Summary
Knowledge Exchange (KE) brought together a group of international Open Access Service providers on 1 October 2013 in Bristol to discuss the sustainability of their services. The exchange of experiences was considered very valuable, including by the two US participants participating by video. A number of recurring lessons learned were mentioned. Though project funding can be used to start up a service it does not guarantee the continuation of a service and it can be hard to establish the service as a viable entity, standing on its own feet. Research funders should be aware that if they have policies or mandates for making research outputs available they will eventually also be responsible for ongoing support for the underlying infrastructure. At present some services are used globally but the costs are only covered by a limited geographic spread, sometimes only a number of institutions or only one country. Finding other funding sources can be challenging. Various routes were mentioned including commercial partnerships, memberships, offering additional paid services or using a Freemium model. There is not one model that will fit all.

As more services turn to library sponsorship to sustain them, one strategy might be to bundle the requests and approach a group of research and infrastructure funders or institutions (and others) with a package rather than each service going through the same resource consuming process of soliciting funding. This will also allow the community to identify gaps, dependencies and overlap in the services. The possibility of setting up an organisation to bundle the services was discussed and a number of risks were identified. The next step will be to engage more widely, with other services, and with funders to discuss the role they might be willing to play in supporting the international OA services.

Setting the scene: Overview of the work and introduction to the day
Neil Jacobs welcomed all participants to the workshop and reminded them of the two earlier KE reports on Sustainability of Open Access Services. Alma Swan briefly presented the main points from the phase 1 and 2 study.1 In this study she analysed the main use cases in the Open Access infrastructure and identified, using community opinion, the most critical free-to-use services that support Open Access. Additionally, the viability and sustainability of these services were examined. The key challenges identified are how to embed business development expertise into service development; how to move money around the system from licensing to support the services; and governance and coordination of the infrastructural foundation of Open Access.

Raym Crow from SPARC, the author of the phase 3 report2 on collective provision of open access services, provided his views. He noted that sustainability planning should be included throughout the set-up and implementation of a service. The challenge is to get enough potential contributors to reveal their demand for the service and support this. He identified possible funding models like collective action (collecting voluntary contributions) and cross-subsidies (exclusive benefits to contributors generating income capable of cross subsidizing a service’s provision).

Use cases
- Establish repository
- Run repository
- Publish research findings
- Read and use research findings
- Build and manage academic profile
- Manage research (institution)
- Manage research (funder)
- Publish Open Access journals
- Promote Open Access

Figure 1: Use cases for services in the OA landscape

Figure 2: Raym Crow presents the phase 3 study

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With these reports as a starting point, the aim of this workshop was to discuss with international service providers which steps could be taken to improve the sustainability of the services required to create the Open Access landscape.

A rich variety in sustainability models and current approaches

The participants had provided briefings outlining their sustainability models prior to the meeting, and each presented the service they deliver and their views on the sustainability challenge. A number of lessons and challenges were recurring and notable.

- Services need a business plan. While five years is a long time to look ahead in the current, quite fluid times, services should at least have an idea where they are heading, even if they are not quite sure about the approach.
- There is a danger in relying on project funding. Applying for and administering projects is resource-intensive and, most importantly, grant funding can be ephemeral. If continuation of funding is received it is usually for innovation, not for the core service and can distract attention from the core service.
- The core infrastructure can be less attractive to potential funders; it has to be reliable and slightly boring. Yet continuous development of the core service is also required.
- Participants presented a rich variety in funding. Some were supported by one institution, by a collection of research funders, or through memberships. There are various other models for collecting funding. For example by offering paid services, a freemium model with additional paid services, crowdsourcing or using venture capital. A mix of funding is most attractive for the longer term\(^3\).
- Look beyond universities and funders to cover your costs. Commercial parties (e.g. vendors and publishers) can sometimes play a role.
- When working with memberships or sponsors it can be challenging to make the step from the first early adopters to getting the long tail on board.
- Many open access services have a global reach but are only covered by an institution, a group of institutions or a funder in one country. Getting funding across national boundaries or in other continents can be difficult. Sometimes funding is not permitted across borders, or the landscape in other countries is difficult to negotiate.
- In-kind contributions are well intended but are often difficult to put to good use.
- Services rely on each other but often do not pay each other for the information being used. This is both a challenge and an opportunity in achieving a complete sustainable OA infrastructure.
- There are many open access services out there each looking for funding and there is a duplication of effort in collecting funds. There are cost and time savings to be had, by both services and those from whom they seek funding, by centralising this process.
- Ensure a transparent governance collecting the interest of your customers. In some cases researchers might also play a vital role in the governance ensuring that the needs of research are accommodated.
- It is interesting to see how the European ESFRI projects will develop into legal entities that aim to be sustainable after project funding has ceased.

Addressing the sustainability challenge

All participants agreed that it was valuable to have the opportunity to learn from one another in this workshop. It would be great if others, including new services, would be able to learn from the mistakes made by others in the past. It has frequently proved difficult to move from project to service status, with all the organisational and management changes that this involves. It could be valuable to provide recommendations or advice on how to make this transition. For new services it would be great if there was a list explaining where they could find funding. When considering the future of a service there do need to be clear bylaws on the conditions under which a service can continue when it moves hands. There should also be a clear exit plan what will happen with the data when the service ceases. It can be useful to separate the service from the data that resides in the service, as this can also make discussions on intellectual property rights clearer.

It would be valuable to have a list of Open Access services that are required in the landscape. Although it is complicated to demarcate where this list would end, this has been done in the phase 1 report. A set of approximately 10 international services could be identified to start with. Setting up such a map of services would help identify gaps but also dependencies and duplication, so these can be addressed. Such a map could be presented to research funders. At present they are setting policies and mandates for open access to publications, research data and other information. However, although awareness is changing, they are not offering longer term support for the core services required to make the information openly available.

When approaching funders

There are possible approaches when approaching the funders:
- Individual services/projects could each go around with cap in hand.
- A syndicate of services could be set up that form a critical part. It would be best to describe the set of services as a value chain supporting use cases that funders care about.
- An umbrella organisation could be set up that would be tasked to do this job on behalf of the services. The organisation could, for example, be funded by function or by region.

It was considered more efficient to approach funders as a group rather than as separate organisations. In that case a compelling case should be made why the map of services are linked together in a package. On the other hand funders should also be allowed to break the package down if they prefer. There might not only be a role for an organisation to collect and distribute the funding, but also to get the services to work together. This would require solid governance that does not interfere with the independent governance of the individual services. The organisation could also play a role by helping the services to establish workable business processes and governance structures. Having such an organisation would make it easier to fill in the gaps and to take a good hard look at duplication of effort as all stakeholders want a lean open access infrastructure. As well as coordination between services coordinated action by funders in terms of providing longer term support for services would be the ideal way forward e.g. through the Global Research Council or Science Europe. Funders will need to be offered a role in the governance of the organisation, as they do need to be accountable for what they fund.

In the discussion a number of risks and considerations were identified in setting up such an organisation.

- It could become a bloated huge organisation.
- Participating in the initiative would take time and effort.
- It could lead to an increasing distance between the services and the funders.
- There is a risk that a service in the package is turned down, where would they go then?
- What if a service prefers to go their own way?
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- Would the organisation only act as an intermediary or would it also offer support?
- How to become part of the offering, would a service first have to impress a committee?
- Technological interoperability between services in the package is also required. However it should not become a *sine qua non*. Services do not have to be tightly integrated, but should use shared standards where appropriate.

With regards to sharing experiences of sustainability, this would rely on sharing market intelligence. It is easier to share if the services are not in competition. There will be limits on what can be shared but work can be done within these limits. Setting up a bundle of services would be an interesting exercise. It would be worthwhile to approach the offering from the funders’ perspective.
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