Reshaping the DCC Institutional Engagement Programme

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Abstract

This paper shares results from the Digital Curation Centre's programme of Institutional Engagements (IEs), and describes how we continue to provide tailored support on Research Data Management (RDM) to the UK higher education sector.

Between Spring 2011 and Spring 2013, the DCC ran a series of 21 Institutional Engagements. The engagement programme involved helping institutions to assess their needs, develop policy and strategy, and begin to implement a range of RDM services.

We have conducted a synthesis and evaluation of the programme, analysing the types of assistance requested and the impact of our support. The findings and lessons to emerge from these exercises have informed our future strategy and helped reshape the programme.

Introduction

An increasing number of UK universities are developing strategies for Research Data Management (RDM) and are beginning to implement support services to help researchers more effectively manage and share their data. These activities are often guided by funder requirements and codes of good research practice. There is also a growing recognition that research data are valuable and should be managed, both for the benefit of the individual researchers involved and society more widely.

A number of factors have influenced this change. Governmental drivers for return on investment favour making data available for reuse while, in parallel, learned societies articulate how data sharing benefits research. The Royal Society's seminal *Science as an Open Enterprise* report (2012), for example, advocates 'intelligent openness' - making data accessible, intelligible, assessable and reusable. UK research funders' data policies have, as in other countries, helped build momentum, and the Engineering and Physical Sciences Research Council (EPSRC) has placed an onus on institutions to provide appropriate support.

The UK Digital Curation Centre (DCC) is responding to such drivers by assisting universities to develop their capacity and capability to support Research Data Management. In particular, our programme of Institutional Engagements (IEs) has provided tailored support to a range of UK universities. The initial phase is complete and we have conducted two studies to evaluate and synthesise results. This paper describes the results, noting how they are influencing the ongoing provision of DCC tailored support.
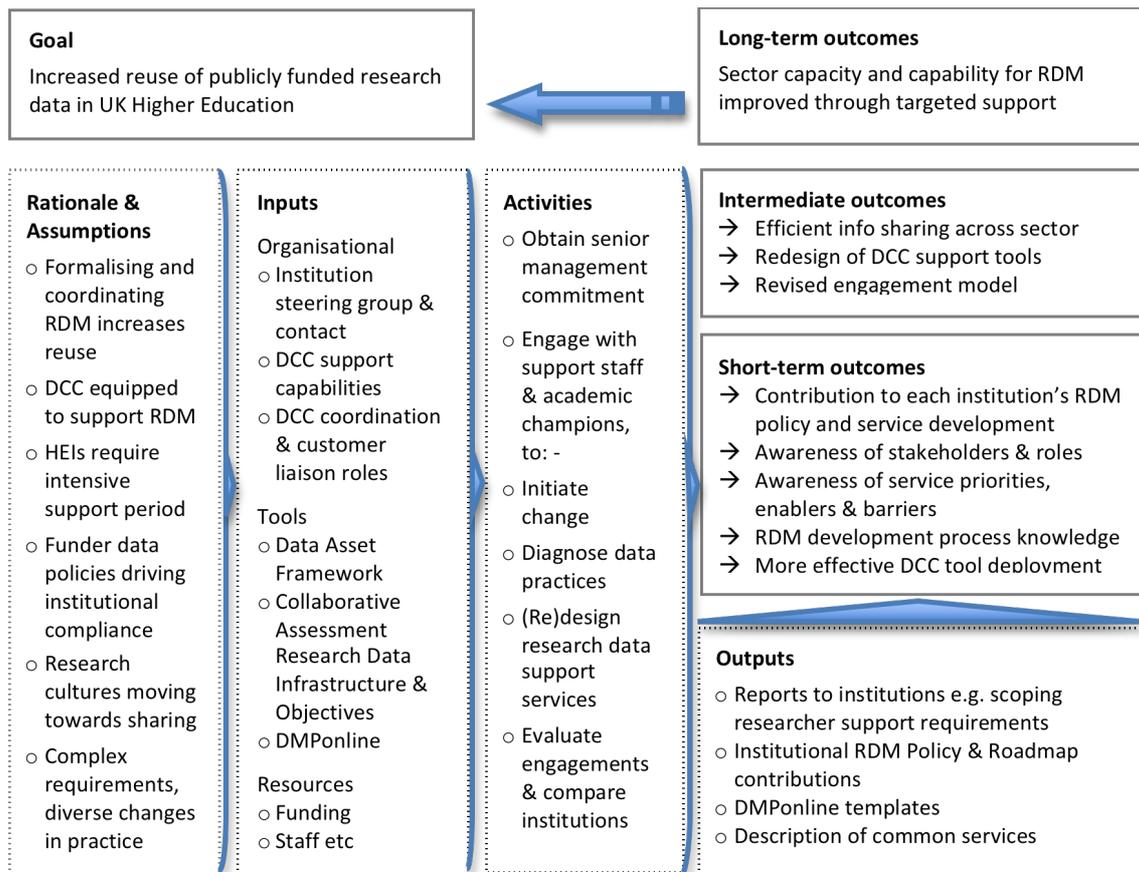
The Institutional Engagement Programme

Overview of the Programme

The IE programme was funded by the Higher Education Funding Council for England (HEFCE) under its Universities Modernisation Fund. It aimed to support UK Institutions develop Research Data Management (RDM) capability and drive efficiencies across the sector. The DCC engaged with 21 institutions between 2011 and 2013. DCC support activities were typically to raise awareness of RDM, assess support needs, develop policy and strategy, provide training, and help initiate service development.

Co-ordinated by Graham Pryor, DCC Associate Director, the programme involved the equivalent of ten full-time staff. Each institution was assigned two primary contacts, with other staff drawn in as their expertise was required. We sought the input of senior academic champions at each participating institution and agreed local contacts with whom to deliver the work. Earlier papers (Jones et al., 2012; Pryor, 2013; Donnelly, 2013) provide further detail on the programme.

Figure 1 represents the first phase of the engagement programme as a logic model (Cooksy et al., 2001). It depicts the programme inputs and activities, their intended outputs and outcomes, and the assumptions on which our work was based. We return to the model at the end of the paper, to describe key changes made.

Goal

Increased reuse of publicly funded research data in UK Higher Education

Long-term outcomes

Sector capacity and capability for RDM improved through targeted support

Rationale & Assumptions

- Formalising and coordinating RDM increases reuse
- DCC equipped to support RDM
- HEIs require intensive support period
- Funder data policies driving institutional compliance
- Research cultures moving towards sharing
- Complex requirements, diverse changes in practice

Inputs

Organisational
- Institution steering group & contact
- DCC support capabilities
- DCC coordination & customer liaison roles

Tools
- Data Asset Framework
- Collaborative Assessment Research Data Infrastructure & Objectives
- DMPonline

Resources
- Funding
- Staff etc

Activities

- Obtain senior management commitment
- Engage with support staff & academic champions, to: -
- Initiate change
- Diagnose data practices
- (Re)design research data support services
- Evaluate engagements & compare institutions

Intermediate outcomes

→ Efficient info sharing across sector
→ Redesign of DCC support tools
→ Revised engagement model

Short-term outcomes

→ Contribution to each institution's RDM policy and service development
→ Awareness of stakeholders & roles
→ Awareness of service priorities, enablers & barriers
→ RDM development process knowledge
→ More effective DCC tool deployment

Outputs

- Reports to institutions e.g. scoping researcher support requirements
- Institutional RDM Policy & Roadmap contributions
- DMPonline templates
- Description of common services

Figure 1. Logic model for institutional engagement.

Goal and outcomes

The overall goal was to increase reuse of publicly funded research data, by improving the sector's capacity and capability for RDM through targeted support. In pursuit of this long-term outcome, we sought to drive efficiencies by sharing models and lessons learned. In particular we aimed to make identifiable contributions to institutions' RDM policy and service development, and in doing so improve our models and tools. It is these outcomes we expect to be judged on. Measures of data reuse on the other hand are not well established, and our funders accepted our impact there would inevitably be indirect and longer term.

The rationale and assumptions were informed by UK Research Council policy, and the push from within academic communities to share data more openly. However, we were aware of the countervailing pressures and slowness of culture change (Whyte and Pryor, 2011). Well-established data centres demonstrate benefits that we believed could be realised more broadly, if intensive support could be channelled to develop institutional services (Charles Beagrie Ltd, 2011). We also anticipated benefits from interaction with the parallel activity of the second Jisc MRD (Managing Research Data) Programme 2011-12, and encouraged our IE partners to participate in MRD events to share lessons and learn from other institutions' practice.

Organisational inputs and resourcing

Our main aim was to contribute to service development, applying knowledge gained from DCC's collective experience in data curation and research data management. Each engagement was afforded up to 60 days of DCC staff time. This could be spent as the

institution wished, drawing on DCC and external tools, including the Data Asset Framework (DAF)[1], Collaborative Assessment of Research Data Infrastructure and Objectives (CARDIO)[2] and DMPonline[3]. Training and awareness events were also offered, modelled on an established Data Curation 101 half-day event and a series of regional roadshow events.

Activities and outputs

Adopting terminology from the field of process engineering (Kettinger et al., 1997), we saw our assistance focusing on three phases of an institution's RDM development process: initiating change; diagnosing data practices; and redesigning services. Mostly this involved input into RDM policy and strategy development, advocacy, benchmarking, and scoping researchers' service requirements. Involvement in implementing functions such as data repositories or storage is likely to be a longer-term need. Each engagement included a summative report, to be compiled into a synthesis report. The generic lessons were also intended to feed into a 'toolkit' of support materials for institutions, including case study exemplars of good practice and a descriptive model of those services we found to be commonly planned or delivered.

IE Programme Participants

The 21 engagements we supported were a diverse mix, ranging from ancient, research-intensive institutions to newer (post-1992) universities, as listed in an earlier IJDC paper (Pryor, 2013). We aimed for a wide geographic spread and a balanced portfolio in terms of the research strengths covered, the areas of RDM support required, and the participation of various service units. A few universities had undertaken a significant amount of work already, but for most RDM represented a new activity.

One of the trends to emerge as our work progressed was the prevalence of library services. The library was involved in every engagement, and in the majority of cases was leading the work on RDM. Research offices were also strongly placed, given their role in university governance and supporting researchers when bidding for funding. Surprisingly, IT services only took the lead in two of the 21 engagements. A breakdown of the main stakeholders who participated and led engagements is provided in Figure 2.
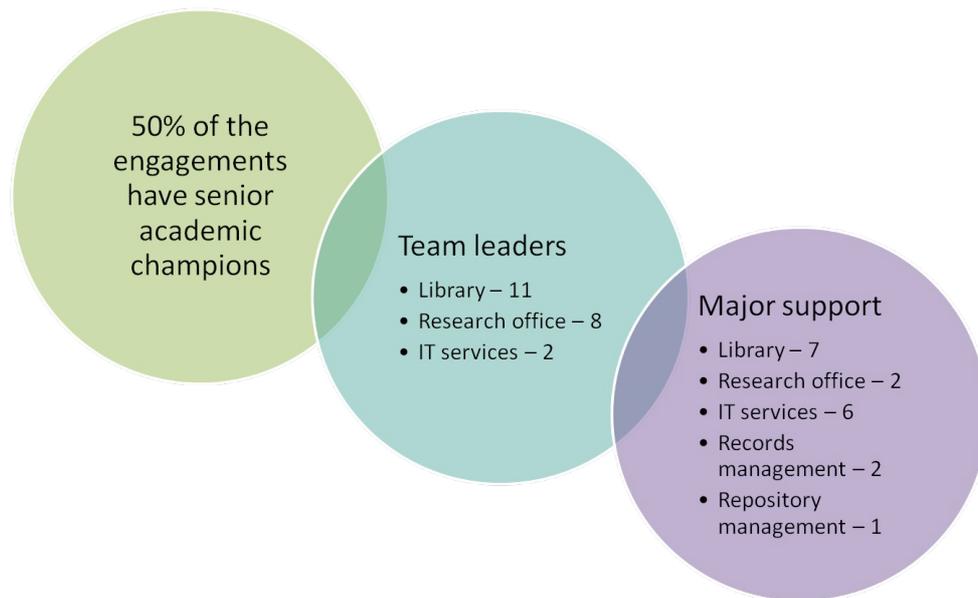
Support Provided by the DCC

With the majority of institutions in the early stages of RDM service development, advocacy and awareness-raising amongst staff at all levels of the organisation were essential to stimulate engagement with the issues. Strategy development was a common request for support, especially given the EPSRC requirement for a RDM roadmap. Policy production was also widespread, with many institutions developing theirs in parallel with a roadmap. Requirements gathering exercises were also popular, with a view to defining the local RDM landscape, identifying issues that central support could mitigate and providing evidence to support business cases. Figure 3 provides a breakdown of the types of support provided in the programme.
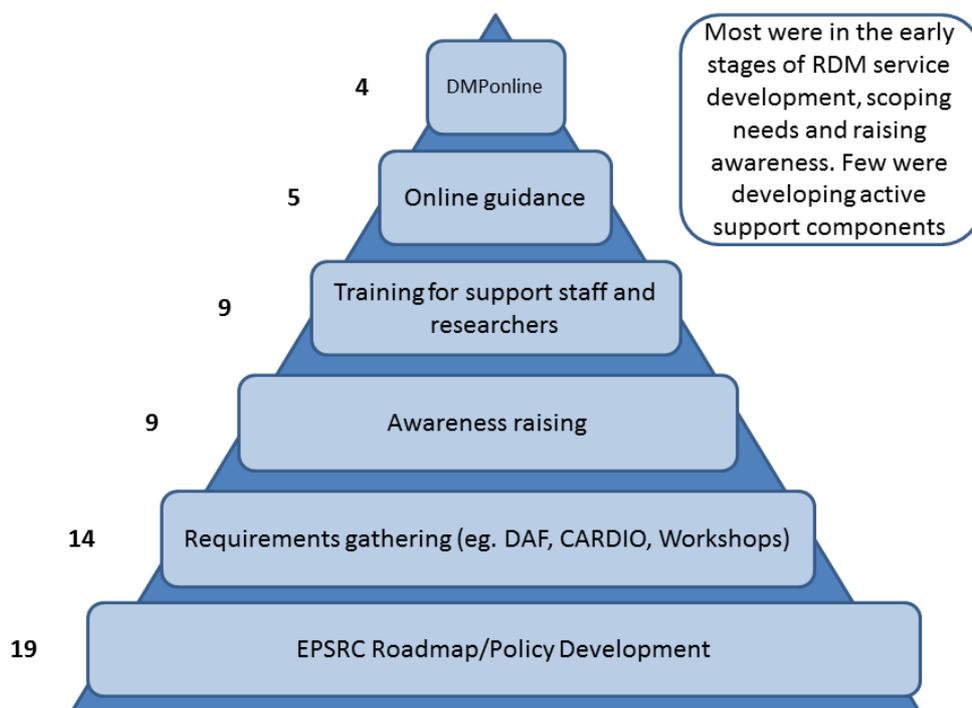
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[1] Data Asset Framework: http://www.data-audit.eu

[2] CARDIO: http://cardio.dcc.ac.uk

[3] DMPonline: https://dmponline.dcc.ac.uk

Figure 2. Breakdown of participants in the Institutional Engagement programme.

Figure 3. Types of support provided in the Institutional Engagement programme.

We supported institutions moving from early to intermediate stages of service development in a number of ways. We fostered delivery of online support to researchers via institutional web portals; we implemented tailored DMPonline templates, and we supported the development of training for research staff.

In terms of training delivery, we have seen a significant increase in requests for courses aimed at support staff, particularly librarians and research administrators. We see continued high demand for training as we move into our next phase, and anticipate a need for high-level advocacy to promote the development of new institutional infrastructure and services. Universities are keen to make a persuasive case for RDM, emphasising the research benefits over the need for compliance with funder and government policy.

Learning Lessons Through Evaluation and Synthesis

We evaluated the first phase of the institutional engagements in summer 2013. We examined this from two viewpoints; looking inwardly to compare and contrast DCC experiences across the programme, and externally by contacting key individuals at participating institutions for their feedback. The findings demonstrate that the programme was a great success and help us define where the greatest challenges remain. This has informed our current reshaping of the engagement process.

Synthesis

To synthesise lessons from the programme, Jonathan Rans, the second author of this paper, carried out semi-structured interviews with colleagues who had worked on each engagement (see Appendix 1 for the interview template). This allowed circumstances and approaches to be compared and analysed across engagements, with the results subsequently synthesised into an internal report. Broadly speaking, the lessons can be divided into two categories: those relating to the delivery of a sector-wide programme of support; and those relating to specific elements of support delivery (e.g requirements gathering, training etc).

Specific Support Elements

RDM is a complex subject and it can be hard for institutions to know where to begin and what can usefully be achieved with available resource. This was an area in which the DCC was able to offer support in a variety of ways by suggesting short term goals; helping to establish robust decision-making apparatus, ensuring that relevant stakeholders were involved; and advocating for future development.

Our involvement with IE partners and the Jisc MRD programme gave us first-hand exposure to a broad range of policy and roadmap documents and, most crucially, the allied decision-making processes. Our independent standpoint encouraged partners to trust us, and this exposure to the inner-workings of several universities provided useful insights that helped us to support other institutions. Our knowledge of the technical landscape and funding council requirements enabled us to provide expert guidance. This was particularly appreciated as most contacts do not deal with RDM issues exclusively and so are unable to immerse themselves in the subject to the extent that the DCC does.

There was a huge appetite across partners for researcher engagement and requirements gathering to inform and validate RDM service modelling. The DCC's experience in this area was a major asset for participants, particularly in the hands-on application of the DAF and CARDIO tools. Again, our independent status and experience with RDM was seen as an advantage when interacting with researchers. We found that many institutions are looking for lightweight ways to engage with their researchers, allowing more to be reached whilst reducing the risk of a low response rate. Accordingly, we modified the CARDIO tool by producing question sets pared down from 30 to nine elements that could be engaged with at different levels from a 'quick quiz' through to a focused workshop. Aligning topic areas with the EPSRC policy framework gave institutions a simple method for benchmarking progress.

For partners developing training programmes, RDM websites and online data management planning support, the DCC was able to reduce start-up barriers considerably by directing institutions towards relevant, high-quality, reusable content. For example, at the University of East London we designed a skeleton structure for a five-part training programme over the course of a day-long project meeting. Where possible, open-source resources were identified that could populate the modules and responsibilities were assigned for the remaining development work. A similar model was later followed at Loughborough. The participants in each case commented on how much longer it would have taken them alone, and how valuable the activity was.

Sector-wide issues

One of the challenges of providing support across the HE sector is the variability of the environment; each engagement was unique – influenced by variations in the size of the institution, the quantity of research, the focus of the research, the priorities of the institution and levels of available internal resource. Possibly the strongest factor defining each engagement is the human element – the politics of communication and project ownership influencing both what is achievable and how to implement it. A flexible approach was required to accommodate the characteristics of each institution.

Having said that, there are some useful generalisations that can be made. For example, the age and size of an institution often has a significant impact on the course of an engagement. In older, larger institutions the complexity of the hierarchy demanded more time to deal with the committee structure. Conversely, smaller institutions proved more agile and plans could be initiated more easily, but they suffered from smaller economies of scale and less available funding.

Flexibility in our approach was afforded by providing a significant level of resource, 60 days of DCC staff time in total. However, it became apparent that this was more time than most institutions could use. Primarily, this was because there were often a small number of people involved from the institutional side and this limited the resource they could commit. Other responsibilities can have an impact on the progression of an engagement, most notably for this phase the Research Excellence Framework (REF) assessment exercise, completed by UK institutions in late 2013. Changes in legislation around open access to publications and other local considerations, such as infrastructure refreshment and office moves, were issues that our institutional colleagues needed to accommodate. The small numbers of people involved on either side meant that staff changes tended to have a profound influence on the progression of an engagement.

Two notable exceptions to this rule arose when we worked with institutions that had internally funded RDM projects. Our relationship on these occasions was fundamentally different and much closer to that of consultants employed by the project group. This changed the way we engaged with the decision-making process and it may be

significant that in these cases we did not take part in steering group meetings. Since the institutions were better able to deliver resource on their side, the rate of progress tended to be more intense and expectations were higher in terms of the use of resources and turnaround times for work packages. These experiences proved to be quite influential on the design of future support delivery, as we expect this kind of relationship to become more prevalent as institutions begin to employ dedicated staff to manage RDM.

Although most of the participants could not use their full allocation of DCC staff time, the open-ended nature of the support promised was a challenge for resource planning. Regardless of the size or composition of an institution, there are certain times of year when it can be very difficult to secure the attention of support staff and researchers, e.g. exam and conference season. Managing this workload when support was pre-promised, but not scheduled, proved to be challenging.

Unsurprisingly, the level of influence of those involved in the engagement is vital for driving the rate of progress. A fair amount can be achieved without the direct involvement of senior management, but their support is advantageous and becomes necessary as institutions begin to implement live services that need to be sustained. External funding for RDM can be hard to secure and most institutions will have to divert resources from other areas. We see a clear need for advocacy, initially at the high level, to ensure that funds are allocated in support of RDM projects, and subsequently among the research base, to ensure that advantage is taken of newly developed infrastructure.

Evaluation Insights

To evaluate the programme, Diana Sisu, DCC Customer Relationship Manager, carried out telephone interviews with representatives from participating institutions. The 16 people surveyed were nearing the end of their engagement and were asked questions to assess their level of satisfaction with the programme. Sisu was not directly involved in delivering the IEs, so it was felt that institutional representatives would be more likely to open up and not be afraid to be critical. Interviews lasted 30-45 minutes and followed a set questionnaire (see Appendix 2). The key questions that the survey tried to answer were:

- What motivated institutions to join the programme,

- Whether the DCC service had met expectations,

- How institutions had benefited from the IE programme.

To assess the longer-term impact, a second round of interviews will be held in 2014, when it is anticipated institutions will be focusing on implementation of their RDM plans.

Motivation to join the engagement programme
The main reasons given for joining the scheme were:

- The need to develop and implement an RDM policy,

- The opportunity to take advantage of expert advice and free help,

- The need to comply with new EPSRC requirements on RDM.

It was interesting to note that out of the 16 institutions interviewed only four (QMUL, Surrey, Salford and Loughborough) gave the need to meet EPSRC deadlines as the primary reason for joining the programme. The rest stated that their main reason for joining was the need to develop or implement a research data management policy, combined with the fact that they lacked the internal resources to do so.

Meeting expectations

In terms of quality of advice, all institutions stated that their expectations had been met or exceeded. They were particularly enthusiastic about DCC's provision of advice and solutions tailored to the needs of their institution. Staff who had attended training sessions had been impressed by the DCC's extensive knowledge and expertise.

In terms of the quality of service delivery, there were some problems caused by misunderstandings, rather than poor service as such. The main complaints were that timescales were too vague and that the DCC did not always make direct recommendations. This was largely due to a mismatch between the role DCC thought it should play and what institutions expected. DCC staff had anticipated they would take an advisory role, guiding institutions through the process of assessing their RDM needs and selecting appropriate solutions together, whereas some institutions had expected DCC to manage the whole process and provide clear-cut recommendations. One representative summed this up by stating:

> 'When you're venturing into the unknown and someone says they're willing to help you, then you sort of hope they will help you more completely than it's reasonable for them to do so.'

It is important that the successor programme offers a clear structure, with deliverables and timescales agreed in advance. RDM is a new area for most institutions and it may be difficult for them to assess the timescales and resources required. However, the DCC can anticipate the amount of effort required, and should take control of the planning process where institutions are looking for clear direction.

Key benefits of the engagement programme

All institutions felt that engaging with the DCC helped them to understand how to implement a data management policy, and were confident that they would meet the EPSRC's 2015 deadline. All said they would recommend DCC services to other institutions and some had already done so. The main benefits of engagement were:

- A better understanding of internal practices in RDM;

- A good understanding of RDM best practice in the UK higher education sector;

- Increased skills and knowledge among institution staff, with many institutions able to carry out internal staff training by themselves, based on materials provided by DCC;

- Increased awareness of RDM in all its complexity among both support and research staff. For example, one university stated that thanks to the engagement, IT services where now looking at RDM not just in terms of storage but also in terms of recording, tracking and building effective metadata.

All those interviewed agreed that trying to rationalise the RDM process on their own would have cost more staff time. Without the DCC to guide them they would have taken

a lot longer to produce policies and procedure in which they would not have had a great deal of confidence. Thanks to help from DCC, they are confident that they are moving in the right direction and are able to carry on under their own steam.

A Continued Programme of Tailored Support

Challenges

The synthesis and evaluation exercises highlighted a number of challenges that have helped inform our revised model.

Tailoring to institutional needs

Each engagement was a negotiation. We needed to build rapport and develop a strong working relationship with the participants to understand the differences in culture, environment and institutional priorities. A balance also needed to be struck as to the extent to which we took the lead and steered the work. Some institutions sought assertive direction and clear recommendations from the DCC, whereas others simply used us as a sounding board to validate their plans. Each case had to be judged individually and a flexible approach was required to accommodate different expectations.

Tailoring our services to the specific needs and working practices of each institution was crucial, and feedback on this has been very positive. Participants commented that it was unusual to receive a bespoke service, and they were pleased that DCC staff endeavoured to understand their specific data management challenges, rather than apply blanket methodology. In the ongoing support we provide, we will continue to tailor the services to each specific context.

Scheduling work

It takes time for engagements to build momentum, so our approach needs to accommodate periods of inactivity. Often institutions know they would like to do something but cannot be specific about what can be delivered and when. In the first phase of work we agreed areas of activity, but didn't always pin down dates. Naturally there were peaks in demand and managing this workload when support was pre-promised, but not scheduled, proved to be challenging.

Although most engagements typically progressed slowly, there were notable exceptions when the institution had dedicated funding for RDM and staff specialising in this area. Their momentum was naturally echoed in our collaboration, and our role in these cases was much closer to that of paid consultants. The rate of progress tended to be more intense and expectations were higher in terms of the use of resources and turnaround times. We expect this kind of relationship to become more prevalent as institutions begin to employ dedicated RDM staff, so our new model needs to suit this mode of working as well as the more common approach that we experienced.

Moving from policy to operational services

One of the main forthcoming challenges will be assisting institutions to turn their plans into operational services. This will also require that DCC staff have the requisite practical experience to be able to assist institutions. In the initial phase of work, DCC staff gained a lot of detailed, practical expertise through the process of providing support. We were in a unique position, being privy to internal discussions and having

access to draft documents. This position allowed us to assimilate good practice on establishing RDM services – learning by doing. Ensuring a balanced programme in the second phase of work will be critical so we can continue to work alongside institutions at the cutting edge and share lessons from these pioneers with institutions in the second and subsequent waves.

To fill identified skills gaps we are also open to alternative possibilities; recruitment, short-term placement within leading institutions, or partnership with third-party providers. Offering support for service implementation requires us to engage with a rapidly developing ecology of data management tools and infrastructure. Identifying 'core' requirements and offering actionable guidance on them is therefore an ongoing challenge that we address through staff development and partnering with other organisations.

As highlighted earlier, the majority of people we support do not deal with RDM issues exclusively, and so have less immersion in the subject. Our knowledge of the sector through participation in major events and conferences, and insight into the Jisc MRD programme results has led to quite a unique set of skills. Knowledge is undoubtedly lost as DCC staff move on, however we have found that our expertise can be shared in a reasonable amount of time, through on-the-job training and shadowing to equip new staff to support institutions.

A New Model for Tailored Support

Going forward, many characteristics of the engagement model portrayed in Figure 1 are unchanged. Activities and outputs are broadly similar, and we are aiming for comparable short-term and intermediate outcomes. Our rationale remains the same, though our assumptions have met with a reality check. We are more conscious of enablers, for example the ease of signposting existing resources, and barriers to development, such as uneven starting levels and wide gaps between policy and research culture.

The changes to the model are mainly to the inputs and how our activities are organised. We will no longer be assigning a block of effort to be drawn on as needed. In contrast the new approach will be more modular. This should allow us to engage with a broader group of institutions and respond more proactively as institutions gear up for RDM work or move into periods of inactivity. Overall the aim is to be clearer to customers both about what is on offer, its boundaries, and the effort required of them, especially as few institutional support staff have dedicated RDM roles. We are also placing more emphasis on benchmarking RDM service provision across the sector.

Resourcing: Doing more with less

We plan for future engagements to be more modular and flexible. We will agree small pieces of work with each institution and review the potential for further support after each. The aim is to respond quickly to requests and support a broader community by taking on and completing engagements faster. By closely monitoring the status of each engagement, we hope to better plan DCC staff schedules. This status monitoring will include differentiating between active engagements where tasks are defined and underway, or instances where some work has been done but the engagement has returned to an inactive phase, pending future plans. Recognising when one of our IE participants has moved back into an inactive phase will allow us to allocate effort to another institution.

In line with the more modular approach, the DCC team now has flatter structure too, with any member of staff assigned responsibility for leading the work with a given institution. We have also formalised routine reporting and data gathering. To help analyse and synthesise results, we make more use of reporting templates. These templates improve the recording of participant feedback, and better co-ordinate note-taking on the organisational and technical issues that our IE partners find relevant.

Some institutions may require support on a wide range of RDM activities. As we have limited resources and aim to reach a wider audience with this programme, we may need to seek the recovery of some costs should an institution's requirements be over and above the norm. Participants in the first programme confirmed a willingness to pay for some services, so opportunities for paid consultancy will be explored.

Types of Support

Based on the support we were asked for in the first programme, we anticipate that individual modules may include tasks such as leading focus groups to gather requirements, advising on policy development, running a training course, customising DMPonline or providing feedback on RDM plans. Figure 4 identifies current top-level themes for support activity. This reflects a model of core institutional RDM service components that we derived through interaction with the Jisc MRD programme (Jones et al., 2013). Arrows illustrate that the engagement process aims for continual improvement, both for our support service and our institutional partner's RDM service.
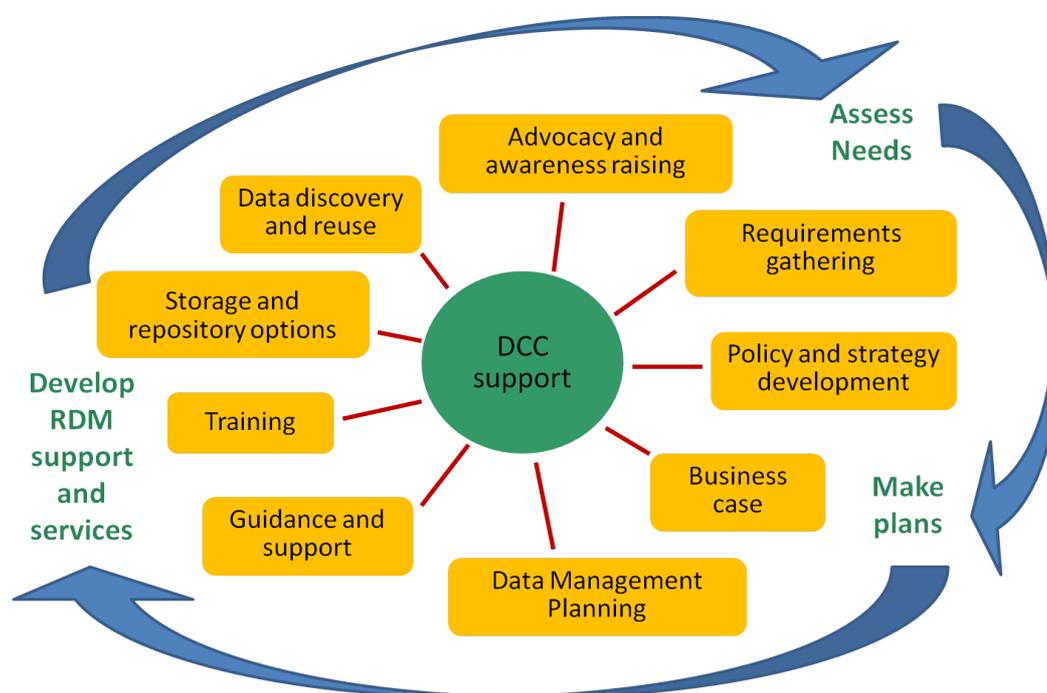
Figure 4. Ongoing themes for tailored support.

The DAF and CARDIO approaches will be further integrated to fit the more modular approach. Each may still be used either independently or in tandem so requirements and benchmarking studies inform each other. Where the norm has been for these tools to be used in one-off exercises focused on the initial stages of policy and

strategy development, we are currently reviewing how to better support RDM project managers to consult stakeholders more regularly on their requirements.

We will continue to adapt generic support materials for training and awareness events, and tailor them to each institution's needs. We will also run bespoke semi-structured workshop activities with relevant stakeholders. Naturally, some of the materials we create will be applicable to a broader audience, so wherever possible we will make these openly available and reusable to benefit a wider audience.

Conclusion

The objectives for the Institutional Engagement programme were twofold:

1. To increase capacity and capability in Research Data Management,

2. To drive efficiencies in the sector by sharing models and lessons learned.

The synthesis and evaluation work demonstrate that these objectives have been met. We have also reshaped our model to suit the challenges identified.

Increasing Capacity and Capability in RDM

The engagements have undoubtedly increased capability in the participating institutions. Participants commented on their increased skills and understanding of RDM. Our involvement helped them to get started, gave them a direction and increased confidence. One remarked:

> 'We certainly feel more confident that we are heading in the right direction and are able to carry on under our own steam.'

Several institutions have successfully made a case for investment in dedicated RDM staff. Moreover, the increased capacity within these institutions has had a wider impact. Participants in the programme were encouraged to collaborate with one another and Jisc MRD projects, fostering networking and knowledge exchange to a much broader group.

The level of RDM provision in participating institutions has improved. We have helped to develop data policies in 13 institutions, contributed to RDM strategy in 14, and have supported the development of online guidance, training and tools in many others. Although these achievements are not a result of our work alone, our involvement has undoubtedly helped to drive forward the RDM agenda and quicken the change.

Driving Efficiencies in the Sector

All of those interviewed agreed that working on their own would have been more resource intensive. Without DCC guidance, they would have taken a lot longer to produce policies and procedures, and would have felt less confident of results. Participants felt that, as a result of their IE, they had a better understanding of data management policy implementation, and were confident they would meet the EPSRC's 2015 deadline, where appropriate.

The DCC has been proactive in terms of documenting lessons and sharing outputs of individual engagements wherever possible, for example via the *How to develop research data management services* guide, (Jones, Pryor and Whyte, 2013). Associated

case studies[4] profile these activities and, alongside conference presentations and discussions with other national bodies, we have ensured that the lessons learned are disseminated to the wider community. The investment in this programme has been of huge benefit to the DCC, the participating institutions and the wider community.

Acknowledgements

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Appendix 1:
IE Synthesis Interview Questions

First Contact

- How has this varied – is it mostly through roadshows?

- Who has made the first contact (Library, RES, other)?

Decision Making Apparatus

- Was an RDM committee in place/set up?

- Did we influence its creation or composition?

- How did it communicate with senior management and did we influence this?

Designing the Engagement

- Did the institution have a fixed set of issues to tackle or did we have to provide guidance on what steps to take?

- Who was the driving force, were they effective?

What We Did: Outreach

- Did we engage in training or awareness-raising exercises?

- How many people did we speak to?

- Have we engaged in train-the-trainer activities and what is the potential secondary reach of this work?

- Did we repurpose existing material (MANTRA etc)?

- Where have we varied our usual approach?

What We Did: Information Gathering

- Did we use DAF/CARDIO and was it with modifications?

- Was a train-the-trainer approach adopted?

- Did we vary our usual approach?

Policy/Strategy Development

- How did we have input in the development of documentation?

Implementation of Services

- Did we make DMP templates?

- Did we introduce IEs to other external services (e.g. DataFlow)?

- Did we encourage the repurposing of online support material?

- Have we contributed to other service development – storage discussions/repositories/metadata catalogues?

- Have we helped with funding bids (JISC or otherwise)?

Legacy

- What has remained in place, post-engagement (steering committees, training courses, etc.)?

- Have new posts been created?

- What programme of activities will continue?

Challenges

- Is there anything not covered in the interim reports?

Appendix 2:
Customer Satisfaction Questionnaire

1. How did you hear about the institutional engagements/what prompted you to get involved?

2. Please describe three of your key expectations for this engagement and explain how satisfactorily they were met.

3. Was 60 days of free support sufficient to achieve the main aims?

4. What did you like/dislike about the service?

5. Would you have preferred the DCC team to be more hands-on/present on site more often?

6. As a consequence of the engagement, do you believe that your institution has gained an effective level of data management capability sufficient to continue this area of work?

7. Which outcomes from the engagement do you believe are likely to produce cost savings or value improvements, either short, medium or long term?

8. What level of ongoing support from us do you expect to require?

9. What other services would you like us to provide?

10. Would you pay for the services we have provided for you on a consultancy basis?

11. Would you recommend us to other institutions?

12. The following DCC staff [insert names] were assigned to work with you:

    1. Did they understand your needs?

    2. Did they seem knowledgeable?

    3. Were they able to explain the key concepts in language you understood?

    4. Were you able to get in touch with them whenever you needed to?

    5. Overall, how would you describe your relationship with them?