



Policies and Procedures Adopted by Universities in Implementing RCUK Open Access Requirements

Research Information Network CIC

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Summary and Recommendations

1. This report reflects developments in the university sector following the introduction of new RCUK policies on open access. Those policies require that any articles and conference proceedings which arise from work funded by one of the Research Councils and are submitted for publication from 1 April 2013 should be published on open access terms. Universities have moved rapidly to set up policies and procedures to comply with RCUK requirements, and what is reported on here is changing fast. Nevertheless, we hope that our findings and recommendations point to some useful lessons for the sector as a whole.
2. UK universities faced – and continue to face - a number of challenges in responding to the new open access (OA) policies first announced by RCUK in July 2012. They start from very different positions in addressing these challenges; but all had to develop and implement new policies, procedures and systems in a relatively short period of time. This report describes what universities have done, the issues and problems they have faced, and how they have sought to address them. The picture will almost certainly change in the next year or so, as universities gain more experience, and more data on which to ground their policies and procedures.
3. In providing examples of how different universities have approached the challenges presented to them, the report does not seek to recommend a single course of good practice. The differing characteristics of universities are too various for that, and policies, procedures, and systems are too immature. But it is hoped that the experiences presented here will provide valuable pointers to further action for the benefit of individual universities, RCUK, and the sector as a whole.
4. Much of the value of the report lies in the detail. This summary presents key findings across each of the key headings in the main report, in abbreviated form, with cross-references to the more detailed discussion in the relevant paragraphs of the main report. Where appropriate, these findings are accompanied by brief recommendations, the background to which is to be found in the main report.

Preparatory work

5. The plans presented to RCUK by the 30 universities awarded grants to facilitate the transition to OA changed significantly after they were submitted. The funds were used for purposes including payment of APCs, development of repositories, and advocacy campaigns. Universities struggled to spend all the funds by 31 March 2013. It is not clear that the 30 universities were better prepared for the implementation of RCUK policies than those which did not receive this funding (paragraphs 13-17).

Overall policy responses

6. Universities have established high-level steering committees to develop and oversee policies. But they lack reliable or comprehensive information on key issues which give rise to financial and other uncertainties. Hence universities have tended to establish loose policy frameworks which will require further development in the light of experience. And most have sought to ensure that researchers themselves retain responsibility for decisions on where to publish. (paragraphs 18-22). **Recommendation.** *Universities should review their policies in the light of experience over the coming year, and as they gather more data about the about patterns of publication and demand for APCs.*

Funding and the allocation of block grant

7. With one exception, all the universities we have examined are managing the RCUK block grant as a single pot, administered centrally on a first-come, first-served basis. Only a minority have as yet sought to implement any element of targeting to specific groups. Most have indicated that they will review these decisions once they have more information on the pattern of demand; and one university suggested that the review would be made easier if RCUK were to provide information about the proportions attributable to each Council in the calculation of block grant (paragraphs 23-26). **Recommendation.** *RCUK should consider providing more information about the basis of its calculation of block grant.*
8. A few universities already had central funds to meet the costs of APCs; but with some exceptions, those that did not have such funds have decided for the present not to add resources to the funds supplied by RCUK and the Wellcome Trust. Such decisions have been taken on grounds of the cost of a potentially open-ended commitment, and are often associated with a stated preference for Green OA (paragraphs 28-28).

Administrative and payment processes

9. Lead responsibility for administering the payment of APCs from RCUK block grant has in most universities been given to libraries, working in co-operation with research offices or their equivalent. Lead responsibility has been given to research offices in a minority of universities. Co-operation between these two parts of the central university has been a welcome by-product of RCUK's policy (paragraphs 29-31).
10. Most universities have decided to initiate the process for the payment of APCs at the point when an article is accepted for publication, using a standard form submitted by the author, and simple administrative checks on eligibility. In a small number of universities, the process is initiated when an article is submitted for publication, mainly in order to keep a check on potential financial commitments. Only a minority of universities require authorisation from a senior academic before a request for payment of an APC can be accepted. (paragraphs 32-37).

11. The use of purchase orders is rare, but most universities require invoices from publishers. Only a few universities indicate that they allow the use of university-issued credit/debit cards to pay APCs (a procedure preferred by most publishers), or the reimbursement of payments made on personal cards (paragraphs 38-39).
12. Establishing a tight link between the timing of payment and publication on OA terms raises complex issues for both universities and publishers. Possible solutions include the use of intermediaries and of membership schemes and deposit accounts in order to aggregate payments; but there are complications associated with both mechanisms (paragraphs 40-44). **Recommendation.** *Universities and publishers should establish a collective mechanism to consider how they might resolve the tension between their respective desires on the relationship between payment and publication on agreed terms.*

Repositories

13. All the universities we examined are introducing measures to encourage - or in some cases require - researchers to deposit copies of their articles in the institutional repository. A significant number of universities have introduced policies which explicitly seek to promote Green as the preferred route to OA. Others are neutral as between Green and Gold, since they do not wish to influence how researchers publish their work; and only a minority explicitly favour Gold OA (paragraphs 48-51).
14. Many universities are seeking to facilitate deposit in their repositories, to develop closer links between their CRISs and the repository, and to facilitate the import of metadata and full text from other systems and repositories. There is less interest at present in exporting metadata and full text to other repositories, or systems to ensure that articles are deposited in Research Catalogue (for ESRC) and PMC (for MRC). Many universities express the hope, however, that automatic syndication to other repositories is not too far away (paragraphs 52-55). **Recommendation.** *The work of JISC and others to develop an interoperable repository infrastructure should be supported and pursued vigorously; and RCUK should work in concert with the Funding Councils to ensure that their requirements and expectations relating to repositories are developed in tandem.*

Copyright and licensing

15. Although most universities provide information on their websites about copyright and licensing, few have policies on these issues beyond seeking compliance with RCUK requirements. A number of our interviewees said that CC-BY licences were unpopular with their researchers, especially but not solely in the humanities and social sciences. (paragraphs 56-57).

Compliance and non-compliance

16. In some universities, if a researcher plans to publish in a journal that does not comply with RCUK policies the matter will be referred to a senior academic manager; but

there is little evidence as to how such policies are working in practice. But in checking on journals' compliance, a number of universities (as well as publishers) have expressed reservations about the accuracy and comprehensiveness at present of the SHERPA-FACT service, with the consequent need for detailed checks on journal websites (paragraphs 58-61). **Recommendation.** *RCUK and JISC should liaise urgently with universities and publishers to find ways to deliver a sustainable service that provides relevant information about journal policies that is, to agreed standards, accurate, comprehensive, and up-to-date. The service should also provide an API so that the data can be incorporated readily into universities' own systems.*

17. Some universities have also noted the need to check that articles for which an APC is paid are in fact published in fully-compliant form, with a CC-BY licence (paragraphs 63-65). But many more foresee difficulties in checking on and ensuring compliance for articles where no APC is paid, since there may be no natural point of interaction between authors and administrators before publication. The absence of standard practice in many disciplines as to any statement on how underlying data can be accessed makes it difficult for universities to provide guidance to researchers (paragraphs 66-67). **Recommendation.** *RCUK should seek to review the development of practice in this area, and then provide further guidance to researchers and universities.*
18. The procedures for post-publication checks on compliance where an APC has been paid are likely to remain time-consuming for the foreseeable future. But compliance checks when no APC has been paid are more complex, and few universities believe they will be able to check all publications. Few universities have yet thought through what action they will take if their post-publication checks reveal some aspect of non-compliance (paragraphs 68-70). **Recommendation.** *Universities should review, in the light of experience in 2013-14, their procedures for post-publication checks on compliance, and the action they will take in cases where non-compliance is revealed.*

Page and colour charges

19. Universities lack solid information on the pattern and scale of page and colour charges. Some have accepted that such charges should be met from the RCUK block grant; others have decided that departments or teams should continue to meet such charges from within other resources available to them. Many researchers and administrators are unaware that colour charge often can be avoided if they accept that the print (but not the online) version of the article will appear in black and white (paragraphs 71-76). **Recommendation.** *Universities should consider how best to gather more solid information on the scale and incidence of page and colour charges; and advise researchers as to how they can often be avoided.*

Collaborative publications

20. Universities are taking a flexible approach to the payment of APCs for articles published in collaboration with researchers from other institutions, in the UK or overseas; but they are not keen to adopt split payments. Some will accept authors' judgement as to whether it is appropriate for the university to pay the full APC; and most will pay when the home researcher is the corresponding or lead author, or the principal investigator. For publications in collaboration with UK institutions, universities are adopting a 'knock-for-knock' approach; where the collaboration is with an overseas institution, most universities are prepared to pay the APC even where their home researcher is not the lead author (paragraphs 77-80).
21. The flexibility being shown by universities is welcome, and perhaps inevitable in current circumstances. But there is scope for tension between institutions, with different criteria being adopted, and different disciplinary cultures (paragraphs 81-82). **Recommendation.** *Universities should gather information on the pattern of collaborative publications in the current year, and the extent to which they are paying APCs for them. The possibility of developing clearer guidelines, and dealing with the issue explicitly in future collaboration agreements, should then be reviewed by universities and RCUK collectively.*

Communications and advocacy

22. Most universities have launched communications and advocacy campaigns to inform their researchers about the new RCUK policies and their implications, through meetings and workshops, newsletters and guides, and updated pages on their websites and intranets. In developing written materials, there has been much duplication of effort, and there is scope for the co-ordinated and shared approaches. Universities have sought to mitigate the circulation of myths and misunderstandings; but few are confident that their researchers are well-informed at present about RCUK (and Funding Council) policies. Hence most are planning to continue their campaigns at least until the end of 2013 (paragraphs 83-89). **Recommendation.** *RCUK should seek to collaborate with universities and publishers in developing common templates for communications and advocacy material.*

Monitoring and reporting

23. In order to develop their policies and procedures further, universities are gathering evidence about patterns of publication, adoption of different routes to OA, expenditure with different publishers, licensing and so on. But universities are not confident that they will be able to monitor and report accurately on levels of compliance with RCUK policies where no APC has been paid. The new RCUK policies have highlighted the need for more effective flows of information between different systems within universities; but also between them and the systems of publishers, RCUK and other funders. The development of metadata standards, and promoting the up-take of systems such as ORCID, are key to better interoperability. In the meantime,

universities have some strong reservations about the effectiveness of RCUK's Research Outcomes System (ROS) and Research Fish (paragraphs 90-97). **Recommendation.** *Universities, publishers and RCUK should work together to develop systems and procedures to ensure better interoperability and flows of information between their respective systems, and consider the case for a national campaign to promote registration with ORCID. They should also consider the feasibility of harvesting comprehensive and accurate metadata from publishers.*

Nature and scope of this study

1. This study has been undertaken by the Research Information Network on behalf of Research Councils UK, to examine the policies and procedures adopted by universities in response to the new open access (OA) policies and requirements set by RCUK with effect from 1 April 2013. The aim of the study is useful to gather evidence from across the HE sector as a basis for sharing examples of good practice, and for developing guidance on specific issues where possible.

Methodology

2. We have gathered and analysed documentation from 33 universities, with our sample weighted towards those research-intensive institutions that are receiving significant amounts in block grant from RCUK, but also including a number of smaller and less-research-intensive institutions. We conducted intensive interviews with the relevant members of staff in 18 universities, using a template that was developed in consultation with the project sponsors. Most of the interviews were conducted by telephone, but some were conducted on site. We made clear that the information provide in interviews would be treated in confidence, and that we would not identify in our report to RCUK any individual university, other than in respect to information that is freely available in the public domain. Interviewees were thus encouraged to talk candidly about issues that had arisen in the university, and how they had tackled them. In order to gain a different perspective, we also interviewed two publishers about their experience of the systems and procedures being adopted by universities.
3. There were two further elements in our methodology. First, as an important background to the policies and procedures adopted by universities, we analysed the plans for the use of the pump-priming funding allocated to thirty of them in September 2012. Second, we organised a workshop of representatives of universities, funders and publishers to test in a common setting the issues that were arising in universities, how they were being addressed, and their understanding of the new policies and their implications.
4. In this report, we identify the policies and procedures of individual universities only so far as they are publicly available on their websites. Information that was given to us orally in interviews has been treated in confidence, and is therefore not attributed to individual institutions. Lists of the institutions with which we conducted interviews and of those for which we undertook analysis of publicly-available documentation are provided in Annex A.

Background

5. Following the publication of the Finch Report and RCUK's announcement of new policies relating to open access in the summer of 2012, universities began to consider – with varying speed and levels of commitment - the policies, procedures and systems

they needed to put in place to meet the requirements of the new policies in general, and to administer the funds allocated to them for the payment of APCs in particular. Universities are still at different stages in their responses to the new RCUK policies; and there is widespread acceptance that the initial sets of arrangements in individual universities have many rough edges. Most universities envisage significant further development and refinements before they are satisfied that they are responding appropriately, meeting the needs of their staff as well as RCUK's requirements.

6. The precise configuration of policies, procedures and systems will continue to vary according to the individual circumstances of each university; but many of the issues they are seeking to address are common:
 - a. developing effective, efficient and user-friendly systems and processes to guide researchers through what they need to do to comply with the new policies
 - b. how to allocate funds fairly across the different parts of the university, and to individuals and groups within them
 - c. the extent to which, if at all, they should make use of publishers' membership schemes and/or deposit accounts
 - d. budgeting and forecasting likely levels of expenditure on APCs, including the potential financial commitments that arise whenever a paper is submitted to an open access or hybrid journal
 - e. how intermediaries might help in consolidating payments to a range of publishers
 - f. how to meet the new requirements when articles arise from work undertaken in collaboration with other institutions, in the UK and overseas
 - g. how to promote and monitor compliance both in individual cases and across the university, both for internal purposes and in order to report to RCUK.

7. Universities started from very different positions in beginning to address these kinds of issues. Some universities had already adopted some form of policy requirement that researchers should make their publications accessible on OA terms¹, although the nature and scope of those policies, and the levels of compliance, vary hugely. In other universities, such as Kent, Lancaster, and Warwick, the Finch Report, the new RCUK policies, and the prospect of requirements from the Funding Councils relating to the REF planned for 2020, have provided a stimulus to the development of new institutional policies. Some universities have approached the task of implementing

¹ The ROARMAP service (<http://roarmap.eprints.org/275/>) lists more than thirty UK universities with an institutional mandate; but in some cases (eg the University of Lincoln) it is not clear what the policy actually is. No text is available on the Lincoln website.

and complying with RCUK policies as a challenge to engineer cultural change in their institutions. But in many cases, new arrangements to meet RCUK requirements have been developed without, as yet, any broader institutional framework of policies on publications and OA.

8. Just over thirty universities² have since 2006 had an institutional fund for the payment of APCs in the form of a block grant from the Wellcome Trust, though the arrangements for administering that grant vary considerably. A much smaller number of universities, including Birmingham, Brunel, Imperial, Newcastle and Nottingham, had already by 2012 established institutional funds from their own resources, to meet the demand from researchers for the payment of APCs where no other funds were available. But for all universities, the new RCUK policies involved setting up arrangements for payment of APCs, as well as monitoring compliance with funders' policies, on a different scale from anything they had envisaged hitherto.
9. Setting up the new policies, procedures and systems, and consulting and communicating about them, has presented a big challenge to universities. For thirty research-intensive universities, help came in September 2012 when they were notified that they would share a grant of £10m to assist in their transition to OA. Some universities spent most if not all of their share of this money on APCs for articles accepted for publication in the months leading up to April 2013, on 'retrospective' APCs to render OA articles already published in 2012, or on publishers' membership schemes which provide a discount on APCs to be paid in the future. Others allocated funds to policy and systems development, including the hire of temporary staff, in an attempt to make themselves ready for the implementation of the new RCUK policies.
10. But for all universities, time was short, and that problem was exacerbated by uncertainties and continuing discussions as to the precise nature and scope of RCUK's requirements, which underwent significant change in the weeks leading up to the stated implementation date of 1 April. The discussions in the early part of 2013 were welcome and helped to resolve a number of difficulties that had been identified; and the greater flexibility that is allowed for in the final version of the policy and guidance has been much appreciated by universities in enabling them to avoid problems that might otherwise have arisen. But the delay until 8 April in publishing the final version of the policy itself and the associated guidance – which varied in significant respects even from the version published for consultation in early March – brought with it some temporary difficulties for universities in finalising their policies and in communications with their staff. That is one reason why many universities are not as far on in implementing their policies and procedures as they would like to be.

² The institutions are listed at <http://www.wellcome.ac.uk/About-us/Policy/Spotlight-issues/Open-access/Guides/WTX036803.htm>

Pump-priming and preparatory work

11. The thirty universities that received a share of the pump-priming funds were required to submit to RCUK 'a clear plan that sets out how your institution will use the money to support open access to research publications'. The short deadline for the submission of these plans meant that they were produced in a hurry, and they vary hugely in the amount of detail they provide. It is also now clear that the plans were modified significantly in the succeeding months.
12. Nevertheless, whether or not in response to the funding and the requirement to produce a plan, the thirty universities already by November 2012 setting up high-level committees or steering groups – typically chaired by the PVC Research or equivalent – to oversee the development of policy and procedures. In most cases also a working group was planned, to oversee the development and implementation of systems and procedures; and in many cases, there were plans to appoint additional temporary staff to do the work.
13. The preparatory work identified at this stage included identifying PIs and holders of Research Council grants; examining patterns of publication; developing or refining research information workflows; and developing criteria for decisions on the allocation or distribution of funds. In the event, work in all these areas proved in most universities more complex than had originally been envisaged. But in addition to work of this kind, priorities for the use of the pump-priming funds covered three main areas.
14. First, a majority of the thirty identified the payment of APCs for existing or forthcoming articles – often with a view to those likely to be submitted to the REF – as a priority. An offer made through JISC from Elsevier for retrospectively converting articles published in 2012 to open access, in return for a discounted APC, was taken up by some universities. Rather more took the opportunity to put funds into deposit accounts or publishers' membership schemes, in order to benefit for the future from the discounts on offer. But overall many universities found themselves in the end spending significantly less of the pump-priming grant on APCs than they had anticipated.
15. Second, a majority of the thirty indicated that they would invest some of the funds in developing their repositories and/or their research information systems, with measures to simplify and encourage deposit. Even at this stage, some universities indicated that the repository would be at the heart of their policies; and in some cases that their preference was to promote Green OA.
16. Third, nearly all of the thirty acknowledged the need for a vigorous communications and advocacy campaign, along with the development of training materials. As we note

later in this report, however, universities faced considerable challenges in putting their communications plans into effect.

17. Overall, it is not easy as yet to reach a judgement at this stage as to how effectively the funds provided to the thirty universities were spent; there were challenges for all universities in planning expenditure in haste, and final reports on what was achieved have in many cases not yet been written. Hence it is not clear whether the thirty universities were better prepared in the development of their policies and procedures than those who did not receive any pump-priming funds.

Universities' policy response to RCUK requirements

18. In all the universities we have examined, some kind of steering group or committee, usually chaired by the PVC Research or equivalent, has been established to oversee the development and implementation of institutional policies and procedures in response to the new RCUK policies. Membership of the group typically involves senior academics, along with relevant staff from the Library, Research Office, and Finance Office. Usually there is also a formal reporting line to the Research Committee; but below the steering group an executive project team or working group has often been established to ensure that the necessary work is done. In the few cases where structures of this kind have not been established, there have been difficulties and delays in establishing effective arrangements.
19. A key challenge facing universities in developing new arrangements has been a range of uncertainties and lack of solid information on critically-important issues.
 - a. Few universities have solid data on the numbers of publications that either acknowledge project funding from one of the Research Councils, or are in fact related to a project so funded. Even where they have implemented one of the research information management systems (CRISs) such as Symplectic or PURE, few universities are confident that they are capturing all relevant publications; and even fewer that they can identify all those that are linked to Research Council funding.
 - b. The numbers of journals which are providing, or will provide for the future, options for publishing in compliance with RCUK policies – whether Gold or Green - remains uncertain; and so do the ways in which researchers in different disciplines and different parts of the university will respond to those options, and to RCUK policy in general.
 - c. There are uncertainties about the average level of APCs (again with possibilities of variation in different disciplines) , as publishers respond to RCUK policies by providing more options for publication in OA and hybrid journals.

- d. Universities lack systematic information about current levels of expenditure on page charges and colour charges which have hitherto been met from project grants but will henceforth have to be met from the RCUK block grant or other sources.
 - e. The large proportion of articles that are produced in collaboration with researchers from other institutions in the UK and overseas brings with it further uncertainties as to the numbers of articles for which individual universities will be asked to pay an APC.
20. For all these reasons universities cannot be sure whether the block grant provided by RCUK will be sufficient to meet the target levels of compliance (45% in 2013-14 and 53% in 2014-15) that have been set by RCUK; or whether there is likely to be a surplus at the end of the year. The relaxations and greater flexibility introduced into RCUK's policies in March and April 2013 have been much welcomed; but they have in some ways added to the uncertainties for those planning how best to develop their institutional policies and procedures. And in the current year the uncertainties are exacerbated further by the unknown speed of the adoption of the new policies as articles submitted to journals after 1 April are eventually accepted (or not) for publication³.
21. In such a context, it is not surprising that universities have tended to establish for the present a relatively loose policy framework, along with procedures and systems that will need further development in the light of experience. For universities are aware that they are 'flying in the dark' or 'making it up as we go along'; that they will need to monitor take-up and the impact of the arrangements they have currently in place; and that those arrangements will almost certainly have to be modified as more information is gathered and analysed, and lessons learned. In one or two cases, as with Queen Mary, University of London, the arrangements are explicitly described as interim⁴.
22. All the universities we spoke to also laid great stress on sustaining good relations with their researchers: making systems and processes as user-friendly as possible; and ensuring that researchers themselves retain responsibility for decisions on where to publish their articles. While much is being done to provide advice and guidance on the details of RCUK policies, the compliance or otherwise of journals and so on, universities are very cautious about giving any appearance of interference at a central level in decision-making on such a sensitive subject. As the University of Exeter puts it on its website, 'You decide where you want to publish – the University is committed

³ It is important to note that RCUK policies apply to articles *submitted* for publication from 1 April 2013.

⁴ See

http://www.library.qmul.ac.uk/sites/www.library.qmul.ac.uk/files/users/user15/Interim_procedures_RCUK_openaccess.pdf

to academic freedom of choice⁵. Only a minority of universities suggest that if a researcher wishes to publish in a journal that does not comply with RCUK requirements, they should reconsider their choice. And at least one university has expressed unease at the wording used on the SHERPA FACT website, which it believes to imply a threat to academic freedom.

Allocation of RCUK block grant

23. With one exception, all the universities we have examined have decided, at least initially, to manage the RCUK block grant (alongside any block grant they receive from the Wellcome Trust) as a single pot, administered centrally, rather than allocating it via some formula to different Colleges, Schools, Faculties or Departments. Universities are aware of the importance – as set out in the RCUK policy – of seeking to ensure an equitable distribution of funds across different disciplines and subjects, or parts of the University. Some of them have publicised within the University an ‘indicative’ allocation, calculated in accordance with formulae such as numbers and value of Research Council awards, and against which they will monitor actual expenditure. Others initially contemplated a devolved system, and even stated in their plans for the use of the pump-priming funds that they would operate in that way; but then drew back in the face of administrative complexity, and the difficulties in devising an agreed allocation formula.
24. The most telling arguments in favour of a single central fund are the need to gather definitive information on the patterns of RCUK-related publications across the university, and to secure administrative simplicity and consistency. As more information is gathered, and administrative systems become more efficient, effective and trusted, many universities will consider again the possibility of establishing more devolved systems. In this context, one university suggested that it would be helpful if RCUK were to make available the data on which the allocation of block grant to Universities was based, broken down by Council. The University in question has its own analysis, but has noted variations according to the year(s) selected, whether the analysis is based on grants awarded or moneys actually received, when years begin and end, and so on.
25. For similar reasons, most but not all universities have decided to authorise expenditure on APCs on a first-come, first-served basis, with no attempt to prioritise defined groups of researchers either by seniority (or lack of) or by unit within the University. Again, it is envisaged that this decision may be revisited in the light of experience: all universities are sensitive to issues of equity, and plan to monitor the distribution of funds across different groups. Some universities are already considering the possibility that they may introduce an element of targeting for early-

⁵ <http://as.exeter.ac.uk/library/resources/openaccess/howdoesopenaccessaffectme/top10/>

career researchers, or for researchers in the humanities and social sciences who might not otherwise apply for APCs to make their publications open access.

26. For those few universities that have already established some elements of prioritisation within their policies, these relate to articles published in identified high-status journals, or in fully-OA journals, or journals where the embargo period for Green OA is longer than allowed under the terms of the RCUK policy. It is not yet clear whether these and other priorities might emerge more generally as policies develop further.

Additional university funds

27. A relatively small number of universities have already established a fund from within their existing resources to meet the costs of APCs where they are requested; Nottingham's is the longest-lived and largest by some degree⁶. A few universities are considering the establishment of such a fund – most, such as Kent on a small scale, but in the case of UCL very substantial - in the light of the RCUK policies and other developments including the prospect of an OA requirement of some kind for the REF planned for 2020. Those with existing funds differ in their current view as to whether they can or should be used to pay APCs for publications arising from Research Council-funded work: some are planning to allow it, others, such as Lancaster⁷, indicate that their priority will be publications for work *not* funded by a Research Council.
28. Many universities, however, have decided that they will not provide any additional funds to put alongside those provided by RCUK and the Wellcome Trust. Such decisions have been taken on grounds of the cost of a potentially open-ended commitment, and are generally associated with a stated preference for Green OA, again on grounds of cost. As to what will be done if the RCUK block grant is all spent before the end of the year, such universities state that their policy will be to revert to Green OA as a default; but few are clear about what they will do if they are faced with a demand for payment of an APC for an article accepted by an OA-only journal which levies APCs.

Administrative responsibilities

29. In most universities, the lead in developing new procedures and systems has been taken by the Library, working in concert with staff from the Research Office or equivalent (with the latter often seen as having a particular role with regard to the monitoring of compliance). The extent to which the Finance Office has been involved

⁶ For an analysis of the use of the Nottingham fund, see Pinfield S, and Middleton C, Open Access Open access central funds in UK universities, *Learned Publishing, Volume 25, Number 2, April 2012*, pp. 107-116(10)

⁷ <http://lancaster.libguides.com/loader.php?type=d&id=702037>

varies considerably across the sector: in some cases finance staff have been actively involved in working groups, but in other universities their role seems to have been peripheral.

30. A lead role for libraries reflects their long experience in dealing with publishers and in running institutional repositories; and also in many cases their experience in handling block grant for the payment of APCs from the Wellcome Trust, or established institutional funds for the same purpose. Some universities have also seen merit in bringing together responsibilities for monitoring expenditure on APCs and on journal subscriptions; and exploring the potential for off-setting arrangements in negotiations with specific publishers.
31. In a significant minority of universities, on the other hand, the lead has been taken by the Research Office, reflecting their pivotal role in the administration of research grants, and in matters relating to research policy and strategy. Again, however, a lead for the Research Office or equivalent involves again working in partnership with the Library. Almost all our interviewees, indeed, spoke of how the need to develop and implement new arrangements in response to the RCUK policies has strengthened co-operation between the Research Office and the Library; and in some cases the partnership is explicitly seen as one of equals. On the more negative side, several of our interviewees expressed concern about the additional burdens placed on them and their staff; and a lack of commitment from senior managers in the University to authorise the recruitment of additional staff on a permanent basis, even where temporary staff had been employed, with funding from the pump-priming grant awarded to thirty universities in 2012.

Payment processes

32. The key imperative for most universities in developing their systems and processes for the payment of APCs is to keep them as simple and user-friendly as possible. In most universities the process is initiated by researchers' submitting a simple online application form that provides, in addition to name and department, basic information about the relevant research grant, the article and the journal (in some cases also the licence to be used), any other authors, and the amount of the APC⁸. A few universities have adopted the approach of seeking a simple email from authors, though it is not clear how they plan to avoid the likelihood of having to seek missing information which is more likely to be provided in standard format via a form.

⁸ For an example of an online form, see <https://www.openaccess.cam.ac.uk/>. For an example of a form in Word format see http://www.brunel.ac.uk/_data/assets/word_doc/0003/299343/BrunelOpenAccessPublishingFundApplicationForm.docx

33. In some universities, the application form can be submitted only by an authorised person such as a principal investigator or grant-holder (who may submit on behalf of others) or requires authorisation by a head of department (particularly but not only in those cases where priority lists of journals have been identified). More commonly, however, the form or email is submitted direct to the Library or Research Office, which itself undertakes basic eligibility checks (whether the applicant falls within scope for the use of the RCUK block grant, and whether the journal is compliant), and subject to those checks authorises payment. But all stress that other than in relation to such straightforward checks, it is not for the Library or the Research Office to exercise academic judgements as to whether individual authors are publishing in appropriate journals, and thus whether to release funds in particular cases.
34. For this initial year in particular, there is the possibility that provision for the payment of APCs has already been included in a research grant, but in most universities there is no central recording of the existence of such provision. In order to limit the demands placed on the RCUK block grant, some universities, though not all, are seeking an assurance from applicants that they have no such funding available to them in a relevant research grant; but few if any have put any system in place to check on the validity of such assurances, on the grounds that such a system would be administratively burdensome. This has implications, however, for the accuracy of monitoring and reporting, as we discuss below.
35. In most universities, processes relating to payments are initiated once an article is accepted for publication. This has the merit of keeping systems and record-keeping relatively simple.
36. But a significant minority of universities, such as Leicester⁹, Reading¹⁰ and York¹¹, have adopted a system under which the process is initiated at the point when articles are *submitted* for publication. There are four related reasons for adopting such an approach: to sustain an early dialogue with authors, and to get them thinking about their publications in the light of RCUK's requirements; to gain information about intended, as well as actual, publications, and publication patterns; to enable the University to provide administrative support to researchers throughout the publication process; and to enable the University to monitor potential expenditure. Controls on expenditure can then be instituted with the help of simple spreadsheets or databases, with checks on when or if papers are finally accepted for publication. If a paper is rejected, the funds committed can be reintroduced into the central pot; and some universities envisage a waiting list of authors who want to publish on Gold OA terms.

⁹ <http://www2.le.ac.uk/library/find/lra/openaccess/rcuk>

¹⁰ http://www.reading.ac.uk/web/FILES/imps/Instructions_for_OA_form.pdf

¹¹ <http://www.york.ac.uk/library/informationfor/researchers/openaccess/guide/>

37. The adoption of such systems is understandable in the face of uncertainty as to likely levels of expenditure; but their success depends on regular dialogue with researchers, and the risk is that administration is more complex than it might in the end need to be. Particular difficulties can arise in achieving accurate reconciliation between library spreadsheets and finance office systems which may operate on different bases.
38. Once a payment has been authorised in principle, processes differ in a number of respects. Some finance departments insist on the raising of a purchase order, while other universities have accepted the view that an application form accompanied by evidence of the submission or acceptance of the article, and the level of the APC, can in effect take the place of a purchase order. Most universities do insist, however, on the receipt of an invoice from the publisher, except in cases (see below) where the university has already paid for the publication of a number of articles, through publishers' membership or advanced payment schemes. In some cases, however, universities will allow authors to pay by credit or debit card, and to reclaim funds from the block grant.
39. A few universities also have a preference for payment to be made through centrally-held University business cards, in order to get payments to publishers as quickly as possible, even though internal processes can then prove quite complex. Speed and the need for a tight link between payment and publication are related issues. Delays can be introduced both by universities and by publishers. In the latter case this may mean that publication and the provision of free access to the article takes some time after payment has been received, and that the benefits of OA are thus reduced.
40. At least one university has taken the decision not to authorise payment of an invoice until it has evidence (provided by the publisher in the form of a DOI) that the article has been, or will very shortly be, published. There is some potential for conflict here, since publishers can face the mirror image of universities' difficulties: that they publish articles on OA terms for which they do not in fact receive payment. They then have to take down the article or rescind its open access status; and/or write off the bad debt. Both universities and publishers have an interest –from their different perspectives - in securing a water-tight relationship between payment of the APC and publication of the article on OA terms. But how this might best be achieved in all cases is not yet clear.
41. A possible solution may lie in the use of intermediaries to consolidate payments between several universities and publishers, the subject of an RIN report in 2012¹². JISC and Open Access Key (OAK) announced in January 2012 that they were to collaborate in a pilot project, Jisc APC, and to test its role in managing and processing

¹² Research Information Network, *The Potential Role for Intermediaries in Managing the Payment of Open Access Article Processing Charges (APCs)*, Open Access Implementation Group, 2012.

APCs¹³; and many universities are hopeful that this may reduce potential administrative burdens and complexity. A few universities had already signed agreements with OAK, but some expressed reservations about the service and the structure of the pilot, the start of which has been delayed. Hence we have not been able to examine universities' take-up or their experience in using the system. It is important also to note that other intermediaries, such as the Copyright Clearance Center (working in collaboration with Aries Systems)¹⁴ and EBSCO are also developing systems to manage and process APCs.

42. A second kind of approach is for universities to take up the membership and advance payment schemes that have been established by a number of publishers. Such schemes offer discounts of up to 25% on APCs, as well as bringing administrative savings; and several universities have signed up to them for those reasons, or simply to experiment. For these reasons, many universities – especially those such as Birmingham, Bristol, Manchester and York that benefited from the transition funding allocated in September 2012 - have subscribed to membership schemes of this kind. The libraries we spoke to were particularly keen on the Royal Society of Chemistry's (RSC's) Gold for Gold initiative, under which universities that subscribe to a package including all RSC online journal, database and magazine content receive vouchers for free publication of OA articles without paying the normal APC.
43. The reservations that some other universities have expressed relate to the risks of a perceived preference for certain publishers and journals, and thus of a restriction on researchers' ability to choose where to publish; of falling into a trap – as they see it – similar to that represented by the big deals for subscriptions; and of lack of transparency as to costs.
44. Nevertheless, it is clear that some universities have decided to adopt a strategy of reducing administrative burdens, as well as reducing the costs of APCs, by subscribing to membership schemes or pre-payment accounts with those publishers that are most popular with their authors; while hoping to use intermediaries to deal with the rest.

Data capture

45. Universities envisage that it is a relatively simple matter to capture relevant information about articles for which an APC is paid: there is a natural point of contact with authors when they seek funds to meet the APC. Universities' main concern with regard to such articles is the duplication of effort involved when they seek information

¹³ <http://www.jisc.ac.uk/news/jisc-collections-and-open-access-key-to-collaborate-on-uk-gold-oa-article-payments-pilot-23-jan>

¹⁴ See press statement at http://www.copyright.com/content/cc3/en/toolbar/aboutUs/newsRoom/pressReleases/press_2013/press-release-13-06-03.html.

from researchers that they have already provided to publishers, funders, and other parts of the university.

46. The position with articles for which an APC is *not* paid is much more complex, mainly because there is not the same natural point of contact with the researcher/author. Many universities have introduced current research information systems (CRISs) or are planning to do so; and those that have done so already are planning to develop them further. But even where such systems have been established – either in-house systems or commercial products such as Symplectic Elements¹⁵ or PURE¹⁶ - most universities retain concerns about the problems in achieving join-up between the information they hold on research grants and on publications; more generally about overlaps, and the difficulties in establishing effective interfaces and interoperability between their various systems; and critically, about their ability to gather comprehensive and consistent data about all the publications produced by their members of staff. A key concern is that they will not be able to capture information about *all* the publications that fall within the scope of the RCUK policies.
47. The FundRef¹⁷ service that was formally launched in May should provide some assistance both to universities and at a national level in addressing these problems; and some universities are also considering how to encourage or require their academic staff to register with ORCID, in order to help in providing a reliable link between data in different systems.

Repositories

48. Almost all universities now have repositories, and policies to encourage, or to require, researchers to deposit their publications. Even where mandates are in place, however, levels of enforcement and compliance tend to be low, although some imperatives have been built around the forthcoming REF. For some universities, the RCUK policies have acted as a stimulus to develop their own wider OA policies, requiring researchers to deposit the accepted version of their articles (or the final published version where that is possible) in the institutional repository, usually with some qualification such as ‘subject to publisher restrictions’. Access is then allowed in accordance with the terms of the embargo periods set by publishers, although universities differ in the extent to which they have automated that process.
49. All the universities we spoke to are introducing or implementing policies and procedures of this kind, and the policies on which the Funding Councils are currently consulting with regard to the REF are likely to stimulate more of them to do so. This suggests that the contents of institutional repositories may increase significantly in the

¹⁵ <http://www.symplectic.co.uk/>

¹⁶ <http://atira.dk/en/pure/>

¹⁷ <http://www.crossref.org/fundref/>

coming months and years. Some universities have introduced policies that explicitly favour – in contra–distinction to RCUK policy – deposit of peer-reviewed publications in repositories as the preferred route to open access. Universities as various as Aberdeen¹⁸, Cambridge¹⁹, Kent²⁰, Lancaster²¹ and Oxford²² are among several that have a stated policy of supporting Green open access as the institutional ‘cultural norm’ or as the preferred route to open access ‘for the foreseeable future’.

50. The factors underlying such policies are frequently related to concerns about the costs associated with Gold OA, particularly in a context where the block grant provided by RCUK is limited (see paragraphs 19-22 above) and where it is expected that OA requirements will be extended to all journal articles and similar publications submitted to the REF. And for some institutions there is also a concern that any funding provided to meet APCs results in a decrease in the funding to support research *per se*.
51. Other universities have adopted a policy approach with no stated preference for Green or Gold OA, often on the grounds that they do not want to influence where and how researchers publish their work: researchers themselves must decide. As the University of Exeter puts it, ‘The Green and Gold routes to Open Access compliance are equally valid and of equal scholarly value’²³. Such policies are often associated with statements to the effect that the University will meet the costs of APCs where funds are available to do so; but in that case, they nevertheless seek also to promote, or require, deposit in the institutional repository. Only a relatively small number of universities, such as Reading²⁴, have policies that prioritise Gold open access.
52. Policies and procedures to support or promote Green open access depend not least, of course, on researchers’ keeping the appropriate version of the article to deposit; and problems have also arisen in some universities when the author’s version of the article – even after acceptance, takes the form of multiple files (eg for illustrations etc within an article or where there are significant amounts of supplementary material).
53. The bigger problem, of course, is to persuade the majority of researchers that they should indeed deposit a version of their articles in a repository, and that it is in their interests to do so. An increasing number of universities are seeking to do this by making explicit links between deposit in the institutional repository and submissions to the forthcoming REF; and some are making clear that for the future all papers to be

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http://www.abdn.ac.uk/library/documents/Open_Access_Documents/Open_Access_Policy_Final_20130319.pdf

¹⁹ <https://www.openaccess.cam.ac.uk/about>

²⁰ <https://www.openaccess.cam.ac.uk/about>

²¹ <http://lancaster.libguides.com/content.php?pid=429121&sid=3509963#12608707>

²² <http://openaccess.ox.ac.uk/home-2/open-access-at-oxford/>

²³ <http://as.exeter.ac.uk/library/resources/openaccess/howdoesopenaccessaffectme/top10/>

²⁴ http://www.reading.ac.uk/web/FILES/imps/OA_policy_v2_3_with_guidancev4.pdf

submitted to the REF must be deposited in the repository. The embargo periods associated with university policies of this kind are not always congruent with RCUK requirements, however; in Exeter's case, for example, the university policy promoting Green as the 'default route to open access' includes provision for embargo periods of up to 36 months in order, so it is stated, to safeguard the positions of learned societies and humanities research²⁵.

54. A key imperative for many universities is to make the processes of deposit easier than they often are at present. Related to that is the encouragement offered to researchers by systems that ensure that when articles are deposited in the institutional repository, metadata and links to the full text are fed directly into researchers' individual web pages. More generally, many universities are seeking to develop closer links between their research information systems and their repositories. In some universities, systems such as PURE and Symplectic are being developed as the route to deposit in the repository, though the relative novelty of those systems in some cases has brought difficulties in seeking to ensure that researchers make effective use of them, and nervousness about the results. But it is clear that as the deployment of CRIS tools becomes more mature, the relationships between them and repositories will grow closer; and some universities, such as Bristol and Edinburgh, are already implementing systems under which the CRIS essentially takes over the role of the repository; and others are planning to do so. Moves towards such integration will clearly be a significant feature in the plans that some universities are developing for further investment in their 'repository' infrastructure, particularly in the light of the role that repositories are likely to play in the Funding Councils' requirements for the REF.
55. Another feature will be systems to facilitate the import and export of both metadata and full text. Some universities, including Manchester, explicitly encourage researchers to deposit articles in subject-based repositories such as ArXiv and Europe PubMed Central; and several more are planning systems to facilitate the import of full text from other repositories, and bibliographic data from a range of other sources. And although there is less active interest at present in facilitating export of metadata and full text from institutional repositories to other repositories, many express the hope in the longer term (not too long) for an effective system to remove any requirement for deposit in more than one repository. In the meantime, universities are relying on researchers themselves, or their publishers, to meet funders' requirements for deposit in repositories other than their institutional repository (thus for ESRC and MRC their requirements to deposit articles in the Research Catalogue and PMC respectively).

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https://ore.exeter.ac.uk/repository/bitstream/handle/10036/4280/OA_RDM_Policy_Final.pdf?sequence=4

Copyright and licensing

56. Most universities now provide basic information via their websites on copyright and on the various creative commons licences. The quality of the information varies, but for many universities, such as Reading²⁶ and Warwick²⁷, it is detailed and well-structured. Many are also seeking to raise awareness of copyright issues in general, and some have dedicated copyright and IP officers who provide advice on these issues. But beyond any steps that they are taking to promote or ensure compliance with RCUK and Wellcome requirements (especially when an APC is paid), only a minority of universities have in place – or have plans to introduce – any wider policies on copyright and licensing. Rather, they see these as issues for decision by researchers themselves, who can seek advice as and when they see the need.
57. A number of our interviewees spoke of the unpopularity of CC-BY licences among researchers, especially but not only in the humanities and social sciences; and many spoke of the need for cultural change. One university told us, however, that it is considering the setting of a requirement for the use of CC-BY licences for all full-text versions of articles in its repository. But such a stance is exceptional; and only a minority of universities have policies or procedures in place, beyond generally low-level degrees of encouragement or advice (as for example at Warwick²⁸), to promote or require the use of licences to publish, as distinct from transfers of copyright to publishers. Again, this is widely seen as a matter for researchers themselves.

Compliance and non-compliance

58. The policies adopted by the majority of universities, as indicated earlier, start from the position that they do not wish to deter researchers from publishing in the journals that they believe to be most appropriate for a particular article. Such policies are accompanied in some cases, however, by varying degrees of encouragement or advice to promote compliance with RCUK, Wellcome and other funders' policies. Thus in some universities, if and when it were to become known that a researcher was planning to publish in a non-compliant journal, then the matter might be referred back to the head of department, faculty or school. At UCL, for instance, the stated policy is that if no academically-credible compliant journal is available, the College will support non-compliance in the interests of academic freedom and of ensuring that research is disseminated for maximum academic impact. The policy goes on to state that 'Head of Department sign-off will be required in such cases, generally on a case-by-case basis, although in particular cases Heads of Department may wish to establish agreements of

²⁶ <http://www.reading.ac.uk/library/contact/info-for/researchers/openaccess/lib-open-access-copyright.aspx>

²⁷ <http://www2.warwick.ac.uk/services/legalservices/staffinfo/copyright>

²⁸ See <http://www2.warwick.ac.uk/services/library/research/instrep/erepositories/faqs/#ipr>

broader scope, for instance where all the highest academic impact journals in a field offer no compliant route'.²⁹

59. The past three months, however, have been too short a period in which to develop a clear sense of how many such cases are arising, or how they are being dealt with; and some universities have acknowledged that policies and procedures in this area will need to be reviewed in the light of experience, not least on actual levels of compliance. But it is important to stress that for most universities – particularly the research-intensive ones – the key influence underlying policy is the principle of academic freedom.

Pre-publication checks

60. One frustration for universities has been the lack of a reliable and comprehensive source of information on whether or not individual journals do in fact offer compliant options to authors. It was intended that SHERPA-FACT – based on the long-established SHERPA-ROMEO service - should meet this need; and a beta version of the new service was launched in the first week of April. But both universities and publishers have expressed reservations about the comprehensiveness and accuracy of the service, especially when it comes to important details such as the versions of papers that can be deposited in different repositories. Moreover, the promised API has not yet been delivered, which makes it difficult for universities to integrate data from SHERPA-FACT fully into their own systems (though almost all universities direct researchers to the SHERPA-FACT service to check whether journals comply with RCUK policy). Some universities such as York³⁰ provide detailed guidance on understanding journals' policies, and on the use of the SHERPA-FACT service.
61. One of the complicating factors here has been that many journals have been changing their policies in response to RCUK's requirements; and they are continuing to do so, sometimes in response to individual approaches from authors themselves, or from library or research office staff. But in the absence of a comprehensive and trusted service, many universities' procedures involve for the present a time-consuming search and check on individual journal websites. This is far from ideal.
62. Aside from these complications, checking on and ensuring compliance in relation to individual researchers and articles is more straightforward for Gold than for Green publications, not least because there is a natural point of contact between researchers and administrators for the former, but not necessarily for the latter. Hence universities are having to rely on good communications in an attempt to ensure that researchers are aware of their obligations under RCUK's and other funders' policies, and under the policies and procedures adopted by the university itself. One or two universities

²⁹ <http://www.ucl.ac.uk/library/publications/rcuk-imp-guide.shtml>

³⁰ <http://www.york.ac.uk/library/informationfor/researchers/openaccess/journals/#tab-3>

- have taken the opportunity to provide, for all those who gain research awards from the Research Councils and other funders, detailed check-lists of what they must do in order to comply with the terms of the award, including matters of publication.
63. Almost all universities have adopted a policy under which they will not meet the costs of an APC unless the article and the journal are fully compliant with RCUK policy: non-compliance means non-payment. But even here things may not be as simple as they seem, particularly for those universities that have adopted a process that starts at the point when researchers *submit* an article for publication, and where the submission is to a hybrid journal which may well offer options as to licensing arrangements. Researchers who complete an application for payment of the APC at that point may well indicate that they will adopt options to comply with RCUK policy; and the application for funds would then be authorised on that basis. But when the paper is eventually accepted for publication, the administrators of the university fund may not get to see the interaction between the author and the publisher before they receive from the latter an invoice. And at that point, without time-consuming checking with the author and publisher, they may not be certain that the article is indeed going to be published on fully-compliant terms, with a CC BY licence; or that the accepted manuscript does indeed meet the requirements to acknowledge Research Council funding in the recommended form, and to include a statement as to how underlying data, samples or models can be accessed.
 64. Such problems will arise because of the lack of integration between authors', publisher's and university administrators' workflows, and the points of interaction between them. They may be less likely to arise in universities where authors apply for funds at the point when their articles are accepted, rather than submitted for publication; for in that case the necessary interactions between authors and publishers on the one hand, and university administrators on the other, naturally occur much closer together, and hence it is likely to be more practical and effective for payment to be authorised subject to a CC-BY licence being selected. Even there, however, some universities are delaying payment of invoices until they have evidence in the form of a DOI which links to a visible CC- BY-licensed publication.
 65. These problems, and the procedures adopted to address them, can give rise to tensions between universities, publishers and authors, and point to the need for more effective integration of their different systems and processes. Some part of the solution may lie with the use of intermediaries who themselves take on the role of providing the integration, but at a cost; and there is also the risk of some loss of the benefits that come from direct interaction between the principal parties.
 66. But checking on and ensuring compliance for publications where an APC is neither sought nor paid from the central university fund is even more fraught with difficulty. For in many universities, researchers are not used to the idea of informing

administrators about their forthcoming publications; and many researchers do not yet as a matter of course take steps to deposit accepted manuscripts in university repositories. There may thus be no obvious or natural point of interaction between authors and administrators before publication; and therefore no opportunity to check or advise on compliance with any of the key requirements relating to embargo periods, licensing, acknowledgement of funding, or location of underlying material.

67. Moreover, some universities are concerned that the looseness – which on many grounds is much welcomed – of RCUK’s requirements for licensing of papers made accessible via repositories can in some cases make it unclear to administrators whether the paper is indeed compliant. Some universities have expressed similar concerns about the required statement on how underlying data can be accessed: for they point out that in the absence of established practice of this kind in many disciplines, it is often not clear to researchers precisely what data or other material might be considered relevant. As practice develops in this area, the problem may diminish, but for the present it is difficult for universities to provide clear guidance on how to meet this requirement.

Post-publication checks

68. For publications where an APC has been paid, many universities already have experience, deriving from their use of the funds they have received from the Wellcome Trust since 2006, of the need to check that publishers have in fact published the article on open access terms. The procedures can be time-consuming, in part because legitimate delays can arise between the payment of the APC and final publication; partly because of the need to check licence terms; and partly because there is as yet no standard metadata format for signalling open access articles, which can cause difficulties in checking on publications in hybrid journals. This latter problem is being addressed by NISO and others, but will remain for some time yet. There is no quick and easy answer to the difficulties that arise for universities, other than to delay payment until the article is in fact published, as referred to above.
69. For post-publication checks on all aspects of compliance where no APC has been paid (or none has been paid from the university’s publication fund), universities must rely either on the versions and the metadata deposited in their repositories (or other repositories such as PubMedCentral), or on their CRIS or similar systems. It is notable that in some universities where the lead in administering the RCUK block grant, and in providing advice to researchers, is being taken by the library, it is nevertheless the research office or equivalent that has been allocated the task of post-publication monitoring; and in the larger research-intensive universities, there are fears that it could prove a major task. Moreover, few universities have yet thought through what action they might take when or if they find instances of non-compliance, beyond

simple reporting on overall levels of compliance - internally to relevant managers and committees, and externally to RCUK.

70. It is also important to note that while a few universities are confident that they will be able to track most if not all of the full population of articles and conference proceedings that fall within the scope of RCUK's policy, most are not. Where there has been no contact in relation to the payment of an APC, and no version of the article or the associated metadata has been deposited in the institutional repository or other system, universities must resort to the major databases such as Web of Knowledge and SCOPUS, or the systems that feed off them, in order to find articles published by authors affiliated to the university. They are aware that they may not find all the relevant publications from such sources; and there may be little incentive for them to search diligently. For diligent search is likely to reveal non-compliant publications, which will have an adverse effect on the rates of compliance that they report to RCUK.

Page and colour charges

71. Page and colour charges are levied by a number of journals, though how many is not clear. The Wellcome Trust has undertaken a brief survey to try to gain some understanding of the numbers of such journals and the scale of the charges. They were originally imposed to reflect the additional costs of printing large numbers of pages, or figures in colour; but in some cases, it has been suggested, they have become important sources of revenue for the journals concerned.
72. Such charges have until now been largely hidden from university administrators. Provision to meet them could be included in research grants, and if not, they were generally paid from research team or departmental funds. Thus at an institutional level, universities have no information about the number or scale of the payments involved. And there is a sense in which they have been caught on the hop by RCUK's making explicit at a relatively late stage that provision for such charges could no longer be included in research grant applications, and that they could be met in future from the new block grant.³¹ Many universities realised only at a late stage that such charges could arise for publications both when an APC is paid (ie as a charge on top of the APC) and where no APC is levied (thus including 'Green' publications); and that Research Council funds to meet page and colour charges would be provided only via the block grant .
73. In the absence of solid data about the pattern and scale of such charges, many universities are fearful that they could take a significant proportion of the block grant;

³¹ The policy and guidance issued in July 2012 referred to 'APCs and other publication charges'; but few universities were alert to the implication that provision for page and colour charges could no longer be included in research grants. This was made more explicit in the revised guidance issued in March 2013, and the final version in April.

but institutions have adopted quite different policies as a result. Some have accepted the guidance from RCUK that page and colour charges may be taken from the block grant, while bearing in mind that the overall purpose of that grant is to meet the cost of APCs. Others have taken the line that departments and teams will have to continue to meet the cost of page and colour charges, and that none will be paid out of the block grant. The latter policy derives in large part from fear that the block grant will prove insufficient to meet the demand for APCs. A number of universities suggested – whichever policy they had adopted – that they would need to review their position in the light of experience.

74. Those universities that are accepting applications for the payment of page and colour charges out of the block grant have also to deal with the issue that for the next year or so at least, authors will publish papers arising from grants where provision for such charges has been included. As part of their procedures, therefore, they must, as with APCs themselves, ask the question whether there is indeed provision in the grant; but few are contemplating rigorous checks.
75. Initial experience at some universities has reinforced their concerns about the possible scale of page and, more particularly, colour charges. In one case, the charges were levied alongside an APC, but came to several times the amount of the APC itself. The result was a considerable amount of interaction with both the author and publisher, and a decision to reduce the number of figures for which colour was requested. The evidence we have gathered suggests that many researchers and administrators are unaware that most of the publishers that levy colour charges (which are both more common and higher than page charges) provide an option for them to be waived if authors agree to their figures being published in colour only in the online version of the article; in which case the print version will include the figures in black and white. Take-up of this option is thus not yet as widespread as it might be, though it may become more common as both researchers and administrators become aware of the scale of the costs that may be involved in colour charges, and the scope for reducing or avoiding those costs. Procedures to take up that option will of course add complication to the advice to researchers, and the interactions between them, publishers, and university administrators.
76. Universities are also having to consider how best to gather more solid information about the scale and incidence of such charges, which will take time. Ease of administration suggests that where page or colour charges are paid on top of an APC, there should be a single payment to the publisher. But in the interests of monitoring and reporting, in large research-intensive universities in particular, it may be wise to use separate finance codes.

Collaborative publications

77. Universities stress the need for a flexible approach to the payment of APCs for publications arising from collaboration with other institutions, in the UK or overseas. That is because this is yet another area where they have little solid evidence, and no experience to draw on when seeking to devise policies or criteria. Some smaller universities are thus adopting an explicit case-by-case approach, depending on the nature and scale of the collaboration; and nearly all the universities we spoke to mentioned the need to review their position in the light of experience. For the future, it is suggested, the issue should be dealt with explicitly in collaboration agreements between universities and other research institutions.
78. But the degrees of flexibility at this initial stage vary. Some universities are for the present accepting the judgement of any of their authors who applies for funding, whatever their role in the publication. Others are seeking to introduce the notion that the author's contribution to the article should be 'significant' if payment of an APC is to be made, though it is not clear that any very precise criteria upon which to judge significance have been defined or agreed. Yet others are starting from the position that they will pay for the publications of corresponding and/or lead authors, and/or principal investigators; and there seems to be little consistency across the sector as to which of those three categories – or combination of them – is being adopted.
79. Where the collaboration is with other UK institutions, the widespread expectation is that universities should accept responsibility for paying APCs on a 'knock-for-knock' basis, trusting that such payments will even out between them. There is a strong preference for adopting this kind of approach rather than seeking proportionate contributions or split payments, which would add several layers of administrative complexity. Many universities expressed concern about the risk that requests for split payments would delay or even halt publication, particularly if they involved institutions with little or no money left to make a contribution³². Some universities, however, would be prepared to contemplate split payments if they were to be handled by an intermediary.
80. Where the collaboration is with authors from overseas institutions, most universities are prepared at present to increase the degree of flexibility, and to accept responsibility for payment of APCs even when their researcher is not the lead or corresponding author, or the PI. But some are starting from the position that in such cases, they should seek to comply with RCUK requirements via the Green route.
81. The flexibility being shown by universities at this stage is welcome, and perhaps inevitable since they have so little hard data or experience on which to draw; and the general expectation that UK universities will play fair with each other is welcome too.

³² One university also expressed fears about the possible VAT implications of split payments.

But there is scope for some tension between the initial criteria adopted by different universities as to the categories of author on whose behalf they are prepared to accept responsibility for payment of APCs; and that scope is widened by the varying cultures across disciplines in the designation of lead and corresponding authors.

82. There is too little evidence or experience at present to come up with firm criteria or recommendations on good practice. But since at least half of all publications by UK authors involve collaboration with researchers from other institutions, it is important that all universities monitor the extent to which they are paying APCs for such articles, including a breakdown for UK and for overseas collaborations; and keep a check on any issues or difficulties that arise. The possibility of developing clearer guidelines for dealing with collaborative publications can then be reviewed in the light of experience and solid evidence. Such evidence may also carry implications for the formula used by RCUK for the distribution of block grant.

Communications and advocacy

83. Many university libraries have for long been active in seeking to promote the cause of open access, and take-up of open access options by staff within the university; and many have seen the new RCUK policies as an opportunity to enhance their efforts at advocacy. The Library websites at East Anglia³³, Lancaster³⁴, Manchester³⁵, Nottingham³⁶ and York³⁷, for example, include an impressive array of material about the nature and benefits of open access, along with guides on how to achieve it.
84. But all universities have recognised the need to inform their staff about the new open access requirements set by RCUK, and the nature and implications of the new policies. They have adopted a mixture of targeted, cascade and broadcast approaches in order to meet this need. Thus most have arranged sessions for discussion of both the RCUK and their own institutional policies and procedures at relevant committee meetings, and also at school, faculty and departmental meetings. Some have also seen departmental research administrators as key people to target, because of their role in administering and advising on the terms and conditions of research grants, and hence as a channel for communication with researchers; in other universities, such as Bangor³⁸, the faculty, school or departmental liaison librarians have been given a similarly pivotal role. Some universities have also arranged targeted workshops for Principal Investigators (PIs) and for early career researchers; and a number have

³³ <http://www.uea.ac.uk/is/collections/researchsupport/openaccess>

³⁴ <http://lancaster.libguides.com/content.php?pid=429121&sid=3509788#12686882>

³⁵ <http://www.openaccess.manchester.ac.uk/>

³⁶ <http://eprints.nottingham.ac.uk/faq.html>

³⁷ <http://www.york.ac.uk/library/informationfor/researchers/openaccess/about/>

³⁸ <http://www.bangor.ac.uk/library/resources/library-open-access-publishing.php.en>

sought to use email cascades to PIs, heads of department or even to all active researchers.

85. Most university libraries and/or research offices have also developed or updated pages on their websites to broadcast information about the policies of RCUK and other funders, as well as institutional policies and procedures; guidance on the use of the institutional repository; and in some cases more general information on open access and guidance on issues such as copyright and licensing. In a growing number of institutions, the guidance extends to decision trees that reflect both RCUK and institutional policies, and some of these, such as Cambridge's³⁹ and Manchester's⁴⁰, include interactive elements. And at least one university has taken the opportunity to revise a detailed 'what you must now do' checklist which is sent to all grant-holders, so that it now covers publishing and open access issues and requirements.
86. The extent and the quality of the information provided on websites vary considerably: in some cases a great deal of thought has been put into structuring web pages in order to guide readers through a mass of complex information; in others, it has been decided to keep the pages as simple as possible, with 'survival guides' pages setting out 'how to comply with funders' policies', or the 'top ten things you need to know' accompanied by a limited range of links to external sources of information. In some cases, however, a plethora of such pages with overlapping content brings the risk of confusion for the reader. Overall, as institutions have sought to meet an urgent need for information and guidance via their websites, there has clearly been a great deal of duplication of effort; and there is clearly scope for co-ordinated and shared approaches in developing resources of this kind.
87. In all their communications activities, universities have faced a number of challenges: the delays and uncertainties surrounding the finalisation of RCUK policies and guidance; delays in determining and implementing their own policies and procedures; and ensuring an appropriate balance between the provision of an appropriate amount of information and context on the one hand, and a more straightforward 'what you have to do' approach on the other. This last issue continues to be kept under review in a number of universities. For all of them are working in a context where for most researchers – except for a relatively small minority – open access and RCUK's new requirements are not high on their list of interests or concerns; where many are therefore not inclined to spend time developing an informed understanding of the issues and requirements; and where as a result uninformed myths and misunderstandings are often widespread.

³⁹ <https://www.openaccess.cam.ac.uk/>

⁴⁰ <http://www.openaccess.manchester.ac.uk/showmehow/>

88. The difficulties have been exacerbated in some universities by some researchers' expressions of vocal hostility to elements of the new policies, and even to the general principles of open access. The requirement to use a CC-BY licence has been a particular focus of hostility and concern (especially but by no means solely in the humanities and social sciences). More broadly, the proposal that an open access requirement should be added to the REF exercise planned for 2020 has given rise to a range of concerns that go much wider than the issues raised by the RCUK policies.
89. Hence all the universities we spoke to saw the need for further activity to inform researchers about open access in general and the implications of RCUK policies in particular. None is confident that their researchers are well-informed at present (one put it in terms of 'leading horses to water.....'). Hence all of them are planning to continue their communications and advocacy campaigns at least until the end of the current year.

Monitoring and reporting

90. All the universities we spoke to are planning to monitor progress in the implementation of the new policies for their own internal purposes. As noted at several points in this report, they are aware that their current policies and procedures have been developed and implemented in the absence of solid evidence. Hence they see a need to gather from across different parts of the university information about patterns of publication; adoption of different routes to open access; expenditure with different publishers; licensing; and so on. They see the analysis of such information as essential to the development of their institutional policies and procedures.
91. Hence nearly all universities stated that they would be gathering, and would be able to provide to RCUK, significantly more information than that set out in the template included in the policy and guidance document issued on 8 April. They are particularly confident about the information they are gathering about publications for which they have paid an APC. But they also raised a number of common concerns.
92. First, in most universities, including those that have adopted research information systems such as Symplectic and Pure, relevant data is held in different formats in different systems – including repositories - with limited interoperability. Hence stitching it together will present the familiar challenges of manual interventions; and larger universities in particular are uncertain how much resource and effort will be required. Universities are aware of the need to develop their systems and to deal with the issues of interoperability; and many are placing great hopes on the implementation or further development of a CRIS, and/or on the data that will be provided through the JISC APC system. But they cannot be certain how successful such systems will be in presenting the information they need; nor how long it will take them to prepare the information they need in the meantime.

93. Second, even where universities have implemented a CRIS, they cannot be certain – despite the use of incentives such as updating of personal web pages referred to above – that researchers always record the metadata relating to their articles in such systems. Similarly, where institutions lay stress on deposit and the provision of accurate metadata in the institutional repository, they are aware that compliance is far from 100%. Many researchers simply do not see such deposit and recording as a productive use of their time. Thus, as already noted, the larger universities in particular cannot be certain that they gather accurate information about all the publications that fall within the remit of the RCUK policy.
94. Third, universities have similar concerns about the comprehensiveness and accuracy of the data recorded in the RCUK Research Outcomes System (ROS) or Research Fish. And they have particular concerns about asking researchers to record the same data twice in different systems – their own and the Research Councils’. Hence they stress an urgent need to develop effective interoperability and transfers of data between universities’ and RCUK’s systems; and for RCUK to seek the active engagement of universities in the development of ROS and Research Fish, not least to make them more user-friendly.
95. For all these reasons, universities’ confidence with regard to data about publications for which they have paid an APC sits alongside major concerns about their ability to provide comprehensive and accurate information about publications for which they have made no payment. Several pointed out that 100% accuracy is out of the question.
96. Two more specific issues have also been raised by some universities:
- a. Where provision for the payment of APCs and/or page and colour charges has been included in existing research grants, universities lack the means centrally to gather relevant information about such payments (and often the related publications) on anything like a comprehensive basis. This problem will diminish over the next couple of years; but there is no means of telling how big it is at present.
 - b. While initial responsibility for meeting the requirements to acknowledge Research Council funding, and to provide information about access to underlying data, rests with authors, final responsibility for ensuring that the such information appears in the article as published rests with the publisher. . Dipstick testing is hence an appropriate method for monitoring, by individual universities as well as RCUK. High levels of compliance may have to wait on the full implementation by publishers of the FundRef system.
97. In the light of all these concerns, some universities have suggested that central harvesting of metadata and other information from publishers may be the most effective means of monitoring for RCUK, alongside the local monitoring that

universities themselves undertake for their own purposes. Universities are also aware that the development of systems such as ORCID could help to make the processes of monitoring and reporting more reliable. As noted above, some universities are taking steps to encourage their researchers to register with ORCID, and some suggested a national campaign to that end.

Annex A

Information was gathered and assessed from the following universities. Those visited or interviewed are marked with an asterisk.

Aberdeen

Aston

Bangor

Birmingham*

Bristol

Brunel*

Cambridge*

Durham

East Anglia*

Edinburgh

Essex

Exeter*

Glasgow*

Hertfordshire*

Imperial College*

Kent*

Lancaster*

Leicester*

Manchester*

Newcastle*

Northumbria

Nottingham*

Oxford*

Queen Mary, University of London

Reading

Royal Holloway, University of London*

St Andrews

Salford

Surrey

Sussex

UCL

Warwick*

West of England

York*