

SHERPA/REF Stakeholder Consultation

Results of a consultation on the development of a new service to help authors and institutions achieve compliance with the open access policy for the post-2014 Research Excellence Framework (Public Version)

April 2015

Prepared by Research Consulting on behalf of the Centre for Research Communications and HEFCE



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

Contents

1.	Executive Summary	4
1.1.	Background.....	4
1.2.	Methodology	4
1.3.	Findings.....	4
2.	Introduction.....	6
2.1.	Background.....	6
2.2.	Terms of Reference	6
2.3.	Methodology	7
2.4.	Report structure	8
2.5.	Acknowledgements	8
3.	Role and value of the SHERPA/REF service	9
3.1.	Role of the SHERPA/REF service	9
3.2.	Estimating the value of the SHERPA/REF service	10
3.3.	Perception of responsibilities for ensuring that publications comply with REF open access policies	12
4.	Author requirements.....	13
4.1.	Authors' approach to OA publication.....	13
4.2.	Authors' preferences regarding the provision of information in SHERPA/REF.....	15
4.3.	Institutional policies	16
5.	Support staff requirements	17
5.1.	Expected use of SHERPA/REF	18
5.2.	Information provided by SHERPA/REF	19
5.3.	Integration of SHERPA/REF with existing services	20
5.4.	Provision of an API.....	21
5.5.	Tracking, monitoring and assessing compliance	21
5.6.	User accounts	23
6.	Wider benefits of the service	25
7.	Conclusions and recommendations	26
	Appendix 1 – Interviewees.....	27
	Appendix 2 – Online survey question set (Authors)	28
	Appendix 3 – Online survey question set (Institutional Support Staff)	33
	Appendix 4 – List of participating institutions	38

1. Executive Summary

1.1. Background

The Higher Education Funding Council for England (HEFCE) has commissioned the Centre for Research Communications (CRC) at the University of Nottingham to develop a new service to support authors and institutions in meeting the new open access (OA) requirements of the post-2014 Research Excellence Framework (REF). The new service, called SHERPA/REF, will build on the current portfolio of SHERPA services and it will help authors and institutions ascertain whether a journal allows them to comply with the REF policy, and what to do when it does and when it does not. As part of the project, the CRC commissioned Research Consulting to carry out a consultation to identify stakeholder requirements and inform specifications for the proposed SHERPA/REF service.

1.2. Methodology

Stakeholder views and requirements for the development of SHERPA/REF were gathered through semi-structured interviews and online surveys. Both consultation methods were based on similar sets of questions. The quantitative analysis presented in this report is based on the results of the online surveys, while the narrative observations reflect the survey results and the more detailed information obtained from the interviews.

Fourteen phone interviews were carried out with individuals representing several stakeholder groups with an interest in the SHERPA/REF service. The total number of responses for the two surveys was 610, of which 243 came from authors and 377 from support staff; however, typical response rates for individual questions from authors were between 153 and 169, while for support staff the number of responses to individual questions ranged from 194 to 264. Responses represented the view of 112 institutions, of which 106 were UK-based and 6 overseas.

1.3. Findings

The consultation found that there is a strong demand for the SHERPA/REF service from authors and institutional support staff, and that both groups are very likely to use the tool. Respondents indicated that SHERPA/REF could save authors 30-60 minutes of time per article, which, taking the lower estimate, could result in a total saving for the sector of over £2m per annum. For this level of saving to be realised there would need to be a clear endorsement of the service from HEFCE, confirming that it is sufficient for authors and institutions to use SHERPA/REF to determine compliance, without the need to refer to the original publisher policy.

Stakeholders indicated that it is essential that SHERPA/REF be simple to use, provide accurate and up to date information, and guide users on what to do in cases of non-compliance or uncertain compliance. Respondents also felt strongly that the tool should be integrated with other SHERPA

services, particularly SHERPA/FACT, and provide all the information necessary to achieve compliance in one place.

Respondents commented on a number of optional features, amongst which the ability to keep a record of search results as evidence of compliance with the REF policy attracted most support. Stakeholders also broadly endorsed options to track a journal's historic compliance, and monitor changes to journal OA policies and embargo periods, while individual and institutional user accounts are seen as potentially useful but optional functionalities.

Several respondents noted the technical challenges and costs associated with delivering enhanced functionality of this nature. These individuals suggested that the service should instead be kept very simple, and be focussed solely on delivering core functionality as effectively as possible. The cost/benefit of providing additional functionality therefore needs careful consideration, and in some cases should be reviewed with HEFCE staff, in light of anticipated REF audit requirements. A further finding of the consultation is that there remains significant uncertainty within the sector on how these audit requirements are to be met, and what institutional processes and procedures are needed to deliver and demonstrate compliance.

2. Introduction

2.1. Background

The Higher Education Funding Council for England (HEFCE) has commissioned the Centre for Research Communications (CRC)¹ at the University of Nottingham to develop a new service to support authors and institutions meet the new open access (OA) requirements for the post-2014 Research Excellence Framework (REF).² The policy states that, to be eligible for submission to the post-2014 REF, authors' final peer-reviewed manuscripts accepted for publication after 1 April 2016 must have been deposited in an institutional or subject repository on acceptance. This applies to journal articles and conference proceedings with an International Standard Serial Number (ISSN). Deposited material should be discoverable, and free to read and download, for anyone with an internet connection.

The new tool developed by the CRC (called SHERPA/REF) will build on the current portfolio of SHERPA services (RoMEO, JULIET and FACT); it will help authors and institutions ascertain whether a journal allows them to comply with the HEFCE policy and what to do when it does and when it does not. As part of the project, the CRC commissioned Research Consulting to undertake a consultation to identify stakeholder requirements and inform service specifications for SHERPA/REF. The findings of the consultation will be used to ensure that the tool meets user requirements as effectively as possible.

Our mandate was to identify and consult with a range of stakeholders and develop and refine a detailed set of stakeholder requirements and service specifications for the SHERPA/REF author support tool. The stakeholder groups identified for inclusion in this phase of the consultation process included authors, institutional administrators and research funders. It is recognised that publishers and software suppliers are also important stakeholders in the proposed service, and their views will be sought in subsequent phases of the project.

2.2. Terms of Reference

Building on the results of the stakeholder consultation process detailed below, Research Consulting was tasked with delivering a stakeholder requirements and Service Specifications Report which would include:

- Requirements specification for SHERPA/REF, indicating what information stakeholders want to receive when using the application - the aim being to draw a list of essential and optional features;

¹ Further information on the work of the CRC can be found at: <http://crc.nottingham.ac.uk/>

² The REF open access policy can be found at: www.hefce.ac.uk/pubs/year/2014/201407/#d.en.86771

- A list of concerns and potential problems to be faced by users in using this tool to comply with HEFCE requirements, and some suggestions for their solution;
- User stories defining how typical actors (authors, research managers, institutional repository managers, publishers, funders and so forth) will accomplish particular goals with the application.

Research Consulting was also commissioned to work with the SHERPA/REF project manager to prepare:

- Use cases and use case diagrams; and
- Business process map for the web application.

This document is a public version of the report, reflecting on the results of the stakeholder consultation exercise, and is made available under a CC-BY licence with the permission of CRC and HEFCE.

2.3. Methodology

Stakeholder views and requirements for the development of SHERPA/REF were gathered through semi-structured interviews and online surveys. Both consultation methods were based on similar sets of questions. The quantitative analysis presented in this report is based on the results of the online surveys, while the narrative observations reflect the survey results and more detailed information obtained from the interviews. Fourteen phone interviews were carried out with individuals representing the following stakeholder groups:

- Two repository staff
- Two research office staff
- Three senior library or/and research office staff
- Four academics (two from scientific, technical, engineering and mathematic disciplines and two from humanities and social sciences)
- Three representatives from funders

The interviews were based on four questionnaires specifically targeted to support staff, authors, research funders and Jisc. The questionnaires had been distributed to interviewees well in advance of the conversation, which in many cases allowed interviewees to discuss the questions with colleagues in their organisations, and provide an institutional response.

Two online surveys were prepared, for authors and support staff, and were widely distributed to academics, librarians, research managers and other administrative staff via Jisc, ARMA, UKSG and SCONUL mailing lists and newsletters, a HEFCE announcement and social media. The question sets used are included in appendices 1 and 2. The total number of responses for the two surveys was 610, of which 243 came from authors and 377 from support staff. However, all responses were optional and the number of respondents for each individual question was therefore lower: typical response rates to individual questions for authors were between 153 and 169 responses, while for support staff the number of responses ranged from 194 to 264 per question. Respondent authors represent 29 high education institutions, but 140 out of 166 complete responses came from only 10 institutions. By contrast, support staff come from 109 institutions, almost all of which are

universities, while a handful worked in research institutes (4), libraries (3) and vocational schools (1). Respondents were largely UK-based, however a small number of overseas institutions also participated. For a full list of participating institutions, see appendix 3.

Over 51% of respondent authors were lecturer or researchers, 24% had a professorial role and just under 20% of respondents had a junior research role (PhD, post-doc and research fellows). Participation was evenly distributed among academics submitting under all four REF panels (maximum differential was 20% for Panel B versus 30% for Panel D). Among support staff, over 53% worked in the library (excluding the repository), while repository and research support staff accounted for around 27% each. Almost 12% of respondents held roles that did not fit neatly in any of the above categories, such as Current Research Information System (CRIS) managers, information services staff and research support staff at school/faculty level.

2.4. Report structure

The remainder of this report is structured as follows:

- Section 3 addresses the role and value of the proposed SHERPA/REF service, based on the responses of both authors and support staff.
- Section 4 summarises the requirements identified by authors, as they emerge from the author-specific questions of the online survey and from the interviews.
- Section 5 discusses the requirements identified by support staff and other administrators in the online survey and interviews.
- Section 6 notes potential wider benefits and applications of the SHERPA/REF service.
- Section 7 sums up the findings of the consultation and provides recommendations for the development of the tool.

2.5. Acknowledgements

This report would have not been possible without the willingness of the interviewees and survey respondents to contribute information on their experiences and needs. Thanks are due to the CRC for their guidance and input throughout the project, and the contribution of HEFCE staff in providing feedback on the draft findings and assisting with the dissemination of the online survey is gratefully acknowledged.

3. Role and value of the SHERPA/REF service

- 65% of authors stated that SHERPA/REF would be very useful for them and 24% somewhat useful; 96% of support staff expect to use SHERPA/REF in their institution
- Reasons mentioned for staff not using the tool are that only a small minority of journals will not comply with HEFCE OA policy and that exceptions will be granted in such cases (although non-compliant journals would still need to be identified by another means)
- Most authors estimate the time to check the compliance of a journal with the REF OA policy to be around 30-60 minutes in the absence of SHERPA/REF, which is substantially longer than previous estimates of author time requirement for the deposit process
- A time saving of 30 minutes for authors and 10 minutes for administrative staff through use of SHERPA/REF could generate over £2m in cost savings per annum for the sector
- The general message from respondents is that responsibility for making publications comply with OA policies is shared between authors (pre-publication responsibility) and support staff (post-publication responsibility)

3.1. Role of the SHERPA/REF service

SHERPA/REF is intended to build on the existing portfolio of SHERPA services. It will draw on the SHERPA/RoMEO database of publishers' policies on copyright and self-archiving, and will provide a similar service in some respects to the existing SHERPA/FACT tool. The latter enables authors to check if the journals in which they wish to publish their results comply with the open access requirements of Research Councils UK and a number of UK-based medical charities. An important focus of the consultation was to establish whether there is in fact a need for an additional service, and if so, how it should align with other SHERPA services.

Authors were therefore asked to provide an indication of how useful it would be for them to be able to access a service that provides clear and accurate information on whether a journal's open access policy complies with the open access requirements for REF.

Fig 1 - Author survey: How useful will SHERPA/REF be for you?

Response	Chart	Percentage	Count
Very useful		64.9%	109
Somewhat useful		23.8%	40
Not very useful		4.2%	7
Unsure		7.1%	12
		Total Responses	168

65% indicated that the service would be very useful, just under 24% said it would be somewhat useful and only 4% that it was not useful at all. This indicates that there is significant demand amongst the author community for a service that is specifically designed to help them achieve compliance with REF open access requirements.

In some cases, responses provided by institutional support staff challenged the need for the service, however. One respondent noted that while SHERPA/REF is intended to check compliance in respect of embargo periods, the practicalities of deposit, compliance monitoring and reporting are more pressing issues for institutions. Another explained, “We assume that our authors publish in the most appropriate journal for their work, so any journal that doesn't comply with the REF policy because of the length of the embargo period would fall within a legitimate exception”. A third interviewee noted that as only a small proportion of journals are non-compliant with the REF policy³, it might be easier simply to maintain a list of such journals rather than operate a full service.

These are legitimate concerns, but they were expressed by only a small minority of respondents, typically from the most research-intensive institutions which offer a mediated service intended to minimise the burden of OA requirements on authors. Overall, 96% of support staff indicated they would expect the SHERPA/REF service to be used at their institutions (see section 5.1). The majority of the support staff we interviewed were similarly supportive of the service, and stated they would expect to actively promote its use by authors as part their internal advocacy efforts. In response to the suggestion that compliance is only an issue for a small minority of journals, one survey respondent observed: “As an Institutional Repository manager and OA compliance officer in a specialist arts university, I assure you there will be more than 5% uncertainty about compliance in arts and humanities disciplines”.

3.2. Estimating the value of the SHERPA/REF service

Authors were asked to estimate how long it would take them to check the compliance of a journal with the REF open access policy in the absence of SHERPA/REF. Estimates vary considerably, from 5

³ HEFCE’s own analysis of a sample of outputs submitted to the 2014 REF showed that 96 per cent of outputs could have complied with the access requirements had they been in place sooner (and 100 per cent of outputs could have complied with the deposit requirements). See www.hefce.ac.uk/whatwedo/rsrch/rinfrastruct/oa/faq/

minutes to ‘a couple of days’ but the majority of replies are in the range of 30 - 60 minutes. One author stated that checking compliance “would add to the process of selecting a journal [...] as well as actually [ensuring that articles are made] open access.” Complaining about the additional burden that checking compliance with HEFCE OA policy will place on authors, one respondent stated “I would strongly welcome a tool to do this for me. However I would need to have strong confidence that the tool gave reliable advice.”

Assuming that the SHERPA/REF service saved authors only 30 minutes per article, it is possible to estimate the range of annual savings this would represent for the sector as a whole. Our existing methodology for calculating the administrative costs of open access is set out in our 2014 report *Counting the Costs of Open Access*⁴, and the same methodology is used here for consistency. It is notable that the estimates of 30-60 minutes provided by authors in the SHERPA/REF survey are substantially higher than the estimated author time involved in making articles green OA in the 2014 study, which was only 16 minutes. This supports the observation made in that study that the REF policy is likely to make the green OA process more time-consuming, costly and administratively burdensome than was previously the case.

It is anticipated that SHERPA/REF would also deliver some savings in administrative time, assumed at 10 minutes per article for the purposes of this exercise (being 50% of the time currently spent by administrators checking article eligibility, per our 2014 study). The range of potential savings for the sector as a result of SHERPA/REF is therefore as follows, using the same scenarios for article numbers as in our previous study:

Scenario	10,000 articles	25,000 articles (approximate REF-returnable outputs per annum)	70,000 articles (50% of UK article outputs)	140,000 articles (entire UK article output)
Author time saving of 30 minutes per article	£0.28m	£0.70m	£1.96m	£3.91m
Administrative time saving of 10 minutes per article	£0.06m	£0.14m	£0.40m	£0.81m
Potential savings per annum	£0.34m	£0.84m	£2.36m	£4.72m

These estimates clearly demonstrate that even if the service is only used for REF-returnable outputs, it could save the sector close to £1m a year. 54% of authors would expect to manually check publisher policies on each of their articles in the absence of the service (see section 4.1), therefore if

⁴ Research Consulting. (2014). Counting the costs of open access. Nottingham: Research Consulting. Prepared on behalf of London Higher and SPARC Europe and available at: <http://www.researchconsulting.co.uk/wp-content/uploads/2014/11/Research-Consulting-Counting-the-Costs-of-OA-Final.pdf>

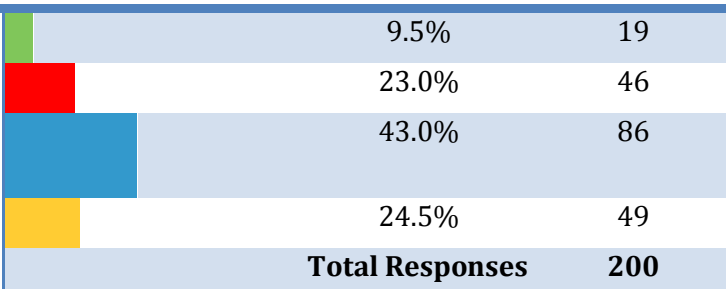
all of these used SHERPA/REF instead the savings are likely to be closer to the 70,000 article scenario, thus exceeding £2m per annum. A small number of interviewees made the important observation that if SHERPA/REF is to save time in practice, it is essential that HEFCE formally endorse the service. This would mean that checking a journal’s compliance via SHERPA/REF is deemed to provide sufficient evidence to satisfy HEFCE requirements, without any need to refer to the underlying publisher policy.

The value of the service also extends beyond financial savings, as it should provide an important mechanism by which the REF policy can be communicated to authors, and which will help them to make articles open access. The high level of interest and engagement from both authors and support staff in the consultation about the service further illustrates its perceived importance for the sector.

3.3. Perception of responsibilities for ensuring that publications comply with REF open access policies

All survey participants were asked to indicate whether responsibility for making publications compliant with REF open access policy in their institution lies with authors or support staff.

Fig 2 - Support staff survey: Who will be responsible for making the full text of the article open access at the end of the embargo period?

Response	Chart	Percentage	Count
Authors		9.5%	19
Administrative staff (manually)		23.0%	46
Administrative staff (via an automated process)		43.0%	86
Unsure		24.5%	49
		Total Responses	200

Around 45% of respondents from both groups indicated that responsibility lies with authors, while a much lower percentage believed that it was the responsibility of support staff (5% of authors and 12% of support staff). A significant proportion of respondents in both groups were unsure over who is responsible for the process; this uncertainty affects 1 in 4 support staff and 1 in every 2 authors and may reflect the fact many institutions are still developing their internal guidance and processes.

In the free-text responses, support staff clarified that responsibility for ensuring compliance with OA policies is often shared. One respondent stated “authors have primary responsibility for ensuring that the article is entered into a repository and the full text is uploaded within 3 months [while] administrators have responsibility for ensuring that the publication is made accessible and discoverable at the appropriate point(s)”. This is consistent with the information provided in the interviews, where respondents typically identified a dual or shared responsibility between authors and support staff. 2 in 3 support staff agreed that it was the responsibility of administrative staff to

make the full text of an article that was submitted to a repository openly accessible at the end of the embargo period.

4. Author requirements

- Over 80% of authors stated that it would be important, very important or essential to have the confidence that any publication could be eligible for the REF, suggesting that the SHERPA/REF service would be widely used
- If SHERPA/REF did not exist, 54% of respondents would manually check a journal's OA policy and 27% would seek institutional support
- 87% of survey participants would like the new service to display information on other research funders' OA policies, which supports the need for a high level of integration with SHERPA/FACT
- Support for optional features varied considerably, with tracking services allowing authors to check a journal's historic compliance or be informed of changes to journal OA policies and embargo periods receiving most support
- Authors also supported features allowing them to suggest adding a journal to the SHERPA/REF database (75%) and providing a list of alternative journals that comply with OA policies (83%)

4.1. Authors' approach to OA publication

To begin with, authors were asked about their experience of open access publishing and their awareness of the open access policy context. These questions were aimed at gauging the level of academic engagement with OA, but also the level of familiarity of respondents with the specific issues raised in the survey. Interestingly, most respondents had heard about the new HEFCE OA policy for the post-2014 REF, but over half of them were unaware of the details of the policy. In fact, three out of four authors declared themselves to be 'aware of the new HEFCE policy on open access (OA) and its effect on publication eligibility for the post-2014 REF', yet only 46% of them knew that the policy will apply to all journal articles and conference proceedings accepted for publication from 1 April 2016.

Authors were then asked a series of questions related to their current approach to publication and REF submission. The respondents' confidence in knowing whether or not a given article will be submitted to the REF varies, with most responses (46%) indicating an average level of confidence, just under 30% of responses a high level of confidence and just under 25% a low level of confidence. However, the large majority of authors (over 80%) indicated that it would be 'important', 'very

important' or 'essential' to have the confidence that any of their publications could be eligible for submission to the REF.

Fig 3 - Author survey: How important will it be for you to ensure that any article you publish will be eligible for submission to a future REF?

Response	Chart	Percentage	Count
Unimportant		6.6%	10
Somewhat important		11.2%	17
Important		19.7%	30
Very important		37.5%	57
Essential		25.0%	38
		Total Responses	152

The survey indicates that over 53% of respondents have experience making an article open access, while 35% do not and 11% are unsure; it also showed that over 71% of respondent authors have experience checking the open access policy of an academic journal, but most of them (almost 1 in 2) do so by consulting the publisher's website, while only 1 in 10 uses SHERPA/RoMEO and 1 in 6 seeks institutional support.

Authors were also asked how they would check compliance of a journal's open access policy with the HEFCE open access requirements if SHERPA/REF were not to be developed.

Fig 4 - Author survey: How will you check this if SHERPA/REF does not exist?

Response	Chart	Percentage	Count
I would manually check the policy of each journal in which I publish		54.2%	83
I would seek support from my institution		26.8%	41
I probably would not check		7.2%	11
I do not know		8.5%	13
Other, please specify...		3.3%	5
		Total Responses	153

Over 54% of the respondents affirmed that they would manually check the publisher's policy while almost 27% would seek institutional support and over 7% would probably not check compliance. A few respondents stated that they would manually check the journal policy and seek institutional support as well, while two other authors suggested that they would use SHERPA/RoMEO to try to

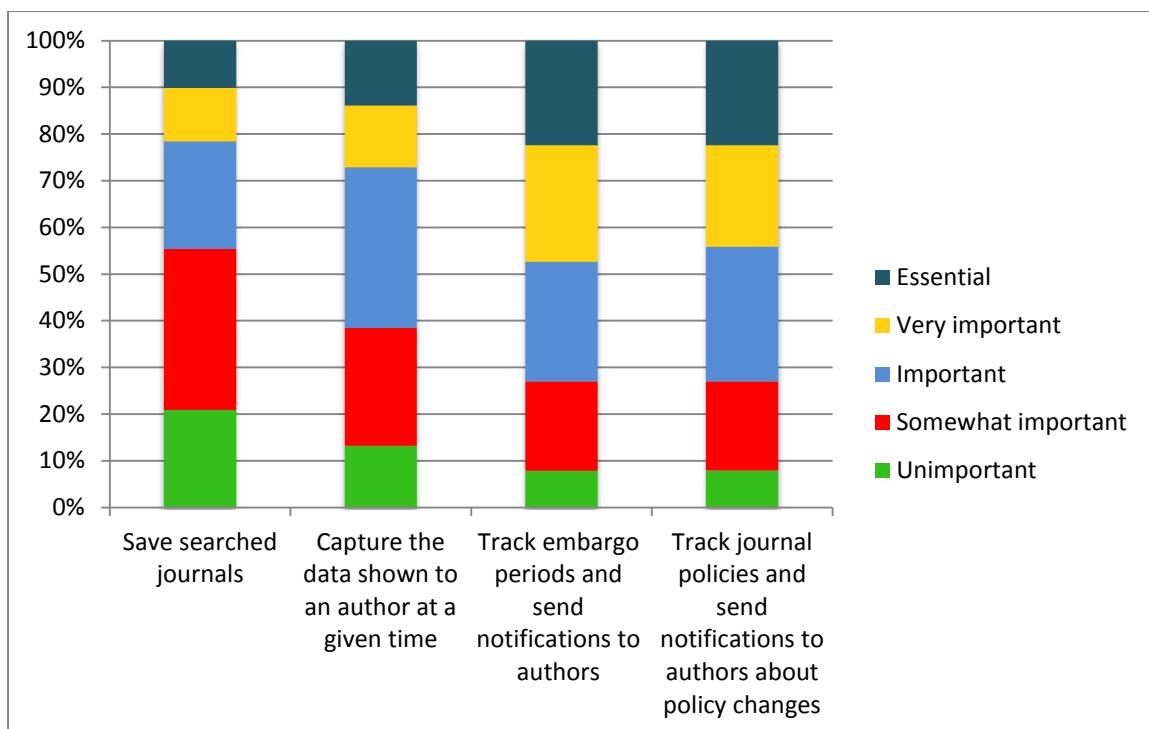
work out whether a journal policy complies with the REF. Finally, a small number of respondents expressed reservations on the idea that their choice of a journal might be influenced by open access policies and worried about the additional administrative burden this places on them.

4.2. Authors' preferences regarding the provision of information in SHERPA/REF

The survey investigated what information authors would like to receive from the service, in addition to basic information on compliance with REF policy. Authors also expressed a desire to receive information about what to do when a journal's policy does not meet the requirements and the university will not provide funds for open access, particularly looking at the various options available for publishing OA without having to pay and information on the exceptions granted by HEFCE. Overall, this response shows that the large majority of authors would like to receive as much information and guidance as possible about how to comply with open access policy requirements, with only one author stating that academics do not know much about open access and therefore would need basic information.

The questions then looked into more detail at some of the optional features and processes that SHERPA/REF might offer. 3 out of 4 respondent authors said that it would be important to see a journal added to the SHERPA/REF database should this not be present. In contrast, support for the creation of user accounts was less strong, although respondents attached particular importance to some user account functionalities such as tracking embargo periods and changes to journal policies. The response is summarised in the table below.

Fig 5 - Author survey: what value do you see in a service offering individual or institutional user accounts to do the following?



Authors also suggested additional features for the user account, such as including a list of journals in their subject area based on impact factor, tracking re-use permissions of their articles, providing information on APCs for selected journals and a flagging system that indicates the compliance with open access policies of all selected journals as well as alternative journals in the same area.

The survey asked authors how important it would be for them if SHERPA/REF could record a journal's historic compliance with HEFCE open access policy, which would allow checking whether a journal was compliant at a specified point in the past. 88 authors provided written responses to this question, of which 41 agreed that the service would be important if it allowed demonstrating compliance with the REF at the moment of submission. Only 20 thought this would not be an important service and 13 were unsure. Author responses were distributed fairly evenly between those who deemed recording the data provided by SHERPA/REF undoubtedly important and those who consider it relatively unimportant. From the free text responses it emerges that this polarisation is largely due to the uncertainty over whether an audit trail of SHERPA/REF searches would be required by HEFCE as proof of compliance. Finally, authors expressed a strong preference (83%) for receiving a list of alternative journals suggested by peers that are compliant with the post-2014 REF OA policy.

4.3. Institutional policies

The results were much less clear with regards to the importance of receiving information about institutional open access policy. The survey showed that 3 in 4 authors (73%) would like to access information on their institution's OA policy, while only 1 in 2 (53%) would like to have contact details of their institutional support services for OA. However, when asked about the level of importance attached to receiving information about institutional OA policy, only 32% would deem this very

important or essential while 39% do not attach much importance to this. Similarly, interviewees were unconvinced about the benefits of presenting institutional policies, with some noting that authors would be most likely to access their institutional policy and guidance first, and then follow a link to the SHERPA/REF service from there.

Fig 6 - Author survey: how important would it be for you to also receive information about your institution’s OA policy when consulting SHERPA/REF?

Response	Chart	Percentage	Count
Unimportant		9.7%	15
Somewhat important		29.2%	45
Important		28.6%	44
Very important		16.2%	25
Essential		16.2%	25
		Total Responses	154

5. Support staff requirements

- 93% of respondents expect SHERPA/REF to be used by both authors and support staff
- 66% of respondents expect authors to use the service at journal selection and 20% on acceptance, while 58% expect support staff to use it from the moment of acceptance
- 91% of respondents want SHERPA/REF to state that compliance cannot be established, when this is the case
- 90% of respondents would like SHERPA/REF to be integrated with SHERPA/FACT, and some indicated a preference for integration across all SHERPA services
- Support staff are generally in favour of the inclusion of tracking and monitoring services in SHERPA/REF, although only the ability to keep a record of search results as evidence of compliance attracts strong support
- Enthusiasm for user accounts is more lukewarm, indicating that this would be a non-essential feature; preference is given to institutional user accounts over individual ones

5.1. Expected use of SHERPA/REF

Support staff were asked whether they expect SHERPA/REF to be used by authors as part of their publication workflow or by support staff, if the library or the research support office takes on the responsibility for tracking publications and their compliance.

Fig 7 - How would you expect SHERPA/REF to be used at your institution?

Response	Chart	Percentage	Count
Solely by authors		1.0%	2
Primarily by authors		8.7%	18
Equal use by authors and administrative staff		63.8%	132
Primarily by administrative staff		20.3%	42
Solely by administrative staff		2.4%	5
We would not expect to use the service		3.9%	8
		Total Responses	207

As shown in figure 7, around 93% of respondents acknowledged that the service will be used by both academic and administrative staff while only 2 out of 207 respondents expected authors to be the only users and 5 thought the service would be used exclusively by support staff. For some survey participants, however, equal use by authors and administrators was a hope rather than an expectation: “currently administrative staff use SHERPA/ROMeO almost exclusively but we are trying to change author behaviours so they take more ownership of this, so going forward we would like to it used equally by authors and administrative staff.” Others are concerned that the new HEFCE policy will cause a higher workload and more administrative difficulty, with one expressing the fear that they “won't be able to reach a very high level of compliance, especially with the 'date of acceptance' being chosen as the deadline”, which only authors know by default.

In contrast, another respondent stated that “the HEFCE policy forces individuals to take responsibility for open access because of the 'date of acceptance' requirements” and added that “it's not currently possible for administrative support to systematically and constructively support authors, apart from telling them what [they need] to do”.

Several respondents also indicated that their institutions are looking into making the deposit process automatic; this would include uploading a publication within three months from acceptance, checking the metadata and making the full text available at the end of the embargo period (question 7). Eight respondents would not expect authors or administrators to use the service at all, whereas 18 expected authors to not use the service at all.

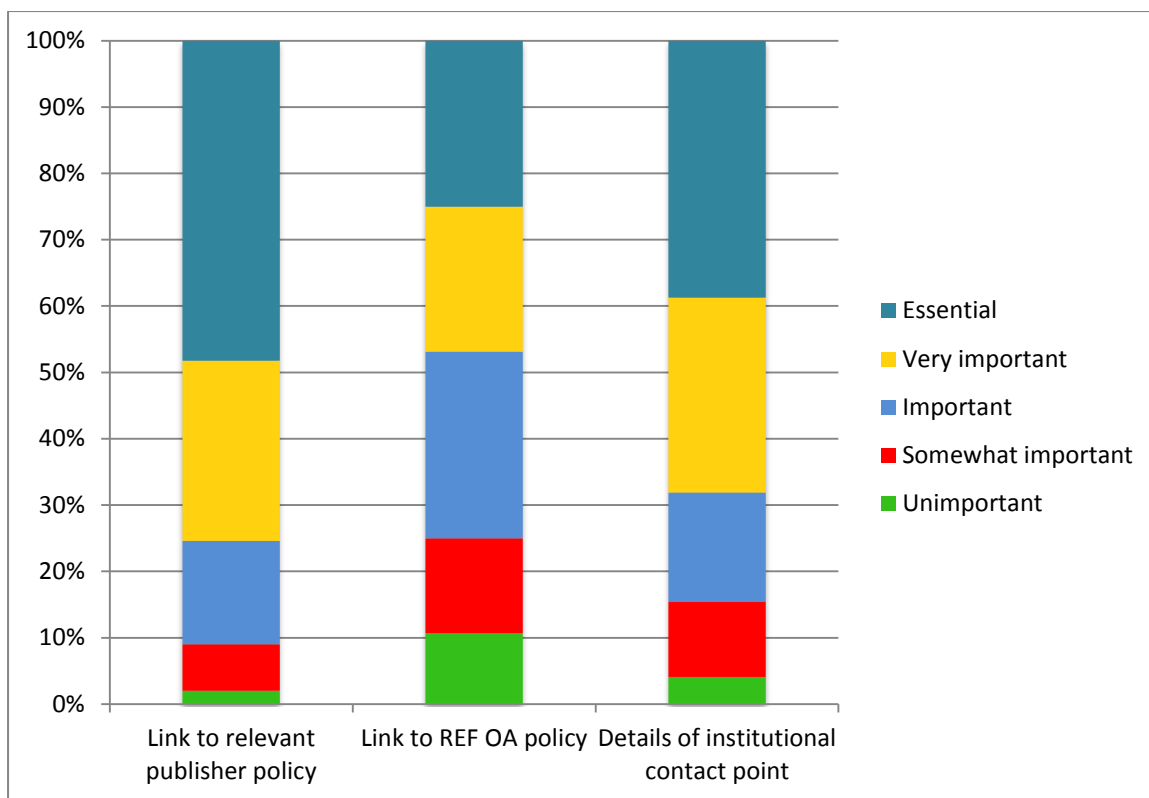
Support staff were also asked at what stage of the process they expected authors and administrators to make greatest use of SHERPA/REF. The large majority of respondents (66%) expected authors to use the service prior to submission, to inform journal selection, or alternatively on acceptance (20%).

By contrast, administrators see their role as being very much one of compliance-checking and management from the moment of acceptance (58%), publication (10%) post-publication (15%), with only 12% expecting to use the service at the time of journal selection. This is not surprising, and it is consistent with the information gathered in the interviews. One respondent added that the “only way we can think of making this work as an institution and to avoid putting undue burden on researchers is to have a system whereby researcher notifies us of the acceptance and admin does the rest”.

5.2. Information provided by SHERPA/REF

Asked about how SHERPA/REF should treat uncertainty when a journal’s OA policy cannot be established, support staff overwhelmingly indicated that the service should ‘state that compliance cannot be established’ (91%) as opposed to treating an uncertain journal policy as either non-compliant (7.5%) or compliant (1.5%). They further indicated that, in such cases, the provision of further information to users would be, in the vast majority of cases, ‘important’, ‘very important’ or ‘essential’. Linking to the publisher policy is the most valuable information, and some respondents also suggested including a link to a relevant publisher contact. Details of institutional contact points are also deemed very important, although a few respondents stressed that this should not require users to log in to indicate their affiliation and suggested providing a link to a list of contacts for all major institutions. Doubts are also raised on how this function could be extended outside the UK.

Fig 8 - Where compliance cannot be established, how important will it be to provide the user with the following information?



5.3. Integration of SHERPA/REF with existing services

Support staff were asked whether SHERPA/REF should be integrated with SHERPA/FACT, an existing tool that helps researchers check if the journals in which they wish to publish their results comply with their funder's (e.g. Research Councils, medical charities and so forth) requirements for open access to research.

Fig 9 - Support staff survey: how should the SHERPA/REF service interact with the SHERPA/FACT service?

Response	Chart	Percentage	Count
Standalone service, separate from SHERPA/FACT		8.2%	16
Combined service, that presents REF compliance and compliance with other funders' requirements simultaneously		61.3%	119
Combined service that presents REF compliance first, and compliance with other funders' requirements as an additional step		28.4%	55
Combined service that presents compliance with other funders' requirements first, and REF compliance as an additional step		2.1%	4
Total Responses			194

Only 8% of respondents would like to have a separate service, while over 61% indicated that their preference would be for an integrated service that would present the information simultaneously. In fact, several respondents indicated that it might be useful to connect all the SHERPA services (RoMEO, JULIET, FACT and REF), so that end users can find all the information they need in one place. Consistent with the information gathered in the interviews, integration with other SHERPA services is deemed to be essential, because authors and administrators will be more likely to use the service if they can find all the information in one place. The interviewees were however split on whether information on compliance with REF and other funder policies should be presented simultaneously, with some concerned that this could result in ‘information overload’.

A strong preference for integration with existing SHERPA services was also voiced from authors. 87% of respondent authors indicated that they would like SHERPA/REF to indicate whether a journal complies not only with REF but also with other research funders’ policy (this information is currently provided by SHERPA/FACT). Telephone interviews with authors indicated a strong preference for having all information about research funders and REF in one page.

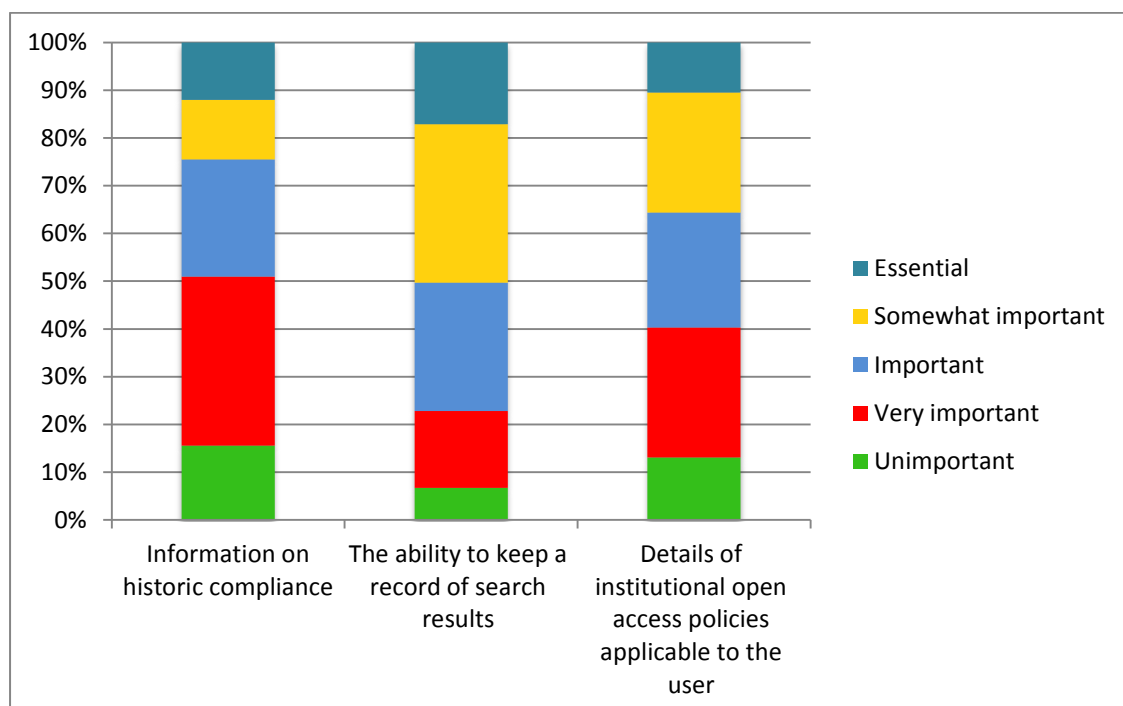
5.4. Provision of an API

The support staff survey also investigated whether further benefits could be achieved by making available an application programming interface (API) to allow other software tools, such as Current Research Information Systems (CRIS), to make use of the SHERPA/REF data. Many respondents were unsure how they might use a SHERPA/REF API, and others stated that their institution does not currently have a CRIS. Some indicated that a machine-readable, downloadable file that could be incorporated into publications management software, or simply used as a reference document in Excel, would be more useful. Most respondents, however, did indicate that integrating the SHERPA/REF API into their CRIS and/or repository system would be useful, provided that the third-party software developers could build the integration into their product. One respondent said that this “would allow our RIS to provide a 'check SHERPA/REF/FACT' button within our system so academic staff do not have to find and use multiple systems” and that this may be “similar to the 'resolve DOI' button”. Interviewees also stressed that data on REF compliance should be made available as an extension of the existing SHERPA/FACT API, not a separate API, with one noting that moving the existing API out of ‘beta’ status should be completed before any attempt was made to extend it.

5.5. Tracking, monitoring and assessing compliance

The survey explained that, while the immediate function of the service would be to answer whether a journal is compliant, there is potential for it to support monitoring and assessment of compliance, for instance by: providing information on a journal’s historic compliance with HEFCE OA policy, keeping records of search results and providing details on institutional OA policies. The ability to record searches was deemed important to essential by over 77% of respondents, while the provision of details of institutional OA policies was strongly supported (important to essential) by 60% of respondents and information on historic compliance by 49% of respondents.

Fig 10 - Support staff survey: how important would the following compliance and audit functionality be for you?

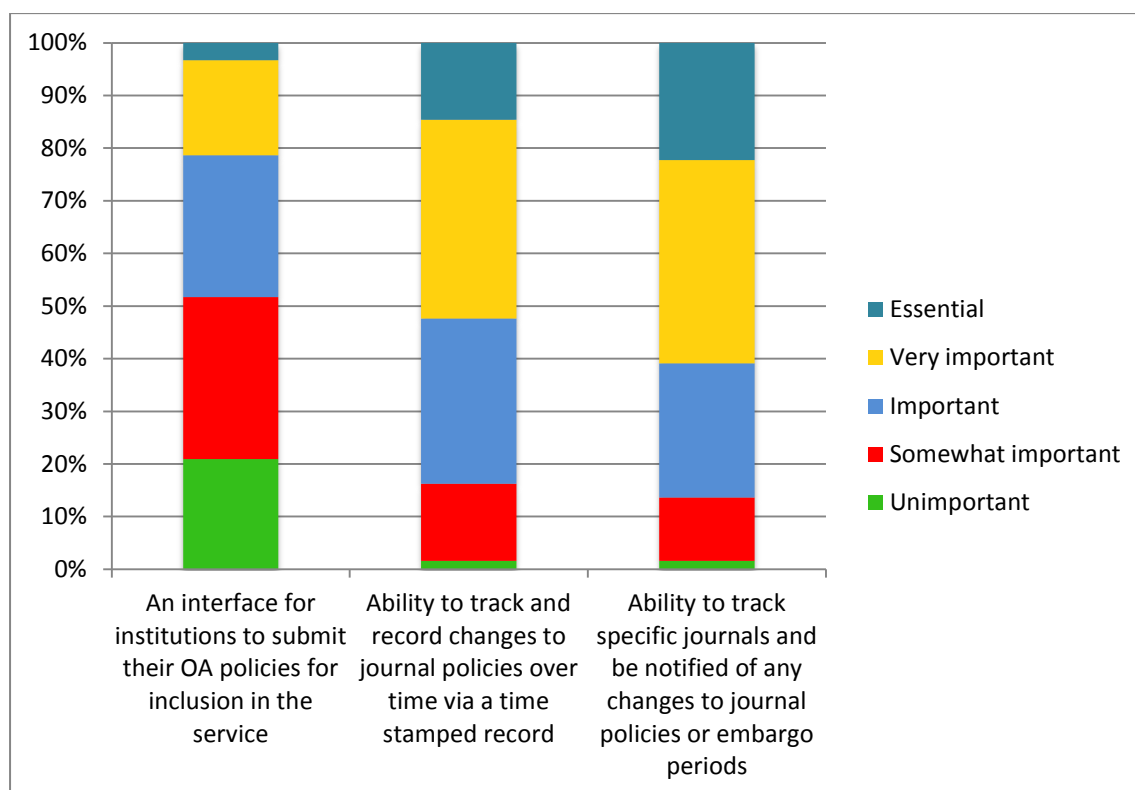


Despite an overall strong support for recording data as proof of compliance, some respondents expressed concerns that it would be administratively burdensome, if not impossible, for institutions to obtain and store separate records for individual searches. It was also apparent that many respondents remain uncertain about what information will be required by HEFCE for audit purposes. The inclusion of functionality allowing users to maintain a copy of search results risks creating an expectation that this is required in all cases, and so this merits careful consideration in discussion with HEFCE. This issue relates to cases where checking is contemporaneous with acceptance for publication, while checking historic compliance where material has been made available is a slightly different case. One respondent indicated that “it is likely that the CRIS will provide the audit trail information we need to demonstrate compliance for an individual output, so we do not need SHERPA/REF to perform this function”.

The provision of details on institutional OA policies received mixed support: some respondents indicated that this would reinforce their advocacy efforts (which focus on the message that complying with institutional OA policy also means complying with HEFCE and research funders’ OA policies) but overall this was seen as a non-essential feature. Moreover, from the interviews it emerged that some institutions do not have an institutional policy specific to OA and therefore could not provide this information to SHERPA/REF in the first place.

Support staff also commented on the importance of additional functionalities, namely: an interface for institutions to submit their institutional OA policies, the ability to record changes to journal policies over time, and the ability to be notified of changes to journal policies. The last two functionalities attracted most support, with a majority of around 85% expressing support (important to essential).

Fig 11 - Support staff survey: how important are the following additional functionalities?



5.6. User accounts

The majority view was that user account functionality would be useful rather than essential, and that it would be likely to deter use by authors if it was not made optional (i.e. unless SHERPA/REF could also be used to carry out simple searches without the need to login). Respondents also indicated concerns relating to the additional administrative burden placed on support staff, particularly with regards to the sign on process. Use of single sign on was therefore seen as a prerequisite for the adoption even of optional author accounts: this could take the form of an institutional single sign on (e.g. using Athens or Shibboleth) or an individual sign on using ORCID ID. The latter would offer some potentially valuable functionality, such as the ability to import an author's past list of publications from their ORCID record and present compliance information across all of these journals, or to source data on alternative publications that could be used in place of a non-compliant journal.

The survey also explored whether user accounts should be individual or institutional. Many support staff were in favour of institutional user accounts for various reasons: because they may be more useful to institutions than to authors, because they improve coordination between staff (e.g., library and research support staff) and because they believed that most authors would not want to create an individual user account. Some respondents indicated that institutional accounts would be most useful at department level as this would make it easier to monitor and support individual researchers. However, it emerged from the interviews that authors would be concerned at any use

of institutional accounts to monitor their activity. Those who supported individual accounts, (roughly 1 in 8 respondents) did so on grounds of security (no sharing of passwords) and flexibility (allows customization). The option of having separate accounts at individual, department and institutional level, was also mentioned repeatedly, but would be logistically difficult to deliver.

Overall, there was a lack of consensus on the value of user accounts, and it seems likely that the disadvantages and complexity of their implementation would outweigh any potential benefits for the majority of users. Offering an optional integration with ORCID for authors, and an institutional 'power-user' account that would offer additional functionality (eg the ability to download data from the service) would seem to be the only cases where there may be value in pursuing this functionality.

6. Wider benefits of the service

In addition to meeting the needs of authors and support staff, a number of survey respondents and interviewees noted that the SHERPA/REF service, and its underlying data, could deliver wider benefits for funders, policy makers and the sector at large. For example, only a small number of individual users are likely to benefit from the ability to check historic compliance or be notified of changes in journal policies. However, if the service could supply aggregated data on how journal embargo periods have changed and whether journals are becoming or less compliant with REF policy over time, this would be of significant value.

Respondents also identified scope for the SHERPA/REF service to feed or interact with a wide range of other services, including Jisc Monitor and Publications Router, journalguide.com, and potentially CrossRef, Datacite and ORCID. In many cases these interactions could be facilitated through provision of an API as previously outlined, but respondents were keen that these use cases be considered in development of the services.

Finally, a small number of overseas respondents noted their reliance on SHERPA services, and requested advance notice of any changes that might affect the existing provision, particularly with regard to the API.

7. Conclusions and recommendations

The consultation provided some indications about user expectations and requirements for SHERPA/REF. The specifications will thus have to take into consideration the following points:

1. Demand for the service

- There is a strong demand from authors for a tool that gives them the confidence that any publication could be eligible for the REF
- If SHERPA/REF did not exist, authors would manually check a journal's OA policy or seek institutional support

2. Use and value of the service

- SHERPA/REF will be used by both authors and support staff, but at different stages of the publication process
- SHERPA/REF offers the potential to save 30-60 minutes of author time, and perhaps 10 minutes of support staff time, in checking compliance with OA policies, which, taking the lower estimate, might result in a total saving for the sector of £2m per annum

3. Essential features and quality benchmarks

- **Simplicity:** respondents want a user-friendly tool with clearly displayed and communicated information
- **Accuracy:** SHERPA/REF is expected to have a comprehensive database which is regularly updated
- **Transparency:** SHERPA/REF should clearly state when the information was last updated and when compliance cannot be established
- **Guidance:** SHERPA/REF should provide users with thorough information and guidance on what to do in case of non-compliance or uncertain compliance
- **Integration:** SHERPA/REF should be integrated with SHERPA/FACT (this was advocated very strongly by both authors and support staff) and possibly with all other SHERPA services – e.g. creating a SHERPA/OA tool

4. Optional features

The provision of optional features needs careful consideration to ensure it is justified on grounds of cost/benefit, and does not compromise usability. The following features received most support:

- The ability to keep a record of search results as evidence of compliance with HEFCE policy,
- Features allowing users to track a journal's historic compliance and changes to journal OA policies and embargo periods
- Features allowing users to suggest a journal to be added the SHERPA/REF database, and providing a list of alternative journals that comply with OA policies
- User accounts are seen as useful to deliver additional functionalities, but not essential; institutional and individual accounts would have to be established, both using a one-click sign on process to reduce time (e.g. Shibboleth for institutions and ORCID ID for authors)

5. Other considerations and areas for further work

In addition to the observations above regarding the specifications of the service, Research Consulting also recommended possible areas for further work for consideration by the CRC and HEFCE. These are not in the public domain.

Appendix 1 – Online survey question set (Authors)

Background information

1. Please provide the name of your Institution

2. Please tell us what your role is

- PhD researcher
- Post-doctoral researcher
- Research fellow
- Lecturer/Researcher
- Professor
- Other, please specify... _____

3. Which of the following REF panels does your subject fall under?

For further information on REF panels please see: www.ref.ac.uk/panels/unitsofassessment/

- Panel A
- Panel B
- Panel C
- Panel D

4. Were you already aware of the new HEFCE policy on open access (OA) and its effect on publication eligibility for the post-2014 REF?

- Yes
- No

5. Did you know that it will apply to journal articles and conference proceedings accepted for publication from 1 April 2016?

- Yes
- No

Use of the service

6. Have you ever made an article open access?

- Yes
- No
- Unsure

7. Have you ever checked the open access policy of an academic journal?

- Yes
- No
- Unsure

8. If yes, did you seek or receive support?

- I used SHERPA RoMEO
- I received institutional support (e.g. library staff)
- I did it myself
- I used another service, please specify... _____
- Not applicable

9. SHERPA/REF will provide clear and accurate information on whether a journal's open access policy complies with the open access requirements for REF. How useful will this service be for you?

- Very useful
- Somewhat useful
- Not very useful
- Unsure

Presentation of Results

10. In addition to compliance with REF policy, what other information would you find it useful to have? (Select all that apply)

- Compliance with any research funder's OA policy that applies to your work
- Compliance with your own institutional OA policy
- Contact details of your institution's OA support services
- Other, please specify... _____

11. If the journal you have selected is not yet in SHERPA/REF, how important would it be for you to see this added at a later date?

- Unimportant
- Somewhat important
- Important
- Very important
- Essential

12. What value do you see in a service offering individual or institutional user accounts to do the following:

	Unimportant	Somewhat important	Important	Very important	Essential
Save searched journals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Capture the data shown to an author at a given time (thereby providing an audit trail should a journal status change in the future)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Track embargo periods and send notifications to authors about embargo periods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Track journal policies and send notifications to authors about policy changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify below	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please tell us other services that you would like the user account to offer (optional)

13. In your institution, is it authors or administrative staff who will be responsible for making your publication eligible for REF?

- Authors
- Administrative staff
- Unsure

14. If the tool could record historic compliance, how important would this be for you? This would allow checking whether a journal was compliant at a specified point in the past

Author specific questions

15. When you write an article, how confident are you in knowing whether or not it will be submitted to a future REF?

Please indicate your level of confidence in the 5-point scale below

- 5 (most confident)
- 4
- 3
- 2
- 1 (least confident)

16. How important will it be for you to ensure that any article you publish will be eligible for submission to a future REF?

- Unimportant
- Somewhat important
- Important
- Very important
- Essential

17. How will you check this if SHERPA/REF does not exist? (I.e. what is the process you would follow and how much time do you think this would take?)

- I would manually check the policy of each journal in which I publish
- I would seek support from my institution
- I probably would not check
- I do not know
- Other, please specify... _____

18. In the absence of SHERPA/REF, how long do you expect this checking process to take?

19. In case of a journal being non-compliant, would you be interested in seeing lists of alternative journals - suggested by peers - that are compliant?

- Yes
- No
- Unsure

20. How important would it be for you to also receive information about your institution's OA policy when consulting SHERPA/REF?

- Unimportant
- Somewhat important
- Important
- Very important
- Essential

Appendix 2 – Online survey question set (Institutional Support Staff)

Background information

1. Please provide the name of your Institution

2. Please tell us what your role is

- Library staff
- Repository staff
- Research support office
- Other, please specify... _____

Managing REF compliance

3. Who in your institution will have primary responsibility for making a publication compliant with REF Open Access policy?

- Authors
- Administrative staff
- Unsure
- Other, please specify... _____

4. SHERPA/REF allows users to enter the name of their chosen journal and receive information as to whether that particular journal complies with the HEFCE REF policy. It can be used by authors as part of their publication workflow or by support staff if the library or the research support office takes on the responsibility for tracking publications and their compliance. How would you expect the service to be used at your institution?

- Solely by authors
- Primarily by authors
- Equal use by authors and administrative staff

- Primarily by administrative staff
- Solely by administrative staff
- We would not expect to use the service

5. At what stage in the publication process would you expect staff at your institution to make greatest use of SHERPA/REF?

	Pre-submission, to inform journal selection	On acceptance	On publication	Post-publication	Not expected to use the service
Authors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Administrators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. In order to comply with REF, an article's metadata must be uploaded onto an institutional or subject repository within three months from acceptance. The author's final peer-reviewed manuscript must also be deposited on acceptance, but can be made openly accessible within a maximum of either 12 or 24 months, depending on the particular REF panel concerned. Who will be responsible for making the full text of the article open access at the end of the embargo period?

- Authors
- Administrative staff (manually)
- Administrative staff (via an automated process)
- Unsure

7. Do you have any additional comments on the questions on this page?

Presentation of Results

8. In order to make the service as simple to use as possible, SHERPA/REF will present a simple 'Yes' or 'No' answer to the question of whether a journal complies with the REF OA policy. In a small number of cases (<5%) it will not be possible to determine compliance with certainty (e.g. because the publisher's policy is unknown, unclear or may be outdated). How do you believe the service should handle this:

- Treat uncertainty as non-compliant
- Treat uncertainty as compliant

- State that compliance cannot be established

9. Where compliance cannot be established, how important will it be to provide the user with the following information:

	Unimportant	Somewhat important	Important	Very important	Essential
Link to relevant publisher policy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Link to REF OA policy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Details of institutional contact point e.g. Library OA team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Please note any other comments you may have on the information the service should provide.

Interaction with Other Services

11. SHERPA/FACT is a similar service to SHERPA/REF. It helps researchers check if the journals in which they wish to publish their results comply with their funder's requirements for open access to research. See: www.sherpa.ac.uk/fact/. The REF policy and other funders' policies are similar, but there can be variation between them. While most recipients of a grant from one of the Research Councils (RCUK) will also be subject to HEFCE REF policy, for example, many academics submitting for REF may not have an RCUK grant. The relationship of these policies – and possibly any institutional policies which apply – can be quite complex. How should the SHERPA/REF service interact with the SHERPA/FACT service?

- Standalone service, separate from SHERPA/FACT
- Combined service, that presents REF compliance and compliance with other funders' requirements simultaneously
- Combined service that presents REF compliance first, and compliance with other funders' requirements as an additional step
- Combined service that presents compliance with other funders' requirements first, and REF compliance as an additional step

12. An application programming interface (API) could be made available to allow other software tools, such as Current Research Information Systems (CRIS), to make use of the SHERPA/REF data. Please comment on whether you believe this would be of value, and how such an API might be used in your institution.

Compliance and Audit

13. While the immediate function of the service would be to answer whether a journal is compliant, there is potential for it to support monitoring and assessment of compliance. How important would the following compliance and audit functionality be for you:

	Unimportant	Somewhat important	Important	Very important	Essential
Information on historic compliance, allowing users to check whether a journal was compliant at a specified point in the past	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ability to keep a record of search results (e.g. a pdf download or email confirmation), allowing users to retain evidence of compliance at a given point in time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Details of institutional open access policies applicable to the user to be presented alongside policies from RCUK and HEFCE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Please provide any further comments you can on your expected approach to compliance and audit, and any ways you believe SHERPA/REF could assist with this.

Other Functionality

15. How important are the following additional functionalities?

	Unimportant	Somewhat important	Important	Very important	Essential
An interface for institutions to submit their OA policies for inclusion in the service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to track and record changes to journal policies over time via a time stamped record	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to track specific journals and be notified of any changes to journal policies or embargo periods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. Delivery of some of the above functionality would require the creation and maintenance of user accounts. Please comment on any implications you believe this would have for users of the service, whether positive or negative.

17. Should such accounts be individual, departmental or institutional? Please explain your choice

18. Please provide any other comments you wish to make on the proposed SHERPA/REF service

Appendix 3 – List of participating institutions

UK Institutions
Aberystwyth University
Anglia Ruskin University
Aston University
Bangor University
Bath Spa University
Birkbeck College, University of London
British Antarctic Survey
British Library
Brunel University London
Bournemouth University
Canterbury Christ Church University
Cardiff University
City University London
Coventry University
Cranfield University
De Montfort University
Durham University
Edge Hill University
Edinburgh College
Edinburgh Napier university
Falmouth University
Goldsmiths, University of London
Heriot-Watt University
Imperial College London
Keele University
King's College London
Kingston University
Lancaster University

Leeds Beckett University
Liverpool Hope University
Liverpool School of Tropical Medicine
Loughborough University
Middlesex University
MRC Laboratory of Molecular Biology
National Museums Scotland Library
Newcastle University
Newman University, Birmingham
Northumbria University
Nottingham Trent University
Oxford Brookes University
Plymouth University
Queen Margaret University Edinburgh
Queen's University Belfast
Robert Gordon University, Aberdeen
Royal Holloway, University of London
Sheffield Hallam University
SOAS, University of London
Southampton Solent University
St George's University of London
St Mary's University Twickenham
Staffordshire University
Swansea University
Teesside University
The Glasgow School of Art
The Open University
Ulster University
University of Leicester
University College London
University for the Creative Arts
University of Aberdeen
University of Bath
University of Bedfordshire
University of Birmingham

University of Bolton
University of Bristol
University of Cambridge
University of Chester
University of Chichester
University of Cumbria
University of Dundee
University of East Anglia
University of East London
University of Edinburgh
University of Essex
University of Glasgow
University of Gloucestershire
University of Huddersfield
University of Hull
University of Kent
University of Lancaster
University of Leeds
University of Leicester
University of Lincoln
University of Liverpool
University of Manchester
University of Northampton
University of Northumbria
University of Nottingham
University of Oxford
University of Reading
University of Roehampton
University of Salford
University of Sheffield
University of Southampton
University of St Andrews
University of Strathclyde
University of Sunderland
University of Surrey

University of Sussex
University of the Arts London
University of the West of England
University of Warwick
University of Westminster
University of Worcester
University of York
York St John University
Overseas Institutions
Budapest University of Technology and Economics
University of California/ California Digital Library
Escola Superior de Saúde de Viseu (Portugal)
Izmir Institute of Technology (Turkey)
Kocaeli Üniversitesi (Turkey)
University of Sydney, NSW, Australia