53 binary for yes response(1)	0.214	1.177
Q63 binary for yes response(1)	0.363	1.010
Q33. To what extent do you agree or disagree that the types of monograph, book chapter and edited collection defined as in-scope and out-of-scope of UKRIs proposed OA policy (see paragraphs 96-98 of the consultation document) are clear?	0.751	0.412
Q34_2 binary for yes response(1)	0.870	0.958
Q35. To what extent do you agree or disagree that UKRIs OA policy should include an exception for in-scope monographs, book chapters and edited collections where the only suitable publisher in the field does not have an OA programme?	0.980	0.427

^a 1 = 12 months is appropriate

Binary selection: 1 = HEI; 0 = not a HEI.

Model Likelihood ratio chi-square test: 22.65, p=0.007

Independent variable	Exp(B)	Standard Error
Q41. To what extent do you agree that self-archiving the post-peer-review author's accepted manuscript should meet the policy requirement?	1.656*	0.194
Q58 binary for yes response(1)	2.377*	0.429
Q35. To what extent do you agree or disagree that UKRIs OA policy should include an exception for in-scope monographs, book chapters and edited collections where the only suitable publisher in the field does not have an OA programme?	1.387	0.184
Q53 binary for yes response(1)	2.234	0.501
Q63 binary for yes response(1)	1.462	0.417
Q33. To what extent do you agree or disagree that the types of monograph, book chapter and edited collection defined as in-scope and out-of-scope of UKRIs proposed OA policy (see paragraphs 96-98 of the consultation document) are clear?	1.153	0.177
Q37 Maximum embargo requirement(1) ^a	0.753	0.418
Q43. To what extent do you agree or disagree with CC BY-ND being the minimum licencing requirement for monographs, book chapters and edited collections in-scope of UKRIs proposed OA policy?	1.039	0.173

^a 1 = 12 months is appropriate