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Survey on DSA-certified digital repositories

Report on the findings in a survey of all DSA-certified digital repositories on investments in and benefits of acquiring the Data Seal of Approval (DSA)

The Hague, 23 November 2016

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With thanks to the DSA board



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Abstract

The Data Seal of Approval (DSA) has been in use as a certification instrument for trustworthy digital repositories (TDRs) since 2010. By March 2016 some 50 repositories had applied successfully for the seal. Whereas some organizations and repositories have published about their own experiences in the certification process, no comprehensive overview was available of such practice-based evidence drawn from all DSA-certified repositories. Within the framework of a national project, a Dutch team fielded a survey to all DSA repositories. This report presents all collected (anonymized) responses and some basic analyses. Quantitative and qualitative evidence submitted in the survey is presented in Annex 2, and summarized in this report. The data strongly indicates that while the respondents report considerable (though varying) levels of investment of staff resources in the certification process, they also recognize and emphasize the benefits of the exercise and clearly recommend this type of certification to their peers.

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1. Introduction

Within the framework of the Dutch Network Digital Heritage (in Dutch: Netwerk Digitaal Erfgoed – NDE), a project group on certification aims to propagate certification of digital archives of major Dutch heritage institutions (national ‘hubs’) as Trusted Digital Repositories (TDRs). As a corollary result, it is envisioned that the national hubs actively disseminate their knowledge and expertise throughout their respective domains (libraries, (governmental) archives, museums, (scientific) data archives and data specific repositories, such as audiovisual).

The project group operates under the umbrella of the Netherlands Coalition for Digital Preservation (in Dutch: Nationale Coalitie Digitale Duurzaamheid – NCDD) and consists of representatives of several national heritage institutions and a number of affiliated organizations.¹ The main activities of the project are:

- assembling and organizing expertise and know-how on certification,
- sharing accumulated experiences and knowledge, and
- reach-out efforts such as workshops on various aspects and stages of work on certification.

Both the project and the national network embrace the ‘European Framework for Audit and Certification of Digital Repositories’ as its guiding principle.² Within the framework, the Data Seal of Approval (DSA) is offered as the first level of certification (Basic or Core Certification).

2. Motivation

The DSA has been used as a certification instrument since 2010, and as of March 2016 some 50 repositories had obtained the seal. Some organizations have published on their findings in meeting with DSA-requirements.³ Yet, no comprehensive overview is available on the experiences regarding the process and results of certification of all DSA-certified repositories. The project group thought this kind of information would be valuable in order for other candidates to be better prepared for the certification process. In an effort to collect such experiences the Dutch project requested permission from the DSA Board to field a survey among all digital repositories that had achieved DSA-certification by March 2016.

The target audience of the project group consists primarily of organizations in the Dutch cultural heritage domain. Up to date virtually no institution or repository in this domain in the Netherlands has been certified within the European framework. Certification efforts by such Dutch DSA-applicants will therefore constitute their first encounter with the entry level instrument within the framework – the DSA. Hence, this survey asked respondents to report on their experiences during their own *first application for the seal*.

The instrument of DSA-certification has changed as off September 2016. The 16 ‘guidelines’ have been reorganized and rewritten as ‘requirements’ based on the existing DSA en WDS guidelines and their common experiences in implementing them. The basic tenets of core certification efforts will

¹ See the acknowledgements section for the composition of the project group.

² <http://www.trusteddigitalrepository.eu/>

³ See the analysis of the Archaeology Data Service (UK) from 2011: <http://www.dcc.ac.uk/resources/case-studies/ads-dsa>; and the more recent report by the Finnish Social Science Data Archive from 2015: <http://www.datasealofapproval.org/en/assessment/fsd-dsa-case-study>.

remain unchanged, however, and the Dutch project is convinced that the outcomes of this survey can be of considerable significance to organizations considering or actually preparing for DSA-certification – also after the introduction of the DSA's revised requirements in September 2016.

3. Process

Fielding the survey

Following permission of the DSA Board, the DSA Secretariat distributed the survey to all DSA-certified repositories on March 20, 2016. It remained open for the collection of responses until April 18, 2016 (a four-week period). One reminder was sent out approximately 10 days prior to the announced closing date. The project group designed the survey with the use of the SurveyMonkey® application, and collected the responses with the same instrument.

The survey design

The survey consisted of an introduction aimed at prospective participants and 33 questions. The introduction identified the initiators and described the rationale for the survey, the permission of the DSA Board and a call for participants to fill out the survey. Summarizing its main objective, the header of the survey read

DSA-experiences: help your peers!

The entire survey is attached to the report, as Annex 1.

The questions were organized into the following groups:

- I. Type of repository, and fte's [Q1-Q3]
- II. Your DSA-certification [Q4-Q9]
Request for selection; first or second DSA-application? [Q10]
- III. Your orientation phase [Q11-Q12]
- IV. Your preparatory phase (self-assessment) [Q13-Q18]
- V. Your application and the review process [Q19-Q20]
- VI. Investments & outsourcing [Q21-Q27]
- VII. Benefits [Q28]
- VIII. Impact on your own organization [Q29-Q31]
- IX. Overall investments and benefits [Q32]
- X. 'Lessons learned' and additional considerations for potential future applicants [Q33]

Most questions were designed to present participants with prescribed, multiple-choice answers. Some of these multiple-choice questions allow for the selection of multiple answers to one question. In order to obtain qualitative data open-ended questions were included as well [Q2-3, 11, 15-16, 18, 20, 26-27, 31, 33]. In two cases, open-ended subsidiary questions followed the participants' choice for a prescribed answer [Q1 and 9].

4. Summary of the results

Annex 2 contains all answers received during the survey. The graphs with Q23, 28-29 and 30 contain truncated labels, but these are repeated in full in the response summaries below the graphs. The

export for Q30 contains a faulty graph. Some responses have been edited to prevent identification of repositories or respondents, without curtailing the information provided.

Response rate

The survey was sent out to the email addresses of 50 DSA-repositories, or organizations that operated such repositories. The DSA Secretariat was confident about the correct delivery to 47 recipients. Of these addressees 18 filled out and sent in the survey. The participation rate came to 38.3% = 38% (of the 47 repositories); a more than adequate response rate. No enquiries about the survey were received by email whilst the survey was active, although this possibility was offered.

Clarity of the survey questions

Overall, the survey questions proved to be comprehensible to most participants. Some responses given to questions about the number of employees [Q2-3] contained unexplicable answers. Moreover, the response rate to the questions related to the practice of *outsourcing* functions and responsibilities to third parties [Q24-27] was surprisingly low. As we know that some DSA-certified repositories have indeed outsourced some of these elements to third parties, possible explanations for this phenomenon include:

- none of the repositories that outsource such elements have filled out this survey;
- the phrasing of the question was too ambiguous or too vague;
- the organizations that participated decided against supplying such information.

The Data Seal of Approval is increasingly open to outsourcing certain activities to third parties, provided these types of services are clearly documented and described (for instance, in a service level agreement – SLA).

The certification process

Most respondents are satisfied with the clarity of the instructions, compliance requirements and the reviewers' comments. The majority of the participants rate these aspects as "adequate" or "adequate-excellent." This positive appraisal may be biased to some degree since all respondents work at organizations that have completed the DSA-application successfully. They, and their organizations, apparently were in a position in which they could understand, interpret and apply the certification requirements, vocabulary and relevant issues.

General impression of certification as such

Most DSA-repositories are positive about the benefits of the process and its outcomes, both in relation to their external exposure as well as their internal processes and expertise. The benefits propagated by the DSA itself⁴ are in line with the perception of the respondents: this is most clearly the case with the stated benefit "awareness raising about digital preservation," followed by "stakeholder confidence." When queried about *other* perceived benefits, it is clear that the certification process not only led to external benefits but also to improved internal processes, documentation and opportunities to attract data producers as well as data consumers.

Perhaps not surprisingly, the vast majority of the respondents (83%) would very likely or certainly recommend certification to others. At the same time, almost no one aimed for certification at a

⁴ <http://www.datasealofapproval.org/en/assessment/benefits/>

higher lever (DIN 31644, ISO 16363). The overall tendency of the respondents' answers suggests they perceive the benefits of DSA-certification as both tangible and critical to the continuing fulfillment of their mission.

DSA-certified repositories report widely varying levels of investment of time in the certification process – and do so for all certification phases. This is not surprising, as this depends heavily on one's level of entry. They can be summarized as follows:

- *Orientation* phase [Q12]:
80% of respondents estimated an investment of up to 20 hours.
- *Preparation* (self-assessment) phase [Q13]:
50% up to 100 hrs.; 30% up to 200 hrs.
- *Peer review* process [Q19]:
50% up to 50 hrs.; 30% up to 100; 12% up to 200

The majority of the respondents rated the ratio between investments and benefits as “adequate-rewarding” to “rewarding-excellent.”

As the DSA is positioned as an entry level certification instrument it is interesting to see the range in answers to Q23, where respondents were asked to compare *expected* and *actual* time investments in the process. The largest number of respondents (6) indicated that they had underestimated the required investment, the second largest had correctly predicted it (4), and two smaller groups (both 3) either did not have preconceived expectations or reported that they had overestimated the required time investment.

On the whole, the answers concerning time investments are not based on documented evidence like time sheets. Most repositories stated [Q21] that they did not keep records of their staff's efforts. Hence the answers are probably estimates based on memory and recollection. Actual time investments will largely depend on the degree in which organizations already have available the documentation required for a successful DSA-application – and the quality of that ‘evidence.’

In the section ‘Discussion of responses received,’ below, we summarize the respondents' quantitative and qualitative input as collected in this survey and present observations on their answers, organized in six main subjects.

The authors hope that this report contributes to the further development of the Data Seal of Approval, both as a certification instrument and as a vibrant community of preservation professionals. Such further enhancements of the seal and its bearers might multiply the experience shared by one of the participants, who stated (in the final question, Q33):

“the experience of applying and the issues that came up during the process have turned out to be very positive and are helping us consolidate our quality related working lines.”

5. Recommendations to the DSA Board

The experiences of the respondents to this survey originate from the traditional core of the DSA community: institutional, scientific data repositories. While the contents of this report are a significant source of practice-based evidence for such DSA-applications, we encourage the Board to collect and disseminate experiences and ‘lessons learned’ by applicants from other domains. One of the DSA's aims is to broaden its scope in order to serve and assess

repositories from other domains. Providing information on investments and benefits as reported by repositories in adjacent fields (e.g., (public) archives, libraries, museums and AV-repositories) is essential for making the DSA a viable option for such organizations and/or their repositories.

In addition, we recommend that the Board monitors implications of the introduction of the new certification requirements as of September 2016. As a contribution to this, the Dutch project group will collect and submit experiences of Dutch repositories from the cultural heritage domain.

In line with this, we recommend that the Board provides guidance on the alignment of the 'old' guidelines and the 'new' requirements for the DSA, preferably by mapping a comparison on its website. This is also meant to assist new applicants in retrieving existing, published evidence of DSA-certifications based on the 'old' guidelines for use in their applications under the new requirements.

Finally, that the Board will publish this report on the DSA-website and gives permission to disseminate it widely.

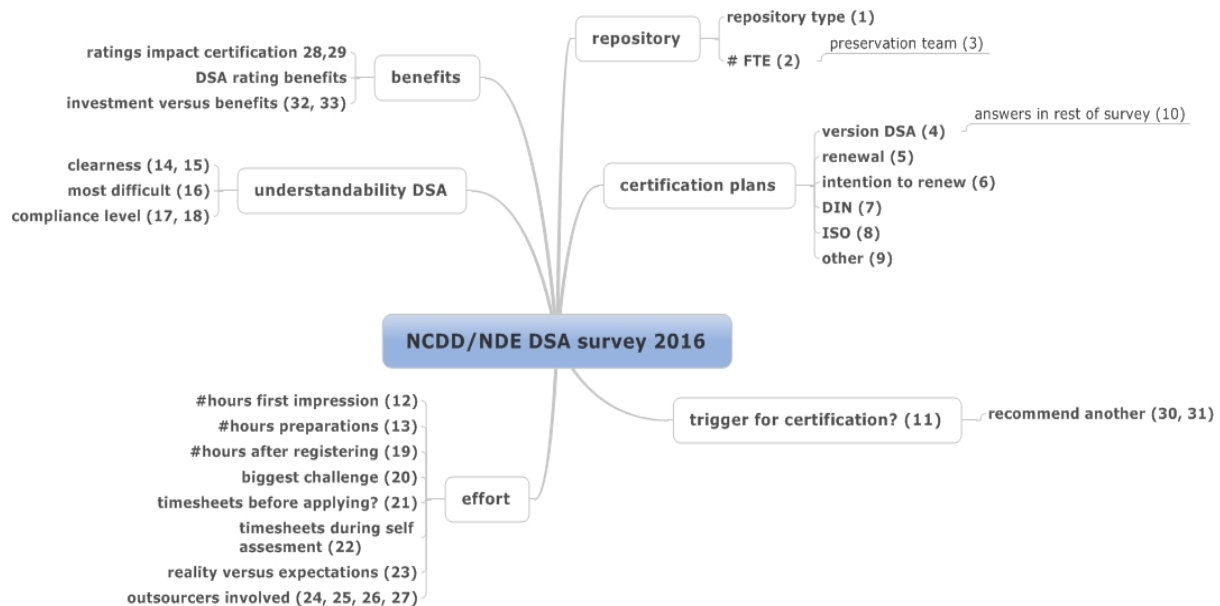
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6. Discussion of responses received, per group of questions

For the purpose of presenting and interpreting the outcomes of the survey we decided to cluster the questions and answers from groups I. through X. into six main subjects. These are presented in Figure 1, below.

Figure 1: Structure for presentation and analysis of survey results



The main subjects and related questions are:

1. Repository characteristics [Q1-3]
2. Certifications achieved and planned [Q4-10]
3. Trigger for certification [Q11]
4. Certification efforts [Q12-13, 19-27]
5. DSA comprehensibility [Q14-18]
6. Benefits of DSA-certification [Q28-33]

6.1. Repository characteristics [Q1-3]

Q1 enquired about the respondents' repository type.

All respondents (18) filled out his question; several chose more than one option.

The largest group consider themselves to be a *domain or subject-based repository* (9); the second-largest group chose *institutional repository* (6). Other chosen types were *library / museum / archive* (3), *national repository* and *research project repository* (both 2).

One respondent (additionally?) chose the option for 'Other' and identified the repository as a *university based social science research data service*.

No respondent considered themselves to be a *publication repository*.

>> We believe the reported emphasis on *domain or subject-based repository* and *institutional repository* is representative for the current DSA community. It says little, however, on the types of materials that the respondents' repositories have in their custody.

Q2 enquired about the number of staff employed by the repository (in fte's).

15 repositories responded; 3 skipped this question.

Apparently, this question was ambiguous: besides the 3 respondents who skipped the question, an additional 4 respondents gave incorrect or unclear information, and 1 stated they "don't know." We assume that one of the respondents who provided a mistaken number of 7,280 fte's actually reported the total number of staff hours / year. That number can be equated with 4 fte's.

>> If we include the latter response the average number of fte's comes to 5.4; all answers range between 1 and 12. One repository stated that it employed 0 fte's.

Q3 attempted to establish how many of the *total* number of employees worked *primarily* on preservation tasks.

16 repositories responded; 2 skipped this question.

The ambiguity contained in Q2 is repeated here, with a comparable number of incorrect or unclear answers.

If we make the same assumption as in the one case in Q2, we can conclude that

>> the average number of fte's that work *primarily* on preservation tasks comes to 1; all answers range between 0.2 and 10.

Observations on this subject, "Repository characteristics":

- *the majority of the respondents describe the type of their repository as domain or subject-based, or as institutional, which is representative for the current DSA community;*
- *they employ between 1 and 12 fte's, of which 0.2 to 10 fte's work primarily on preservation tasks. It is noteworthy that the average number of fte's that work primarily on preservation stands at 1;*
- *available human resources at the repositories are clearly modest in scope, although four repositories report that they employ more than 8 fte's;*
- *apparently, also repositories with limited human resources have been successful in applying for the seal.*

6.2. Certifications achieved and planned [Q4-10]

Q4 asked which version of the DSA the repositories first obtained (2010 or 2014-2015).

All 18 repositories responded.

Four indicated they had first obtained the 2010 version; all others (14) had first obtained the more recent version.

>> The responses are an indication of the larger uptake of this certification instrument in the DSA domains in recent years.

Q5 followed up on this and asked whether repositories had renewed their seal after having obtained their first DSA-certification.

All 18 repositories responded.

Four indicated they had indeed renewed their seal; all others had not yet done so.

>> Among these respondents, all repositories that had initially obtained the 2010 seal reported that they had since then also successfully applied for the newer version (2014-2015). This is in line with the DSA's renewal schedule.

Q6 asked about the repositories' intention to renew their DSA-certificate.

All 18 repositories responded.

All but one stated their intention to do so.

Q7 enquired about the respondents' attitude to applying for the more elaborate extended certification by means of nestor/DIN certification.

All 18 repositories responded.

All but two stated that they had not applied at this level and were not in process of doing so (also see one response to Q9).

Q8 further enquired about this subject by asking about the respondents' attitude to applying for certification at the highest level, full certification by means of ISO 16363 certification.

All 18 repositories responded.

None indicated that they had applied at this level or that they were in the process of doing so.

Q9 asked if the repositories were preparing for or working on other types of certification.

All 18 repositories responded.

The large majority of respondents (78%) reported negatively on this; of the remaining four, two specified that they had applied or were applying for the other type of basic or core certification (ICTU-WDS), one intended applying for a separate national (non-European) certification and one confirmed that it was exploring nestor/DIN.

Q10 asked for confirmation that respondents would supply information on their first, initial DSA-application.

All 18 repositories responded, and all responses were affirmative.

Observations on this subject, "Certifications achieved and planned":

- *responses confirm the larger uptake of DSA-certification in recent years;*
- *at least among the respondents in question, the need for continuous maintenance and renewal of the seal is an accepted practice;*
- *the same respondents show relatively little activities of stepping up their certification to a higher, more elaborate level;*
- *for the purposes of this survey, it was essential that all respondents indicated they would report on their experiences during their first application for the seal.*

6.3. Trigger for certification [Q11]

Q11 asked in an open-ended fashion what had prompted the respondents' interest in certification. 16 repositories responded; 2 skipped this question.

Some respondents provided multiple considerations (together, 16 respondents entered 21 responses).

From the wide array of the respondents' input, some main considerations can be distilled:

- one-third of the answers (7) indicate that the repositories were motivated by an existing, inherent recognition of the importance of continuous professionalization and quality assurance in their digital preservation remit;
- five answers derive from the repositories' recognition of the value of the DSA in showcasing their value as a trusted digital repository to stakeholders;
- another group of five answers indicate that the repository was already involved in the DSA's development or acted on an invitation by the DSA leadership;
- four additional answers indicate that the repository's interest was triggered by an internal directive (management) or an external obligation (e.g., condition for partnering in a research infrastructure, funding).

Observation on this subject, "Trigger for certification":

- *while the responses are varied, it is evident that the repositories were mostly triggered by a recognition that DSA-certification is a natural and appropriate instrument in (showcasing) their ongoing professionalization as trustworthy partners for long term digital preservation.*

6.4. Certification efforts [Q12-13, 19-27]

Q12 asked the respondents about their estimated time investments in getting a first impression of the DSA as a certification instrument.

17 repositories responded; 1 skipped this question.

The majority (65%) reported an estimated time investment of 10-20 hours; 3 chose the category 0-10 hours and 2 indicated 20-40 hours. A single respondent indicated a larger amount of time, 60 hours or more.

Q13 was a follow-up question, enquiring about the respondents' estimated subsequent time investments in preparing for the DSA procedure.

17 repositories responded; 1 skipped this question.

The majority (60%) reported a time investment of 50-100 or 100-200 hours; 4 chose the category 0-50, while 2 indicated larger investments (1 of 200-300 and 1 of 500 or more).

Q19 was follow-up question to Q12-13 and asked the respondents about their estimated time investment in the actual certification process (i.e., submission and peer review).

17 repositories responded; 1 skipped this question.

The majority (78%) reported a time investment of up to 50 or 50-100 hours⁵; 2 chose the category 100-200, while 2 estimated larger investments (1 of 200-300 and 1 of 500 or more).

Q20 asked about the respondents' biggest challenges in dealing with the peer reviewers' comments. 13 repositories responded; 5 skipped this question.

This question was primarily intended to identify (potentially) problematic aspects of the respondents' interaction with the peer reviewers. But most answers (8 out of 13) indicated that the respondents had in fact not encountered "challenges" or "problems."

Two answers indicated that the respondent had expected more feedback from the reviewers.

The two reported challenges actually do not relate directly to interaction with the reviewers. One is about vagueness of some guidelines, the other about difficulties in "getting the correct documentation in place."

Q21 enquired whether respondents had decided before applying to keep records of time investments by their staff.

16 repositories responded; 2 skipped this question.

All respondents indicated that they had not decided to do so.

Q22 was a follow-up question and asked if respondents had later decided to keep records of their staff's investments (during the self-assessment phase).

16 repositories responded; 2 skipped this question.

Four respondents indicated that they had indeed decided to do so at that later stage.

Q23 then asked whether the overall time investments by the respondents' organizations complied with or exceeded their expectations.

16 repositories responded; 2 skipped this question.

Responses were distributed quite evenly through the full range of potential answers. If we leave out the three respondents who reported that they had no preconceived expectations on this issue, the largest subgroup (6) indicate they had underestimated the required investments, a smaller subgroup (4) had correctly estimated this aspect and the smallest group (3) had overestimated the required investments.

Q24-27 were intended to enquire about the repositories' use of external or third parties for outsourcing (part of) the fulfillment of DSA guidelines.

17 repositories responded; 1 skipped this question.

All respondents indicated in the initial **Q24** that they had not contracted with such parties. This seems to be in contradiction with the repositories' limited internal human resources reported in Q3. But it is quite possible that repositories did in fact outsource IT-components for fulfilling the guidelines, but did not label such contracts as pertaining to preservation or certification.

Q25-27 were subsequently skipped by all respondents.

⁵ The 78% includes a correction by one of the respondents, entered in subsequent Q20. There, the respondent indicated that s/he had chosen 50-100 in Q19, whereas up to 50 was the intended reply.

Observations on this subject, “Certification efforts”:

- for developing a first impression of the DSA, most respondents estimated a time investment of 1-20 hours;
- for preparations for the DSA procedure, most respondents estimated a time investment of 50-100 or 100-200 hours;
- for the actual certification process, most respondents estimated a time investment of up to 50 or 50-100 hours;
- none of the respondents had decided beforehand to keep a record of time investments, but four out sixteen decided to do so at a later stage;
- some repositories had no preconceived idea of the required investments; the remaining ones varied widely in their evaluation of expected time investments vs. actual investments. The largest group of these (6 out of 13) indicated they had underestimated the required investments;
- we expected that a potential source for higher time investments than expected might be the interactions with the peer reviewers, but most respondents indicated that they had not experienced problems in this regard (8 out of 13);
- for a brief discussion of the poor response rate of Q24-27 please see the preceding section ‘Comprehensibility of the questions.’

6.5. DSA comprehensibility [Q14-18]

Q14 queried the repositories about their opinion regarding clarity and straightforwardness of the DSA Guidelines.

17 repositories responded; 1 skipped this question.

The majority of the respondents (65%) rated these aspects of the Guidelines as “adequate-excellent.” A considerably smaller subgroup (4) rated these as “adequate,” and the smallest group of respondents (2) opted for “poor-adequate.” No respondent chose “poor” or “excellent.”

Q15 was a follow-up question for those respondents who had chosen “poor” or “poor-adequate” in Q14.

One of the two respondents in this category (“poor-adequate”) reported repetitive questions, and an application form (self-assessment) that is too long and takes too much time to complete. The other remarks that the guidelines apply primarily to data archives and “translate less well” to dedicated data repositories of research organizations or projects.

Q16 was an open-ended question, inviting repositories to identify the guidelines that they found most difficult to comply with.

13 repositories responded; 5 skipped this question.

The respondents’ answers list almost every guideline that was in force at the time this report was compiled. Yet, most guidelines appear only once in this listing.

A few guidelines were mentioned more than once:

- guidelines 1-3 (re: data producers) and 14-16 (re: data consumers) each appear three times. From the answers we can deduce that these guidelines proved problematic because repositories had no policies or regulations in place to regulate their relations to these

audiences prior to the DSA self-assessment. In addition, two respondents found guidelines 14-16 repetitive.

- guideline 7 (preservation plan) also appears three times. Again, the challenge for the repositories derived from the fact that this element proved to be demanding in their efforts to assemble sufficient evidence for the peer review.
- in this respect it is noteworthy that only one respondent specifically mentions guideline 4 (succession plan): adequate succession arrangements are often cited among the most difficult challenges for a repository in documenting its sustainability.
- three respondents submitted general remarks on all guidelines, instead of particular ones. Two cited repetitiveness of requests for documentation under various guidelines; one complained of the overly “bureaucratic” nature of the requested documentation.

Q17 queried the repositories about their opinion regarding clarity and straightforwardness of the compliance level definitions in the DSA Guidelines.

17 repositories responded; 1 skipped this question.

The vast majority of the respondents (94%) rated these aspects of the Guidelines as “adequate” or “adequate-excellent.” One respondent chose “excellent”; none opted for “poor” or “poor-adequate.”

As a consequence, none of the respondents made a suggestion for improvement in **Q18**.

Observations on this subject, “DSA comprehensibility”:

- *the majority of respondents rated clarity and straightforwardness of the DSA Guidelines as “adequate-excellent.”*
- *the two respondents who had rated these aspects as “poor-adequate” complained of repetitive questions, an overly long application form and of the problematic application of the guidelines outside of the domain of data archives;*
- *respondents were more positive about the clarity and straightforwardness of the compliance level definitions in the guidelines;*
- *when asked to identify DSA Guidelines they found most difficult to comply with, respondents listed every guideline in separate comments – but most guidelines appeared in those comments only once. The main reason was that they could “not yet” comply with a given guideline because no preservation plan, no written workflow or no policy for acceptance of file formats was in place at that moment. Apparently they improved the required documentation during the certification process.*

6.6. Benefits of DSA-certification [Q28-33]

Q28 asked the repositories to rate the benefits of DSA-certification, as propagated on the DSA-website (<http://www.datasealofapproval.org/en/assessment/benefits/>).

17 repositories responded; 1 skipped this question.

The five possible ratings were: negligible, limited, satisfactory, considerable and essential (each benefit could receive only one rating).

| <i>DSA-suggested benefits</i> | <i>rated most often as</i> |
|--|----------------------------|
| - stakeholder confidence | considerable |
| - improvements in communication | satisfactory |
| - improvement in processes | satisfactory |
| - transparency | considerable and essential |
| - differentiation from others | considerable |
| - awareness raising about digital preservation | considerable |

Clearly, the DSA-propagated benefit of enhanced “transparency” was rated with the highest significance (8 times as “essential” and 8 times as “considerable”). An *internal* benefit received the highest number of ratings as “considerable” (12): “awareness raising about digital preservation.” Two other benefits that were highly rated are of a more *external* nature: “stakeholder confidence” received 9 ratings as “considerable,” and seven respondents rated “differentiation from others” as a “considerable” benefit.

It is noteworthy that one respondent rated the beneficial effects on “stakeholder confidence” as negligible.

Q29 was an extension, asking repositories to rate the impact of DSA-certification on various aspects of their own organization and repository.

16 repositories responded; 2 skipped this question.

The five possible ratings were: negligible, limited, satisfactory, considerable and essential (each benefit could receive only one rating).

| <i>Presented aspects</i> | <i>impact rated most often as</i> |
|--|-----------------------------------|
| - management’s recognition of the value of long-term preservation and sustained availability of digital assets | considerable |
| - digital preservation policies | considerable |
| - technical digital preservation practices | considerable |
| - financial planning | negligible and satisfactory |
| - allocation of financial resources | negligible and satisfactory |
| - allocation of staff | satisfactory |
| - your reputation: did DSA-certification enhance your professional reputation? | considerable and essential |
| - capacity to attract data producers | considerable |
| - capacity to attract data consumers | satisfactory and considerable |
| - capacity to participate in funding applications | considerable and essential |

Respondents clearly indicate the greatest impact in the area of “digital preservation policies” and “technical digital preservation practices.” Also, the impact on the organization’s professional reputation was rated as “considerable” and “essential.” These ratings confirm the areas where DSA-certification intends to have its strongest impact: by imposing structured, professional and community-driven expectations (guidelines or requirements) on the applicants’ policies and work

processes, DSA-certification guides and encourages organizations to describe, document, improve and monitor their essential preservation tasks.

Reportedly, the impact was much smaller in the area of “financial planning” and “allocation of financial resources.” Still, the impact on “allocation of staff” was predominantly rated as “satisfactory.”

Q30 asked if the respondents would recommend this type of certification to others within their domain.

17 repositories responded; 1 skipped this question.

The vast majority of the respondents (88%) answered affirmatively; they were either ‘certainly’ (9) or ‘very likely’ (6) willing to do so.

Q31 then asked for their motivation in doing so.

16 repositories responded; 2 skipped this question.

The strong response rate at this question and the extensive feedback submitted by the respondents is a clear indication of the willingness of these members of the DSA-community to explain how they had perceived and experienced the benefits of this type of certification.

- 11 comments show that these respondents recognize the importance of the DSA as a method to sustain and develop their *quality assurance* efforts. Quotes along these lines include:
“it is a tool to raise awareness within the institution about the importance of developing sound and structural policies as regards management, dissemination and preservation of digital objects in an accountable way,”
“it is an instrument for reviewing internal procedures, transparency and awareness”
and
“it allows for a reflective assessment of current practices and workflows which has had a significant benefit to the way we work.”
- 9 comments refer explicitly to the value of the seal as a ‘badge of maturity’ to *showcase to external stakeholders and colleagues*. Quotes along these lines include:
“for us, it was the best way of meeting demands from funding organizations,”
“with a DSA you demonstrate to stakeholders that you are [...] promoting good practice in research data management” and
“it is a public pronouncement [...] to demonstrate reliable and trusted access to managed research data for the academic community both now and in the future.”

Various comments signaled that the application functioned as a *conversation starter* at various levels within the organization.

One respondent wanted to point out that s/he did encounter some pitfalls – without specifying them. No other negative comments were logged.

Q32 asked respondents to rate the ratio between their investments in DSA-certification and its benefits to the organization.

17 repositories responded; 1 skipped this question.

The responses read like a veritable advertisement for DSA-certification: the majority of the respondents (76%) rated this ratio as “adequate-rewarding” (7) to “rewarding-excellent” (6). While

one respondent opted for the more negative appraisal of “adequate,” three others opted for the most positive rate of “excellent.”

Q33 was the final question, asking for ‘lessons learned’ or other experiences that respondents would consider relevant for future applicants for (the new) DSA-certification.

10 repositories responded; 8 skipped this question.

The fact that more than half of the participants (10 out of 18, or 56%) took time to describe their experiences and make recommendations is an indication of strong community sentiments among the respondents.

While three respondents took the opportunity to place critical remarks (on two guidelines; on the repetitive nature of the requested documentation; and on the submission tool) the others provided quite balanced reviews. The main gist of such contributions can perhaps best be characterized by using one quote:

“it takes time to complete [but it] allows the repository to assess where they are and where they want to go.”

Another participant listed the “lessons learned,” as suggested in the question: assemble and maintain documentation from the start; good preparation pays off; and a call to reach out to colleagues in order to avoid going through the process in an isolated way.

Observations on this subject, “Benefits of DSA-certification”:

- *asked to rate the benefits of DSA-certification, as propagated on the DSA-website, respondents clearly subscribed to these, scoring all between “satisfactory” and “essential”;*
- *participants rated the impact of DSA-certification on a range of aspects of their organization / repository in a more varied manner. Some aspects were rated even more positively, scoring more often as “considerable” and “essential” (preservation policies and practices). Others were far less recognized as having been impacted in this fashion, particularly so in the field of financial planning and allocation of financial resources (between “negligible” and “satisfactory”);*
- *when queried about their willingness to recommend DSA-certification to their peers, the vast majority of the respondents answered affirmatively;*
- *when asked why they would be willing to do, most comments characterized the DSA as an instrument to buttress quality assurance efforts. Another strand of motivations related to the quality of the seal as a sign of professional maturity to be showcased to stakeholders and colleagues;*
- *the majority of the respondents rated the ratio between investments and benefits as “adequate-rewarding” to “rewarding-excellent”;*
- *when asked, in the final question, for “lessons learned” or other relevant experiences to pass on to future DSA-applicants, the respondents’ input showed a high level of community sentiment. Most provided a balanced review of their overall experience, placing the required levels of investment on at least an equal footing with the perceived and reported benefits. Key words in respondents’ final remarks hovered around the need for thorough documentation and preparation, significant contributions to professional accomplishment and a tangible boost to quality assurance in the respondents’ work.*

Annex 1. Introduction to the survey, questions, response modules

Introduction

The aim of this survey is to collect experiences from organizations that have acquired accreditation as a Trusted Digital Repository (TDR) by means of a Data Seal of Approval - DSA. Your input is essential for informing other organizations that consider applying for DSA-certification, or the upcoming DSA|WDS-certification.

With this survey, approved by the DSA Board, we aim to collect pertinent information on the relationships between costs (investments) and gains (benefits) when organizations prepare for and go through the process of self-assessment and DSA-review.

Filling out this online questionnaire will take about 20 minutes depending on how much information you have readily at hand. You may always leave the survey temporarily and recommence later. The information you supply will be kept anonymous, processed and reported in a way that is not attributable to any specific repository.

This survey is developed by a Dutch project team. The Dutch Department of Education, Culture and Science has released a national strategy for digital cultural heritage. This strategy is being developed in a national programme: the Network Digital Heritage. Our project aims to promote DSA-certification in the Netherlands, beyond the domain of (scientific) data archives. We will compile a report (in English) with our key findings, that will be sent to you and will be distributed through DSA channels and the Dutch project.

Also on behalf of the DSA Board, we thank you for sharing your experiences, helping your peers in the domain of digital (cultural) heritage in preparing for DSA(WDS)-certification of their repositories.

We kindly ask that you fill out the survey before Monday, April 18, 2016.

If you have any questions or concerns, please contact Kees Waterman at kees.waterman@dans.knaw.nl

I. As background information, we would like to collect some basic characteristics.

1. What is your repository type? (multiple answers possible)

- Domain or subject-based repository
- Institutional repository
- National repository, including governmental
- Publication repository
- Library / Museum / Archives
- Research project repository

Other (please specify)

2. What is the total number of fte's that you employ?

3. How many of these fte's work primarily on preservation tasks?

II. Your certification

4. What version the DSA-certificate did you (first) obtain?

- 2010
- 2014-2015

5. Have you renewed the DSA-certificate since then?

- yes
- no

6. Do you intend to renew your DSA-certificate?

- yes
- no

7. Have you applied / are you applying for DIN-certification since obtaining the DSA?

- yes
- no

8. Have you applied / are you applying for ISO-certification (ISO 16363) since obtaining the DSA?

- yes
- no

9. Have you applied / are you applying for any other type of certification since obtaining the DSA – such as ICSU-WDS? Please specify.

- yes
- no

If yes, please specify:

Which DSA-experience will you describe?

We are primarily interested in your experiences during your first DSA-application, self assessment and review. Those will be of most interest to the organizations that we will inform of the outcomes of this survey.

However, your first DSA-application may be too long ago for you to retrieve relevant information. In that case, we ask that you please provide information on your later, subsequent DSA-application.

Please limit your information to the one scenario you select in question 10, below.

10. In filling out the remainder of this survey, do you supply information on your first, initial DSA-application?

- Yes, this concerns our **first** DSA-application.
- No, this concerns our **second** DSA-application.

III. Your orientation phase

11. What prompted your organization's initial interest in certification?

12. How many hours do you estimate your organization invested in getting a first impression of the certification instrument and its procedures?

- 0-10
- 10-20
- 20-40
- 50-60
- 60 or more

IV. Your preparatory phase (self assessment)

13. How many hours do you estimate your organization invested in preparing for the certification procedure?

- up to 50
- 50-100
- 100-200
- 200-300
- 300-500
- 500 or more

14. Overall, how would you rate the clarity and straightforwardness of the DSA Guidelines?

- Poor
- Poor-adequate
- Adequate
- Adequate-excellent
- Excellent

15. If 'Poor' or 'Poor-adequate', do you have any suggestions to improve clarity and straightforwardness of the Guidelines?

16. Which of the Guidelines did you find most difficult to comply with? Please provide the appropriate Guideline number(s), 1-16, and a brief explanation.

17. Overall, how would you rate the clarity and straightforwardness of the compliance level definitions that come with the DSA Guidelines?

- Poor
- Poor-adequate
- Adequate
- Adequate-excellent
- Excellent

18. If 'Poor' or 'Poor-adequate', do you have any suggestions to improve clarity and straightforwardness of the compliance level definitions?

V. Your application and the review process

19. After you registered as a DSA-applicant, how many hours do you estimate your organization invested in the actual certification process (peer review)?

- up to 50
- 50-100
- 100-200
- 200-300
- 300-500
- 500 or more

20. What were your biggest challenge in working with the reviewer's comments?

VI. Investments & outsourcing

21. Did you decide before applying that you would keep records of you staff's investments of time?

- yes
 no

22. Did you decide during the self-assessment phase that you would keep records of you staff's investments of time?

- yes
 no

23. Overall, did your organization's actual investment of resources comply with or exceed your expectations?

- we had no pre-conceived expectations
 we underestimated the required investments
 we correctly predicted the required investments
 we overestimated the required investments

24. DSA allows for outsourcing to fulfill Guidelines. Did you in fact contract with external/third parties during the certification process that invoiced you for their services?

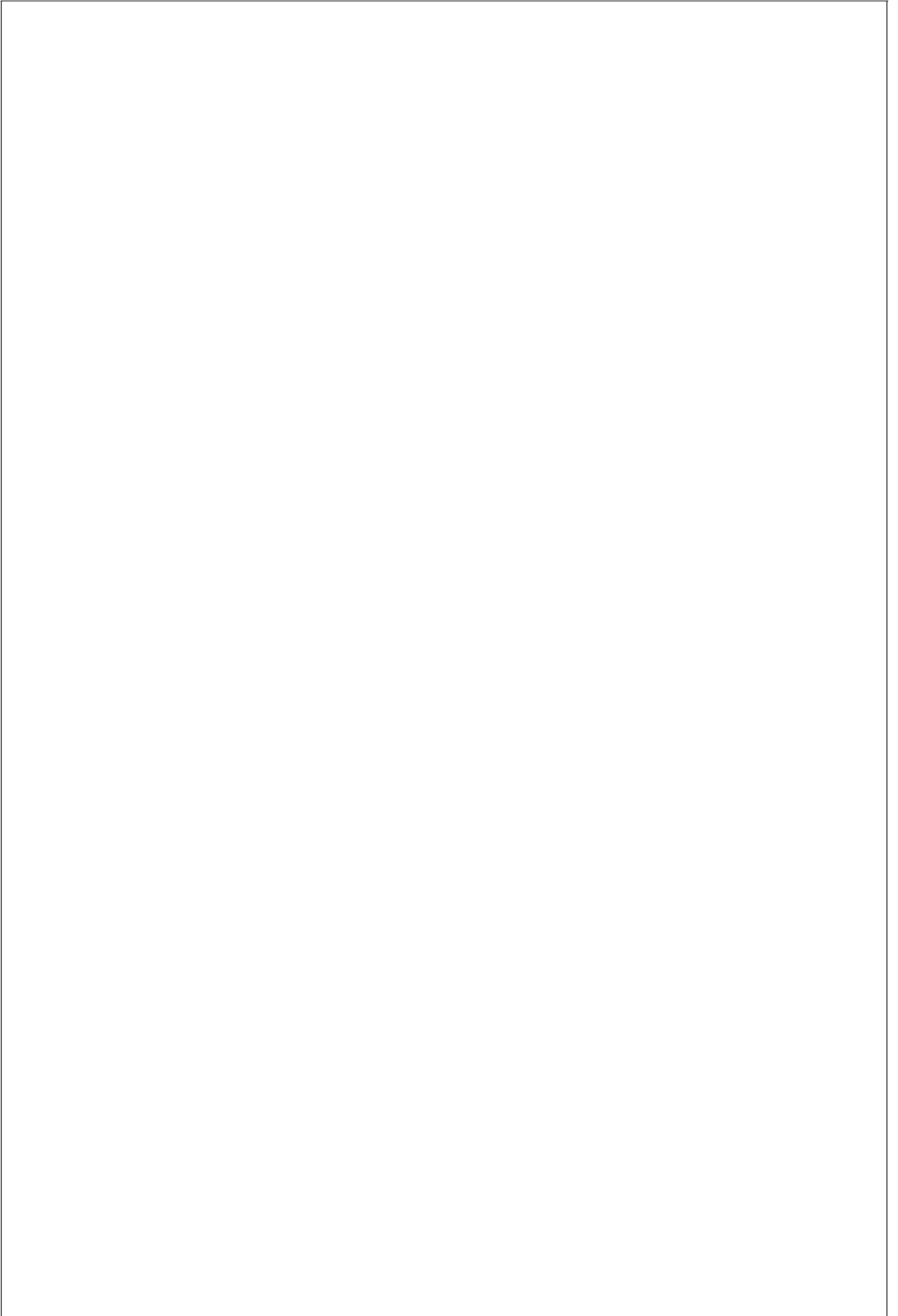
- yes
 no

25. If yes, was this for: (you can give multiple answers)

- preparing for the application
 responding to the peer reviewer's concerns
 outsourcing long-term preservation services

26. If yes, how easily could you identify (trusted) third parties to use for outsourcing?

27. If yes, how easily could you agree on the contracted activities of the (trusted) third parties?



VII. Benefits

Overall, how would you rate the following potential benefits of DSA-certification as they worked out for your organization?

These elements are based on the DSA's listing at <http://www.datasealofapproval.org/en/assessment/benefits/>

28. Please enter your rating

| | Negligible | Limited | Satisfactory | Considerable | Essential |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Stakeholder confidence | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Improvements in communication | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Improvement in processes | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Transparency | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Differentiation from others | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Awareness raising about digital preservation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

VIII. Impact on your own organization

Could you rate the impact of the certification process on your organization and repository for the following aspects, where 1 = negligible and 5 = essential.

29. Please enter your rating:

| | 1 - negligible | 2 | 3 | 4 | 5 - essential |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| management's recognition of the value of long-term preservation and sustained availability of digital assets? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| digital preservation policies | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| technical digital preservation practices | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| financial planning | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| allocation of financial resources | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| allocation of staff | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| your reputation: did DSA-certification enhance your professional reputation? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| your capacity to attract data producers | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| your capacity to attract data consumers | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| your capacity to participate in funding applications | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

30. Would you recommend DSA-certification to other organizations in your domain?

| no | unlikely | possibly | likely | very likely | yes, certainly |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

31. Can you explain why?

IX. Overall investments and benefits

32. On the whole, how would you rate the ratio between investments in and benefits of DSA-certification for your organization?

- poor
- poor-adequate
- adequate
- adequate-rewarding
- rewarding-excellent
- excellent

X. Additional considerations for potential future applicants.

This the final, open question in the survey.

We greatly appreciate your time and efforts!!

33. Are there additional experiences or 'lessons learned' that you think are important to present to future DSA or DSA|WDS applicant organizations?

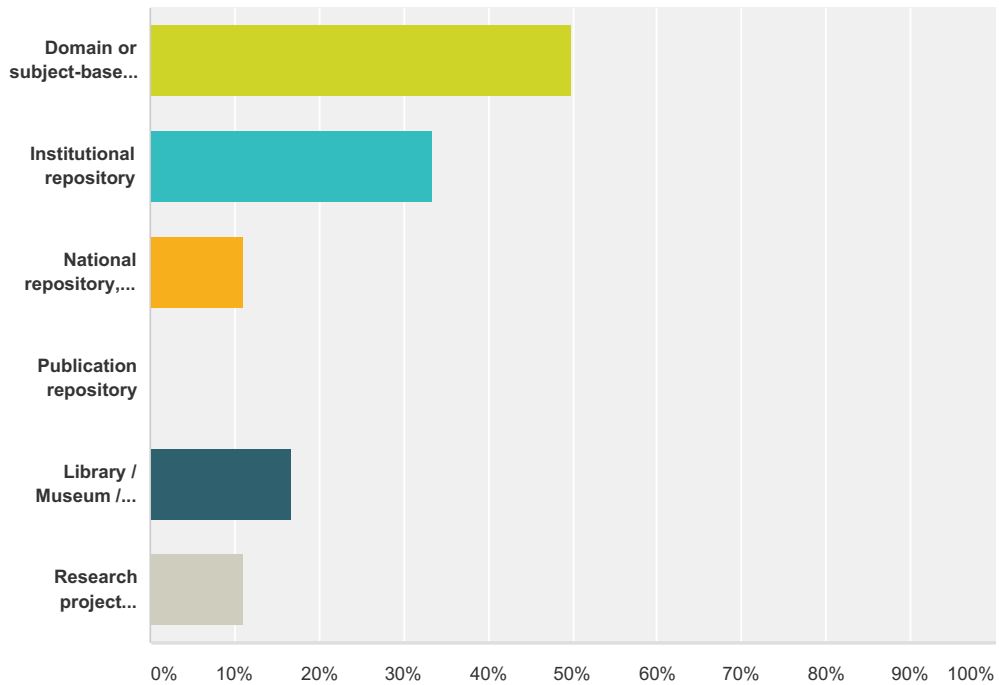
Your suggestions matter!



Annex 2. Full export of responses received, including graphs

Q1 What is your repository type? (multiple answers possible)

Answered: 18 Skipped: 0



| Answer Choices | Responses |
|---|-----------|
| Domain or subject-based repository | 50.00% 9 |
| Institutional repository | 33.33% 6 |
| National repository, including governmental | 11.11% 2 |
| Publication repository | 0.00% 0 |
| Library / Museum / Archives | 16.67% 3 |
| Research project repository | 11.11% 2 |
| Total Respondents: 18 | |

| # | Other (please specify) | Date |
|---|---|-------------------|
| 1 | University based Social Science Research Data Service | 4/4/2016 10:45 AM |

DSA-experiences: help your peers!

Q2 What is the total number of fte's that you employ?

Answered: 15 Skipped: 3

| # | Responses | Date |
|----|---|--------------------|
| 1 | 80 | 4/18/2016 12:52 PM |
| 2 | 9 | 4/15/2016 3:43 PM |
| 3 | 1 | 4/15/2016 2:28 PM |
| 4 | This question is ambiguous. If you mean in the repository team, we are 5FTE | 4/8/2016 9:40 AM |
| 5 | 12 | 4/7/2016 9:26 AM |
| 6 | 7280 per annum | 4/4/2016 10:45 AM |
| 7 | 600 | 3/31/2016 4:16 PM |
| 8 | Don't know | 3/31/2016 12:46 PM |
| 9 | 11 | 3/31/2016 9:55 AM |
| 10 | 0 | 3/29/2016 6:10 PM |
| 11 | 8 | 3/23/2016 8:21 PM |
| 12 | 5.5 | 3/23/2016 3:58 PM |
| 13 | 2 | 3/23/2016 3:55 PM |
| 14 | 6 in preservation team | 3/23/2016 1:32 PM |
| 15 | 104 | 3/23/2016 1:05 PM |

DSA-experiences: help your peers!

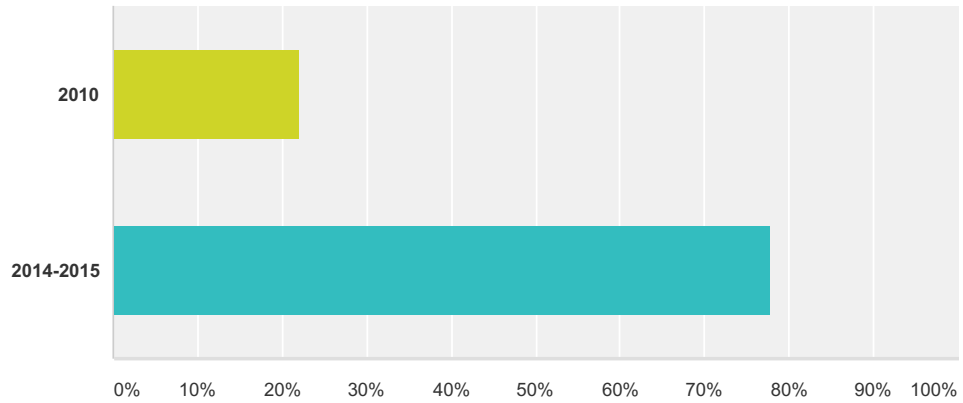
Q3 How many of these fte's work primarily on preservation tasks?

Answered: 16 Skipped: 2

| # | Responses | Date |
|----|--|--------------------|
| 1 | 5 | 4/18/2016 12:52 PM |
| 2 | 1 | 4/15/2016 3:43 PM |
| 3 | 0,2 | 4/15/2016 2:28 PM |
| 4 | 2,4 fte | 4/15/2016 12:28 PM |
| 5 | None, preservation tasks are primarily a responsibility of another department in the institution | 4/8/2016 9:40 AM |
| 6 | 10 | 4/7/2016 9:26 AM |
| 7 | 5720 | 4/4/2016 10:45 AM |
| 8 | 50 | 3/31/2016 4:16 PM |
| 9 | 0.3 | 3/31/2016 12:46 PM |
| 10 | 4 | 3/31/2016 9:55 AM |
| 11 | 0 | 3/29/2016 6:10 PM |
| 12 | 4 | 3/23/2016 8:21 PM |
| 13 | 1 | 3/23/2016 3:58 PM |
| 14 | 0.5 | 3/23/2016 3:55 PM |
| 15 | 5 | 3/23/2016 1:32 PM |
| 16 | 4 | 3/23/2016 1:05 PM |

Q4 What version the DSA-certificate did you (first) obtain?

Answered: 18 Skipped: 0

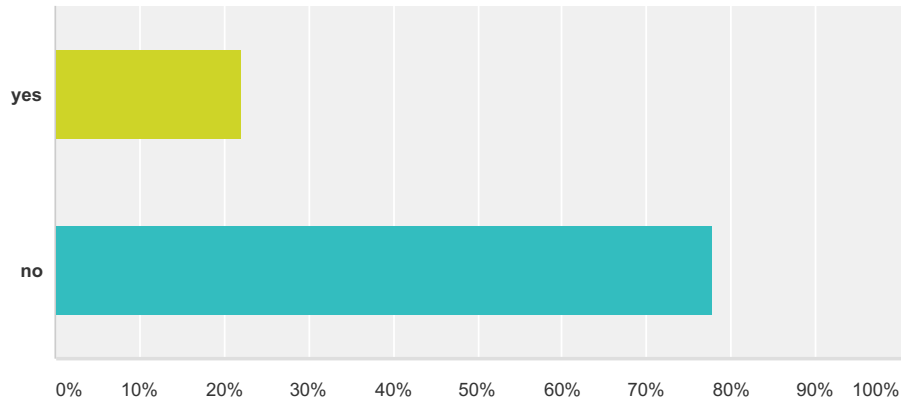


| Answer Choices | Responses |
|----------------|-----------|
| 2010 | 22.22% 4 |
| 2014-2015 | 77.78% 14 |
| Total | 18 |

DSA-experiences: help your peers!

Q5 Have you renewed the DSA-certificate since then?

Answered: 18 Skipped: 0

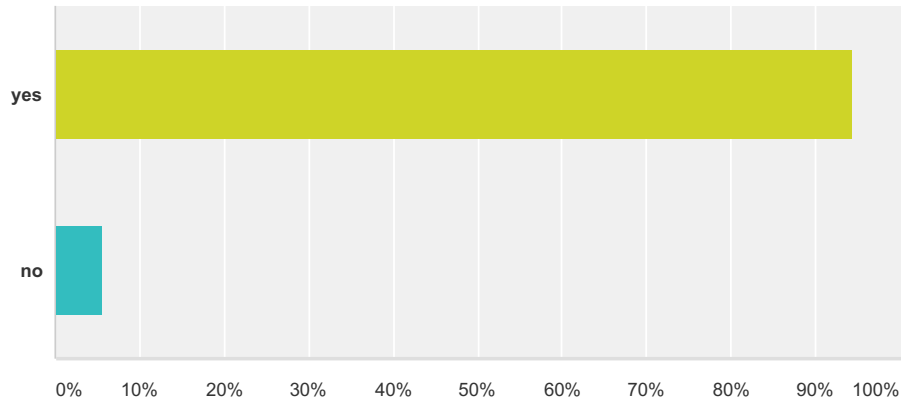


| Answer Choices | Responses | |
|----------------|-----------|-----------|
| yes | 22.22% | 4 |
| no | 77.78% | 14 |
| Total | | 18 |

DSA-experiences: help your peers!

Q6 Do you intend to renew your DSA-certificate?

Answered: 18 Skipped: 0

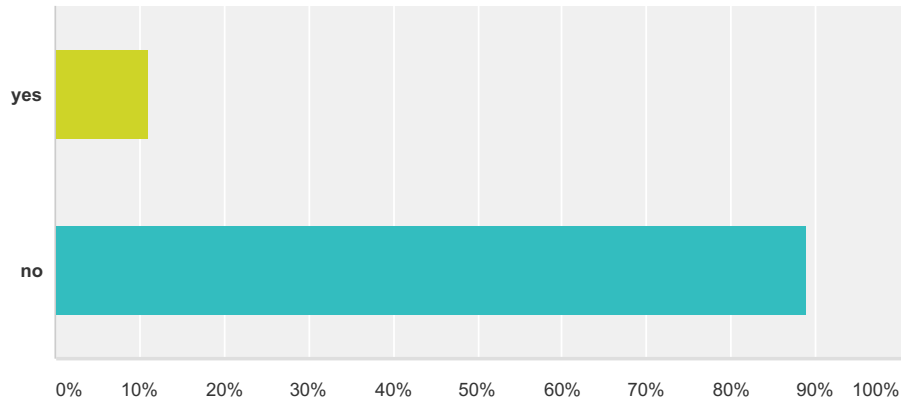


| Answer Choices | Responses |
|----------------|-----------|
| yes | 94.44% 17 |
| no | 5.56% 1 |
| Total | 18 |

DSA-experiences: help your peers!

Q7 Have you applied / are you applying for DIN-certification since obtaining the DSA?

Answered: 18 Skipped: 0

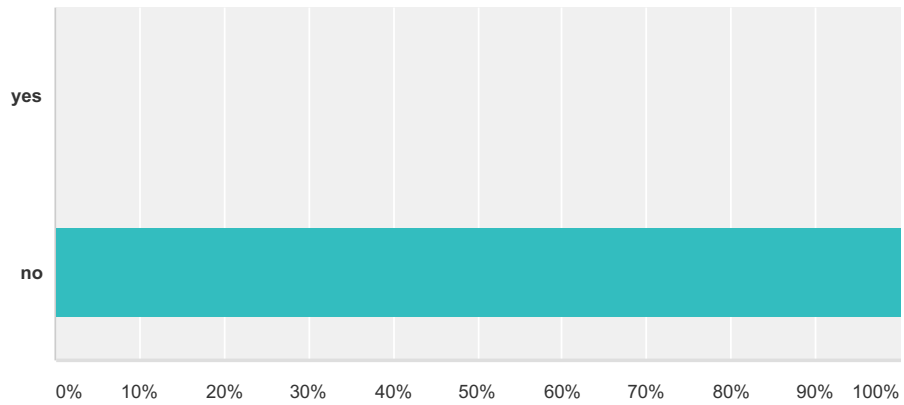


| Answer Choices | Responses | |
|----------------|-----------|-----------|
| yes | 11.11% | 2 |
| no | 88.89% | 16 |
| Total | | 18 |

DSA-experiences: help your peers!

Q8 Have you applied / are you applying for ISO-certification (ISO 16363) since obtaining the DSA?

Answered: 18 Skipped: 0

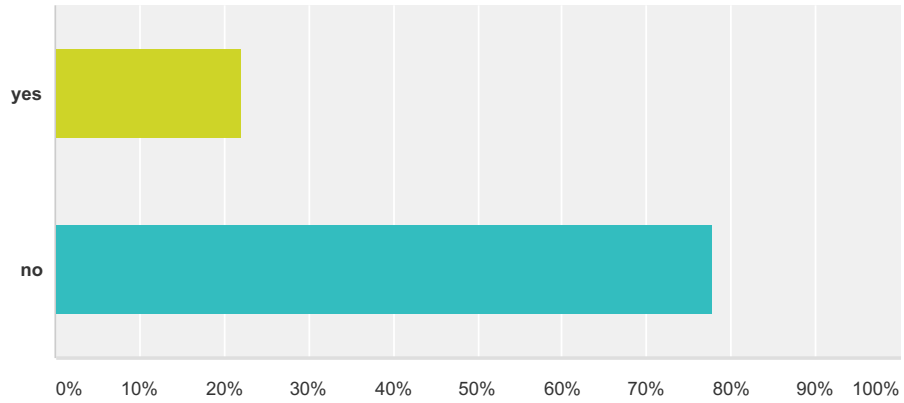


| Answer Choices | Responses |
|----------------|------------|
| yes | 0.00% 0 |
| no | 100.00% 18 |
| Total | 18 |

DSA-experiences: help your peers!

Q9 Have you applied / are you applying for any other type of certification since obtaining the DSA – such as ICSU-WDS? Please specify.

Answered: 18 Skipped: 0



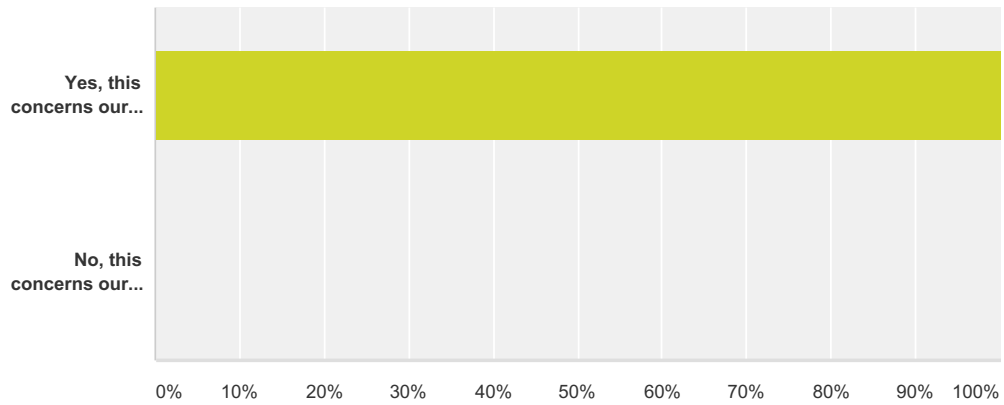
| Answer Choices | Responses |
|----------------|-----------|
| yes | 22.22% 4 |
| no | 77.78% 14 |
| Total | 18 |

| # | If yes, please specify: | Date |
|---|--|--------------------|
| 1 | ICSU-WDS | 4/4/2016 10:45 AM |
| 2 | ICSU-WDS and am considering the new DSA-WDS. | 3/31/2016 4:17 PM |
| 3 | Investigating NESTOR accreditation | 3/31/2016 10:02 AM |
| 4 | We will be applying for a national repository program; the program is not yet live, but criteria are being worked on | 3/29/2016 6:11 PM |

DSA-experiences: help your peers!

Q10 In filling out the remainder of this survey, do you supply information on your first, initial DSA-application?

Answered: 18 Skipped: 0



| Answer Choices | Responses |
|---|------------|
| Yes, this concerns our first DSA-application. | 100.00% 18 |
| No, this concerns our second DSA-application. | 0.00% 0 |
| Total | 18 |

DSA-experiences: help your peers!

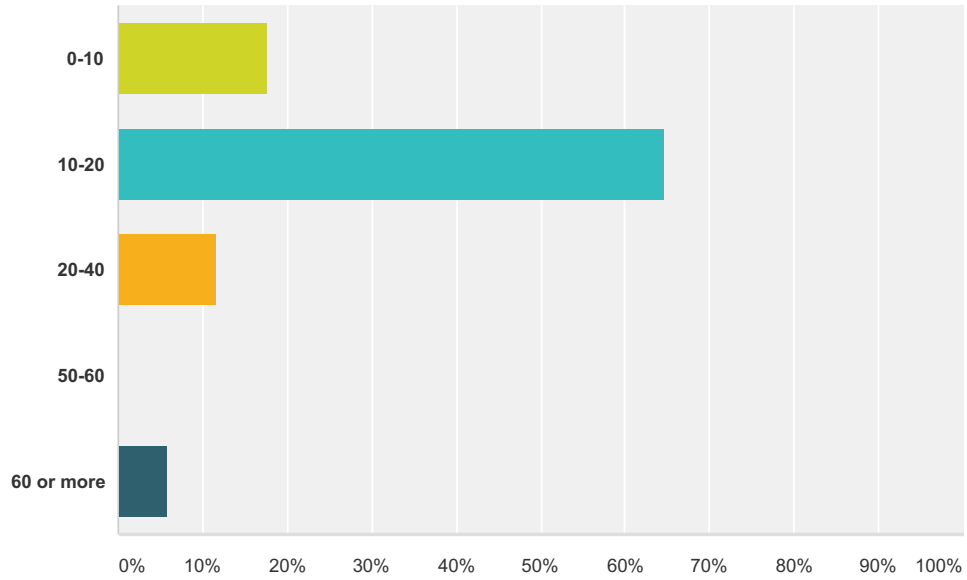
Q11 What prompted your organization's initial interest in certification?

Answered: 16 Skipped: 2

| # | Responses | Date |
|----|--|--------------------|
| 1 | Involvement with the design of the standard | 4/18/2016 12:52 PM |
| 2 | An individual on the DSA board reached out to our Archive Director and asked if we were interested in applying. We had already been interested in becoming certified to display our trustworthiness to our clients. This personal invitation/request ultimately helped motivate us to undertake certification. | 4/17/2016 4:05 PM |
| 3 | A member of the DSA leadership encouraged us to apply for DSA certification | 4/15/2016 3:45 PM |
| 4 | Main reasons: As an organisation dedicated to preserving digital data, the status of a Trusted Digital Repository is important to us. We started a national consortium which is a collaboration of trusted digital repositories. | 4/15/2016 12:28 PM |
| 5 | This was an effort to level up the quality of the repository and provide a better service for the institutional constituencies and broad end-user community. We have been increasingly working on quality issues in the repository for the last 5 years. | 4/8/2016 9:44 AM |
| 6 | It is a good opportunity to evaluate your existing workflows. It is also helpful for improving your services and also to show to all stakeholders that we are a trusted digital archive. | 4/7/2016 2:35 PM |
| 7 | CESSDA Trust Project | 4/7/2016 9:28 AM |
| 8 | Our DSA application was motivated by a need to assess the quality of our Research Data Service | 4/4/2016 10:47 AM |
| 9 | Recognition that such a certification should be pursued to determine if we are operating at the professional level expected of us. | 3/31/2016 4:18 PM |
| 10 | Requirement for funding | 3/31/2016 12:48 PM |
| 11 | Awareness when DSA guidelines first drafted (2008), but applied later (2010) once the guidelines and assessment process had become firmly established. | 3/31/2016 10:08 AM |
| 12 | The repository manager coordinates the project to conform an university-wide network of repositories, and is interested in knowing and promoting guidelines that ensure proper operation. | 3/29/2016 6:13 PM |
| 13 | DSA certification is a condition for CLARIN Center-B status | 3/23/2016 8:23 PM |
| 14 | To be able to showcase to stakeholders that we take preservation seriously and that by gaining trusted repository status researchers can be confident that their research output is reliably and systematically stored and curated. | 3/23/2016 4:13 PM |
| 15 | Suggested by Senior Management | 3/23/2016 3:57 PM |
| 16 | improvement of our processes quality assurance for our digital archive | 3/23/2016 1:34 PM |

Q12 How many hours do you estimate your organization invested in getting a first impression of the certification instrument and its procedures?

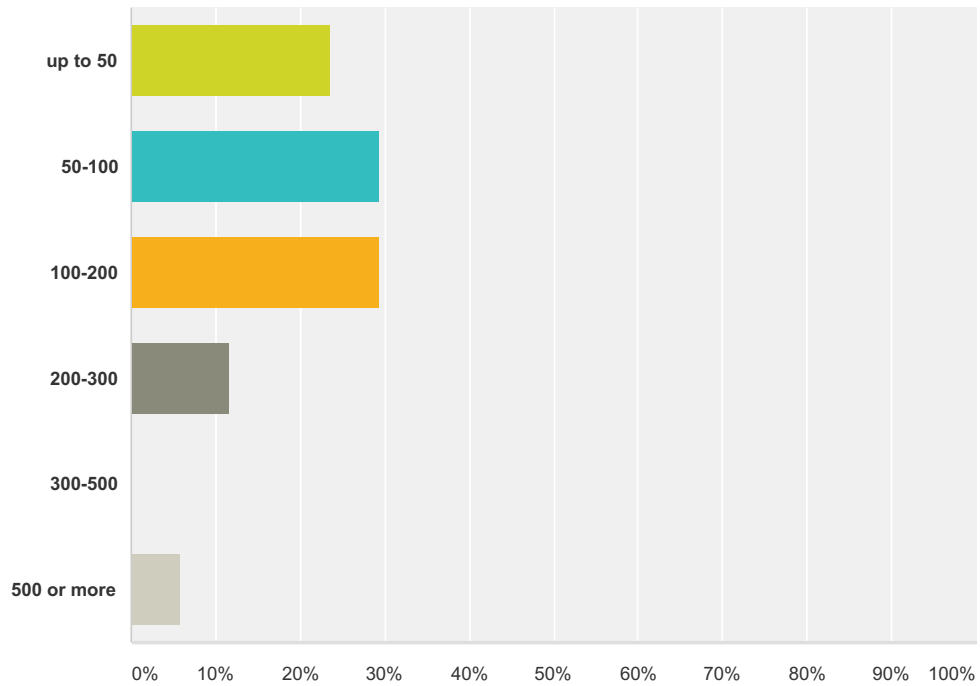
Answered: 17 Skipped: 1



| Answer Choices | Responses |
|----------------|-----------|
| 0-10 | 17.65% 3 |
| 10-20 | 64.71% 11 |
| 20-40 | 11.76% 2 |
| 50-60 | 0.00% 0 |
| 60 or more | 5.88% 1 |
| Total | 17 |

Q13 How many hours do you estimate your organization invested in preparing for the certification procedure?

Answered: 17 Skipped: 1

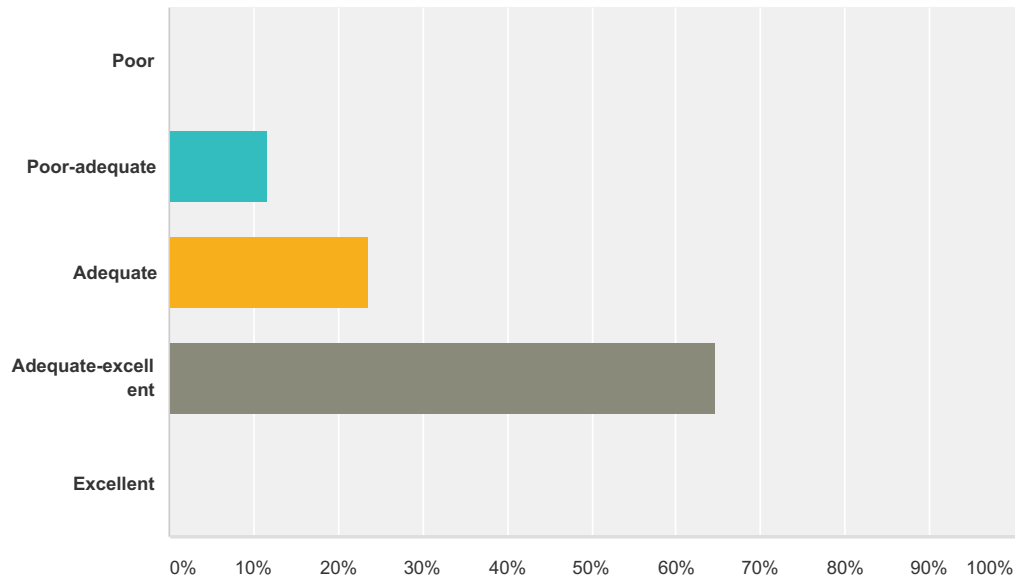


| Answer Choices | Responses |
|----------------|-----------|
| up to 50 | 23.53% 4 |
| 50-100 | 29.41% 5 |
| 100-200 | 29.41% 5 |
| 200-300 | 11.76% 2 |
| 300-500 | 0.00% 0 |
| 500 or more | 5.88% 1 |
| Total | 17 |

DSA-experiences: help your peers!

Q14 Overall, how would you rate the clarity and straightforwardness of the DSA Guidelines?

Answered: 17 Skipped: 1



| Answer Choices | Responses |
|--------------------|-----------|
| Poor | 0.00% 0 |
| Poor-adequate | 11.76% 2 |
| Adequate | 23.53% 4 |
| Adequate-excellent | 64.71% 11 |
| Excellent | 0.00% 0 |
| Total | 17 |

DSA-experiences: help your peers!

Q15 If 'Poor' or 'Poor-adequate', do you have any suggestions to improve clarity and straightforwardness of the Guidelines?

Answered: 3 Skipped: 15

| # | Responses | Date |
|---|---|-------------------|
| 1 | We found that a few questions were repetitive. The form is too long and it takes a few full days to complete the application. On the other hand, the feedback received was quick and focused. | 4/8/2016 9:53 AM |
| 2 | The guidelines apply in particular to organizations devoted to data archiving. They translate less well to the situation of research organizations (or projects) that disseminate and archive own data. | 3/31/2016 2:18 PM |
| 3 | N/A | 3/23/2016 3:59 PM |

DSA-experiences: help your peers!

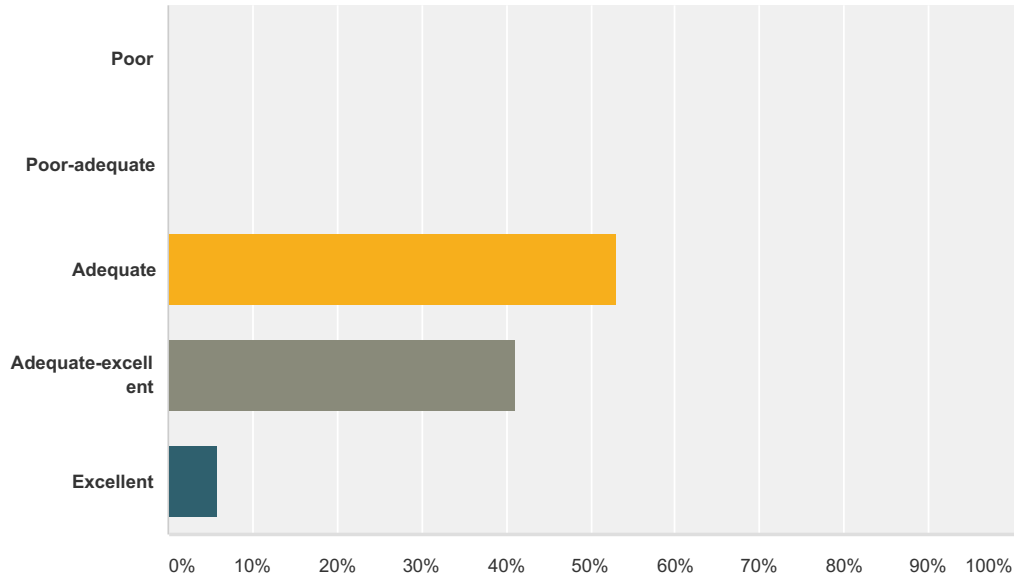
Q16 Which of the Guidelines did you find most difficult to comply with? Please provide the appropriate Guideline number(s), 1-16, and a brief explanation.

Answered: 13 Skipped: 5

| # | Responses | Date |
|----|--|--------------------|
| 1 | Some confusion in interpretation of guidelines 14-16 as they have different focus but most evidence is contained within licences | 4/18/2016 12:52 PM |
| 2 | #8 related to archiving taking place according to established workflows. The reason this was more difficult to comply with is that some of our internal workflows had not been documented as thoroughly as our policies relating to how we interact with data producers & data consumers as well as our technical infrastructure policies, etc. Our documentation on workflows is also stored on our internal wiki, which we provided links to; however, for compliance reasons it would have been better to have workflow information published on our website. | 4/17/2016 4:24 PM |
| 3 | Guideline 2 is referring to data formats and whether the data producer provides the data in formats recommended by the data repository. At the time of the application we only provided brief instructions for uploading data, but we didn't provide a list of accepted or preferred formats. Guideline 7 is referring to a plan for long-term preservation of the research data. At the time of our application we couldn't provide good documentation on specific preservation actions (migration, conversion, storage & backup, fixity) | 4/15/2016 12:28 PM |
| 4 | Management of records and preservation tasks are distributed across a number of questions and sections, which makes difficult to address the issues exactly as expected under each of them and avoid repetitions. Therefore, sections 6, 7, 8, 11, 12 and 13 were the most challenging. | 4/8/2016 9:53 AM |
| 5 | Parts of Guideline 4, because we have no formal succession plan yet in place. | 4/7/2016 2:40 PM |
| 6 | 7. The data repository has a plan for long-term preservation of its digital assets. | 4/4/2016 10:49 AM |
| 7 | Sections including licenses and ensuring suppliers or users behaved accordingly. Those were items that we typical do not interact in. | 3/31/2016 4:19 PM |
| 8 | Not one guideline in particular. The major issue I ran into was that functional roles were very difficult to disentangle from organizational roles. Thinking about and describing my organization in terms of the OAIS was very useful (and sometimes even enlightening). However, preparing the required documentation sometimes appeared overly bureaucratic. On multiple occasions, I felt I was preparing documentation for the sole purpose of satisfying the reviewer's request, but not for the benefit of my project. | 3/31/2016 2:18 PM |
| 9 | 5. The data repository uses due diligence to ensure compliance with legal regulations and contracts including, when applicable, regulations governing the protection of human subjects. Much of this had been inherited from a centralised organisation which our we had, historically, been part of. Investigating this as part of the DSA necessitated a thorough investigation of these regulations, and afforded the opportunity to clarify a number of points. | 3/31/2016 10:19 AM |
| 10 | The most time-consuming to implement was #10, but the vaguest were #7 (sustainability) and #13 OAIS. The last one is still unclear. We implemented OAI-PMH, but what else might be needed is just unclear. | 3/23/2016 8:30 PM |
| 11 | One observation was duplicaiton of content and the similarity of guidelines (11 and 12, and 14 & 15) | 3/23/2016 4:15 PM |
| 12 | None in particular, but several seemed to require repeating information already provided elsewhere. | 3/23/2016 3:59 PM |
| 13 | criteria 14-16 were difficult to describe for a library as they hardly differ in. We wonder why there are three criteria and not just one for access regulations like codes of conduct and licences. | 3/23/2016 1:50 PM |

Q17 Overall, how would you rate the clarity and straightforwardness of the compliance level definitions that come with the DSA Guidelines?

Answered: 17 Skipped: 1



| Answer Choices | Responses |
|--------------------|-----------|
| Poor | 0.00% 0 |
| Poor-adequate | 0.00% 0 |
| Adequate | 52.94% 9 |
| Adequate-excellent | 41.18% 7 |
| Excellent | 5.88% 1 |
| Total | 17 |

DSA-experiences: help your peers!

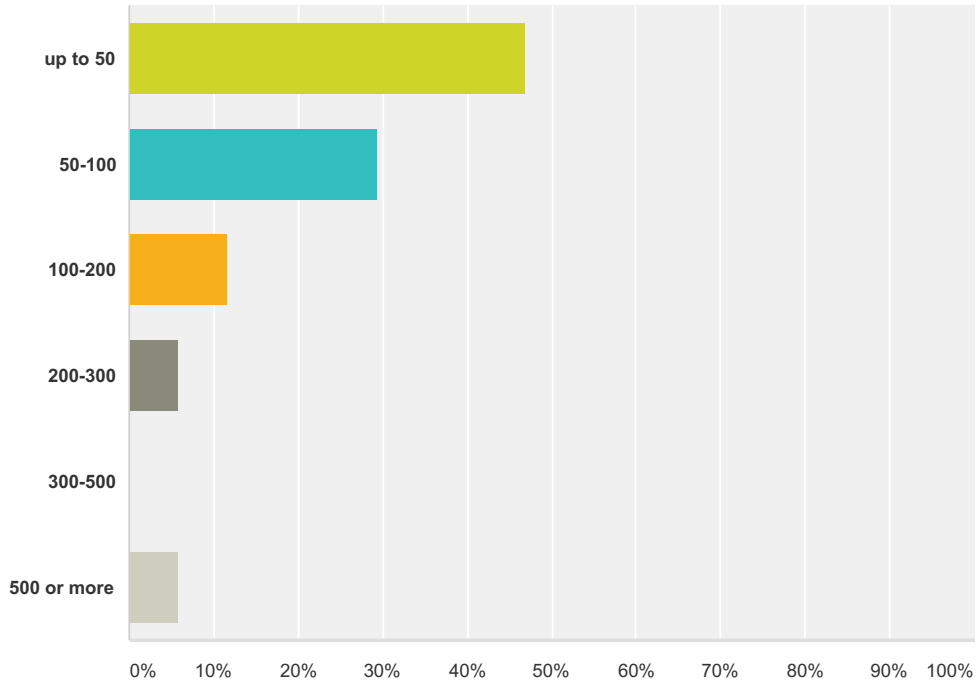
Q18 If 'Poor' or 'Poor-adequate', do you have any suggestions to improve clarity and straightforwardness of the compliance level definitions?

Answered: 1 Skipped: 17

| # | Responses | Date |
|---|-----------|-------------------|
| 1 | N/A | 3/23/2016 3:59 PM |

Q19 After you registered as a DSA-applicant, how many hours do you estimate your organization invested in the actual certification process (peer review)?

Answered: 17 Skipped: 1



| Answer Choices | Responses | Count |
|----------------|-----------|-----------|
| up to 50 | 47.06% | 8 |
| 50-100 | 29.41% | 5 |
| 100-200 | 11.76% | 2 |
| 200-300 | 5.88% | 1 |
| 300-500 | 0.00% | 0 |
| 500 or more | 5.88% | 1 |
| Total | | 17 |

DSA-experiences: help your peers!

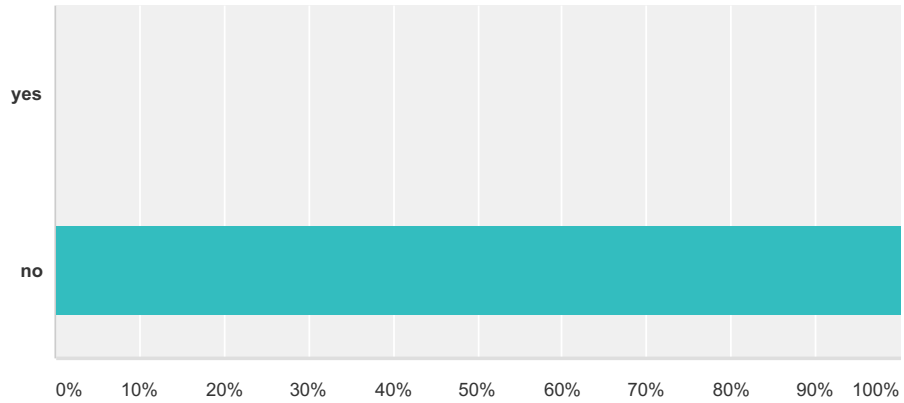
Q20 What were your biggest challenge in working with the reviewer's comments?

Answered: 13 Skipped: 5

| # | Responses | Date |
|----|---|--------------------|
| 1 | None, comments were detailed, informative and practical | 4/18/2016 12:52 PM |
| 2 | Our application did not require revisions, so this does not apply. | 4/17/2016 4:24 PM |
| 3 | none | 4/15/2016 3:47 PM |
| 4 | To have the correct documentation in place. | 4/15/2016 12:28 PM |
| 5 | Reviewers comments were overall clear. | 4/8/2016 9:53 AM |
| 6 | The language of the certification was not always clear where guidelines pertained to depositor and user requirements | 4/4/2016 10:52 AM |
| 7 | We had expected much more feedback, but ended up with a minimal amount so this was not a challenge. | 3/31/2016 4:20 PM |
| 8 | See my answer to question 16. I must say that the reviewer was very positive and constructive in his/her comments, which I appreciated greatly. | 3/31/2016 2:19 PM |
| 9 | Fortunate to have been well prepared for the process with much of the documentation necessary already available with only minor changes required as part of the review process. | 3/31/2016 10:21 AM |
| 10 | No real problems. | 3/23/2016 8:30 PM |
| 11 | Received relatively few comments. Those received were easily understood and could be incorporated easily into the masrter document. | 3/23/2016 4:16 PM |
| 12 | N/A NB: please ignore answer 50-100 on previous screen - I thought this was asking the same question as Q19 (previous answer should be considerably less). | 3/23/2016 4:01 PM |
| 13 | Everything was fine, no challenges there. | 3/23/2016 1:51 PM |

Q21 Did you decide before applying that you would keep records of you staff's investments of time?

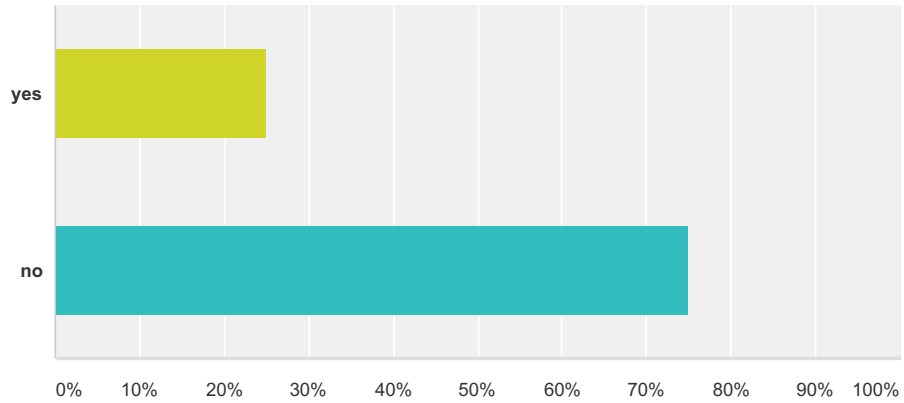
Answered: 16 Skipped: 2



| Answer Choices | Responses |
|----------------|------------|
| yes | 0.00% 0 |
| no | 100.00% 16 |
| Total | 16 |

Q22 Did you decide during the self-assessment phase that you would keep records of you staff's investments of time?

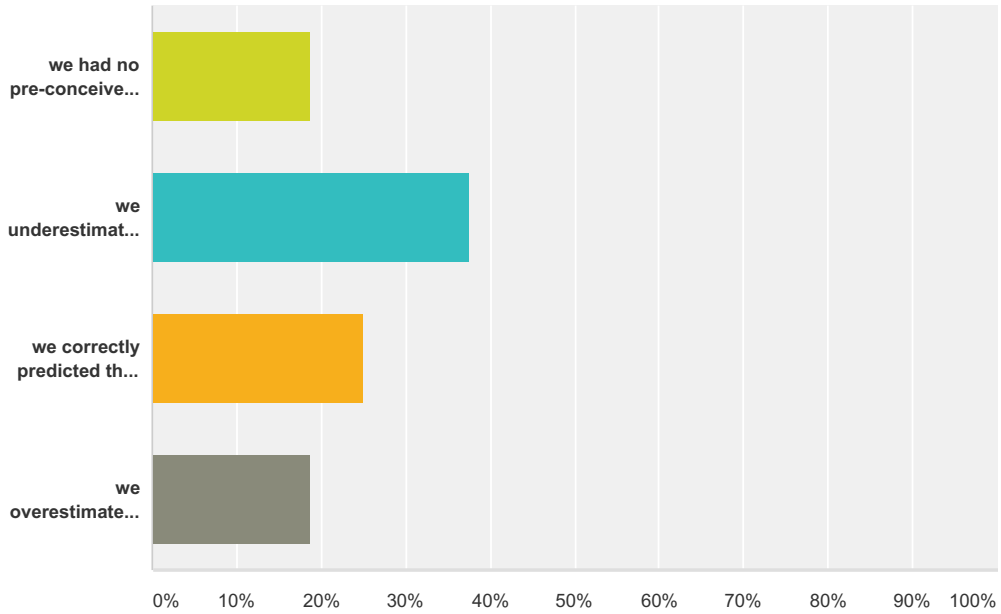
Answered: 16 Skipped: 2



| Answer Choices | Responses | |
|----------------|-----------|-----------|
| yes | 25.00% | 4 |
| no | 75.00% | 12 |
| Total | | 16 |

Q23 Overall, did your organization’s actual investment of resources comply with or exceed your expectations?

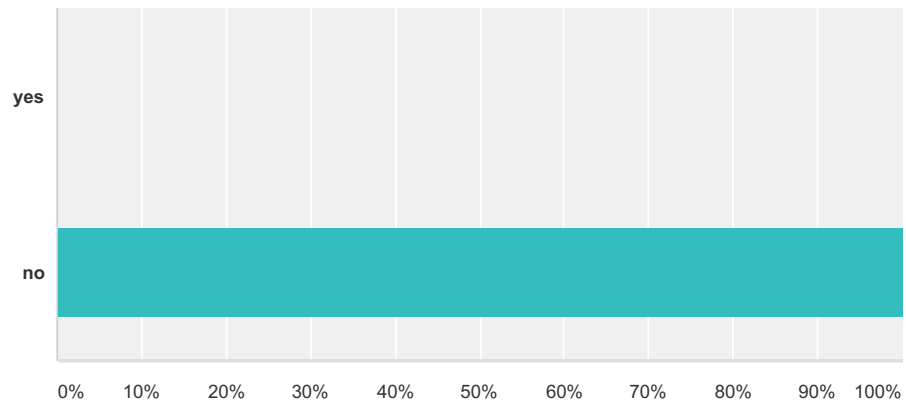
Answered: 16 Skipped: 2



| Answer Choices | Responses |
|---|-----------|
| we had no pre-conceived expectations | 18.75% 3 |
| we underestimated the required investments | 37.50% 6 |
| we correctly predicted the required investments | 25.00% 4 |
| we overestimated the required investments | 18.75% 3 |
| Total | 16 |

Q24 DSA allows for outsourcing to fulfill Guidelines. Did you in fact contract with external/third parties during the certification process that invoiced you for their services?

Answered: 17 Skipped: 1



| Answer Choices | Responses | |
|----------------|-----------|-----------|
| yes | 0.00% | 0 |
| no | 100.00% | 17 |
| Total | | 17 |

DSA-experiences: help your peers!

Q25 If yes, was this for: (you can give multiple answers)

Answered: 0 Skipped: 18

! No matching responses.

| Answer Choices | Responses |
|---|-----------|
| preparing for the application | 0.00% 0 |
| responding to the peer reviewer's concerns | 0.00% 0 |
| outsourcing long-term preservation services | 0.00% 0 |
| Total Respondents: 0 | |

DSA-experiences: help your peers!

**Q26 If yes, how easily could you identify
(trusted) third parties to use for
outsourcing?**

Answered: 1 Skipped: 17

| # | Responses | Date |
|---|-----------|-------------------|
| 1 | N/A | 3/23/2016 4:02 PM |

DSA-experiences: help your peers!

Q27 If yes, how easily could you agree on the contracted activities of the (trusted) third parties?

Answered: 1 Skipped: 17

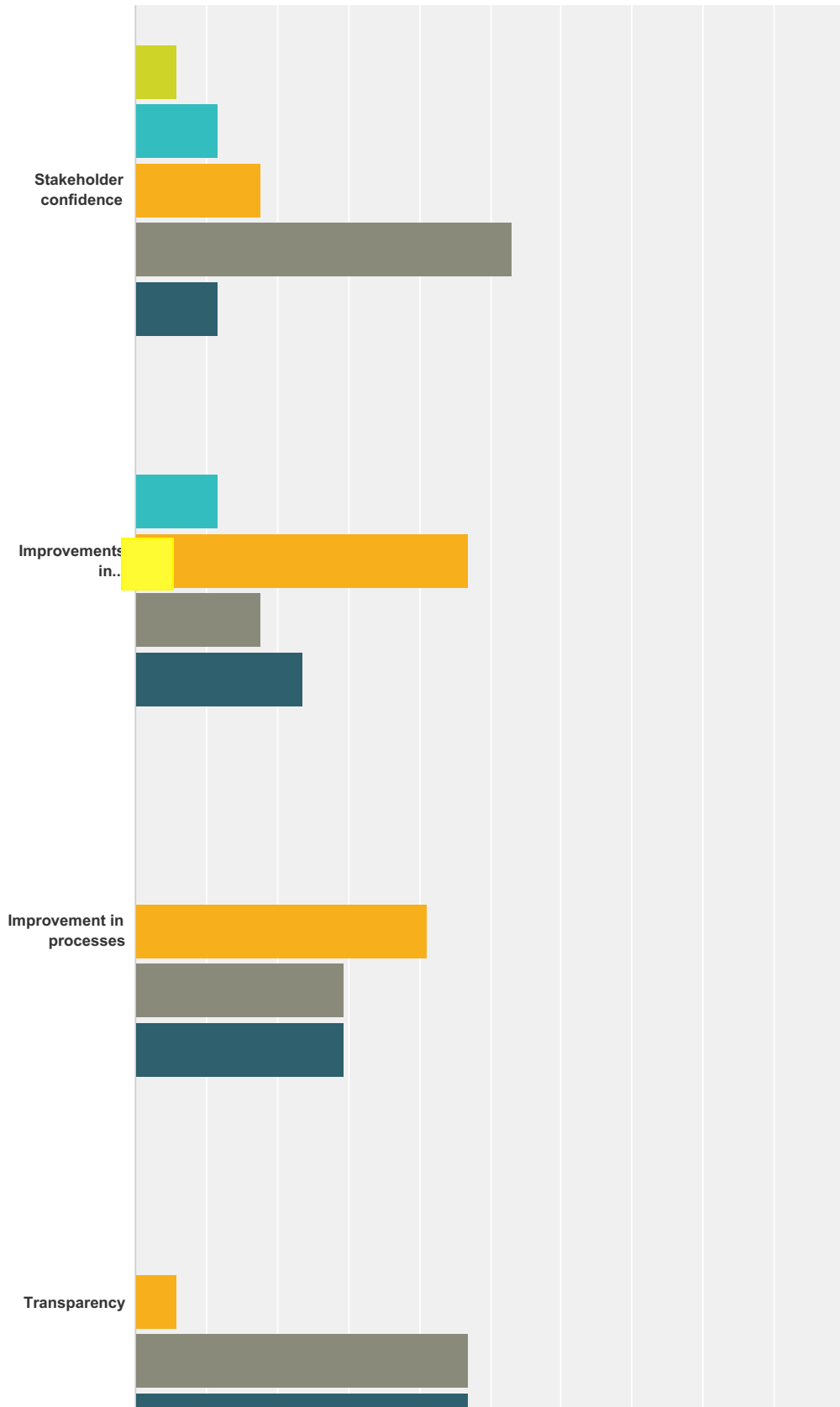
| # | Responses | Date |
|---|-----------|-------------------|
| 1 | N/A | 3/23/2016 4:02 PM |

DSA-experiences: help your peers!

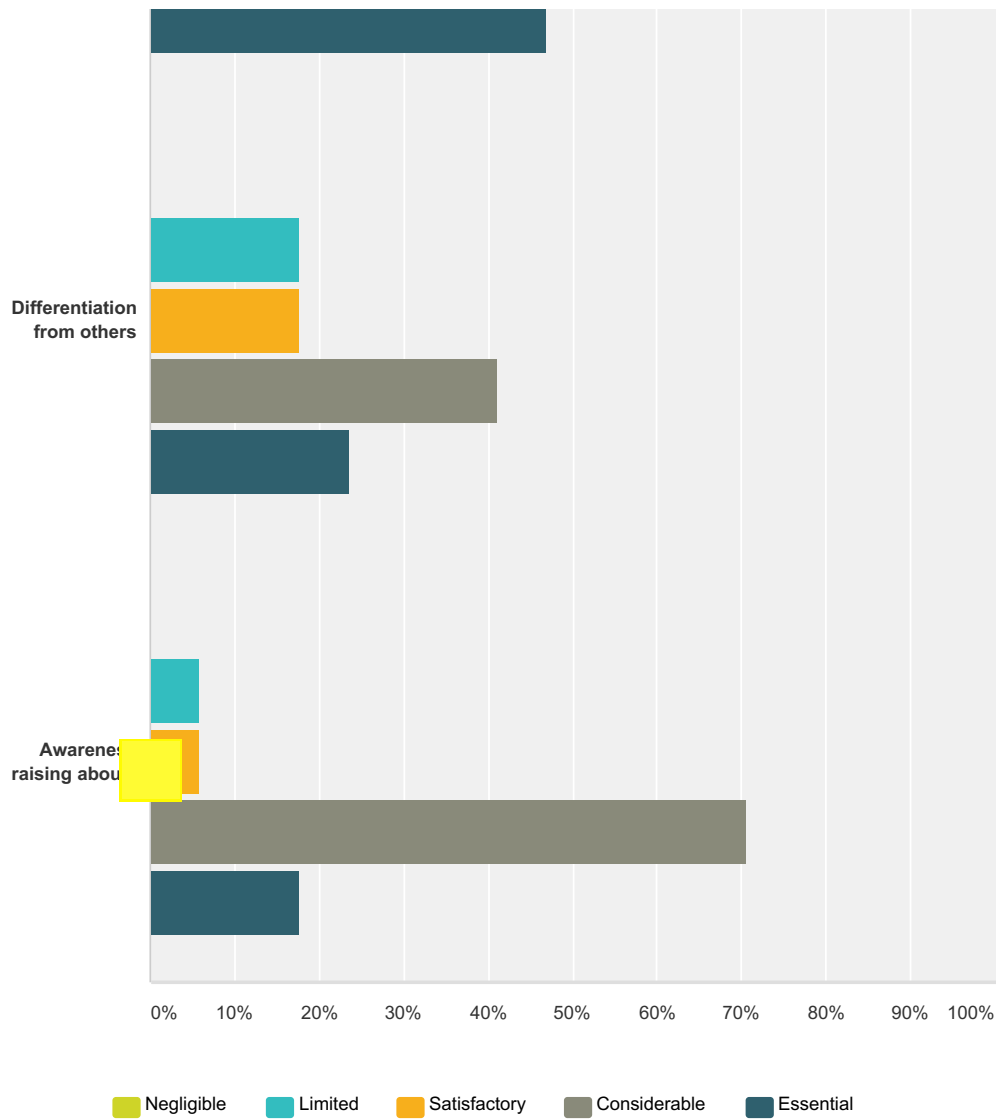
Q28 Please enter your rating



Answered: 17 Skipped: 1



DSA-experiences: help your peers!

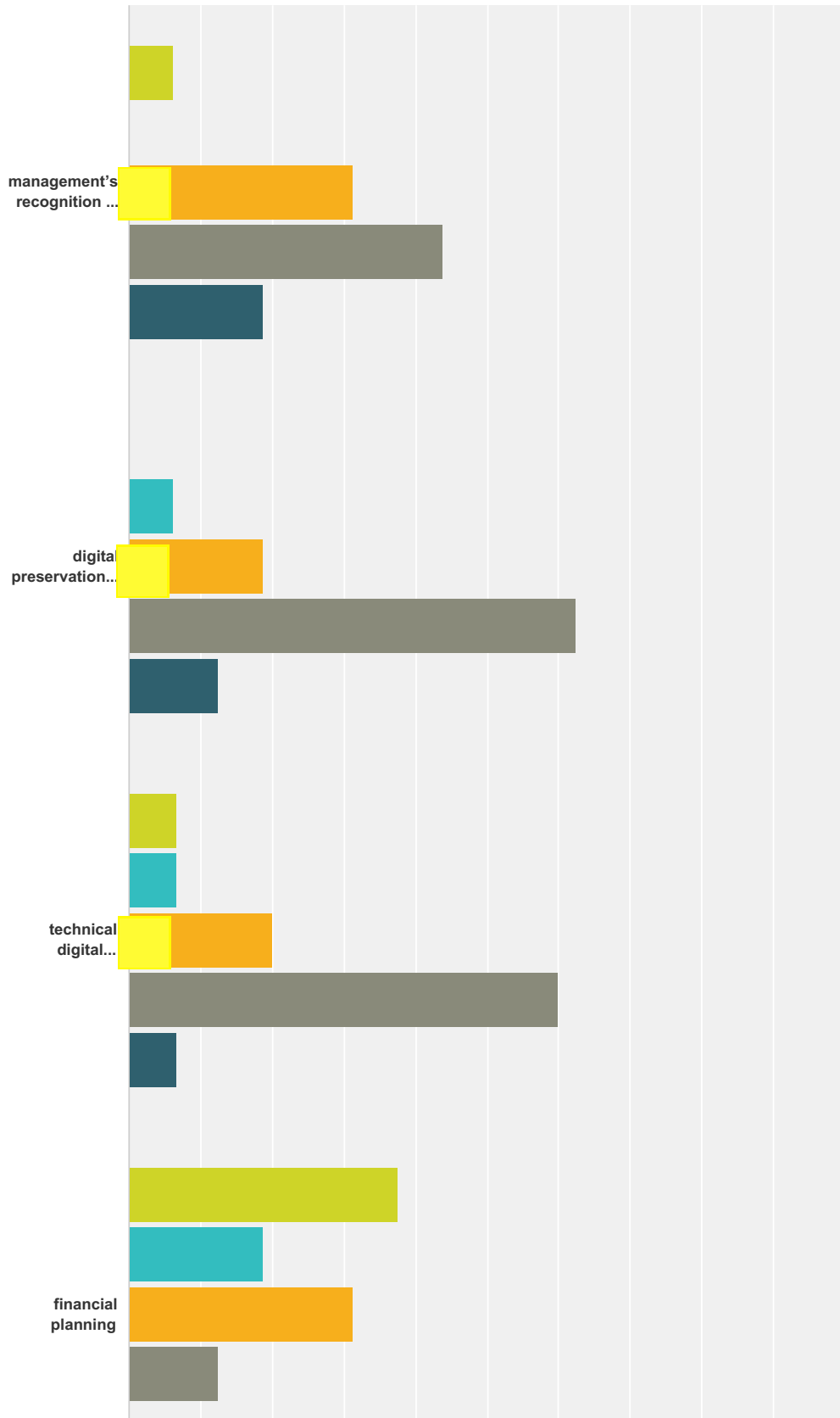


| | Negligible | Limited | Satisfactory | Considerable | Essential | Total |
|--|------------|-------------|--------------|--------------|-------------|-------|
| Stakeholder confidence | 5.88% 1 | 11.76% 2 | 17.65% 3 | 52.94% 9 | 11.76% 2 | 17 |
| Improvements in communication | 0.00% 0 | 11.76% 2 | 47.06% 8 | 17.65% 3 | 23.53% 4 | 17 |
| Improvement in processes | 0.00% 0 | 0.00% 0 | 41.18% 7 | 29.41% 5 | 29.41% 5 | 17 |
| Transparency | 0.00% 0 | 0.00% 0 | 5.88% 1 | 47.06% 8 | 47.06% 8 | 17 |
| Differentiation from others | 0.00% 0 | 17.65% 3 | 17.65% 3 | 41.18% 7 | 23.53% 4 | 17 |
| Awareness raising about digital preservation | 0.00% 0 | 5.88% 1 | 5.88% 1 | 70.59% 12 | 17.65% 3 | 17 |

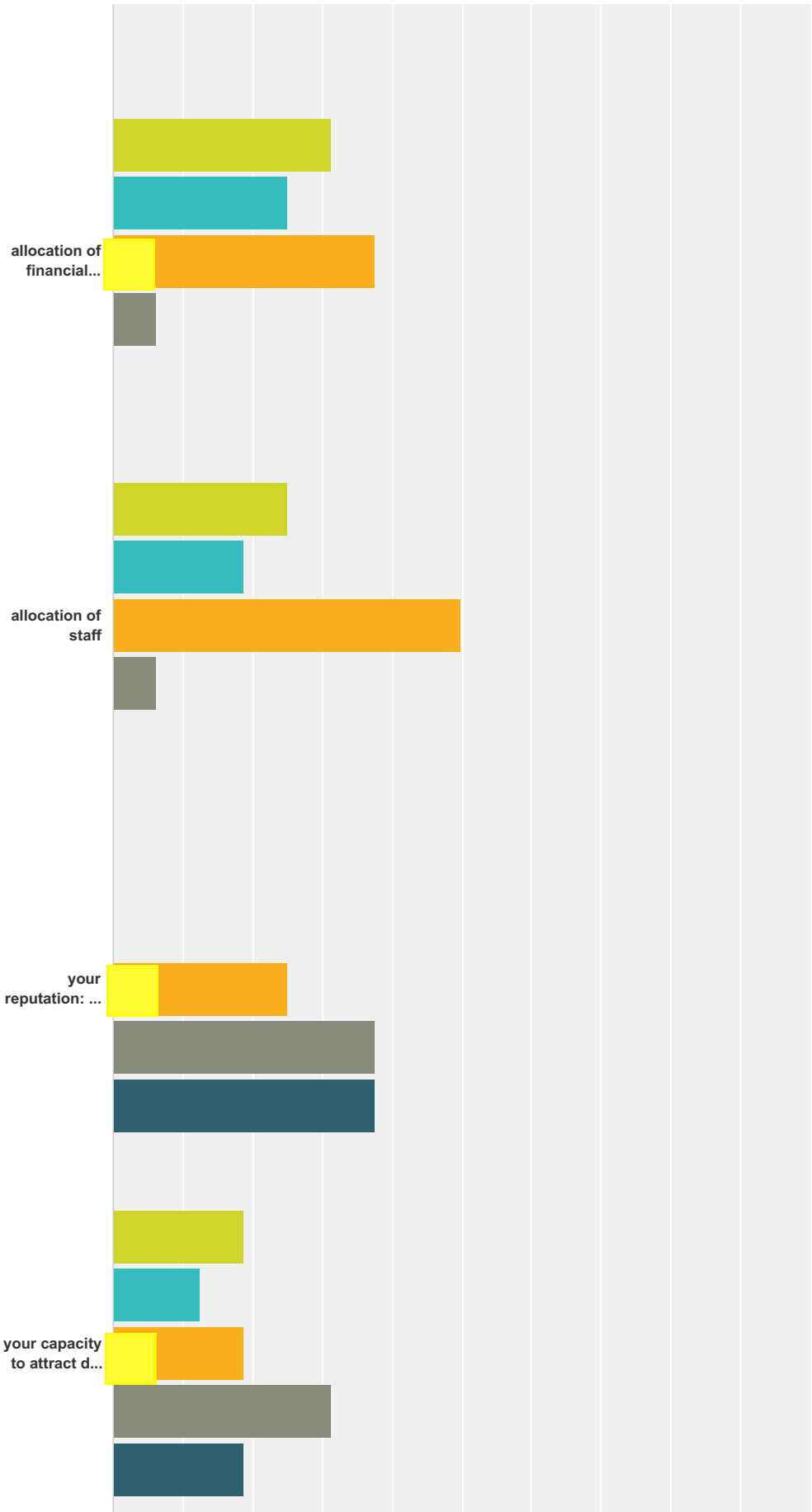
DSA-experiences: help your peers!

Q29 Please enter your rating:

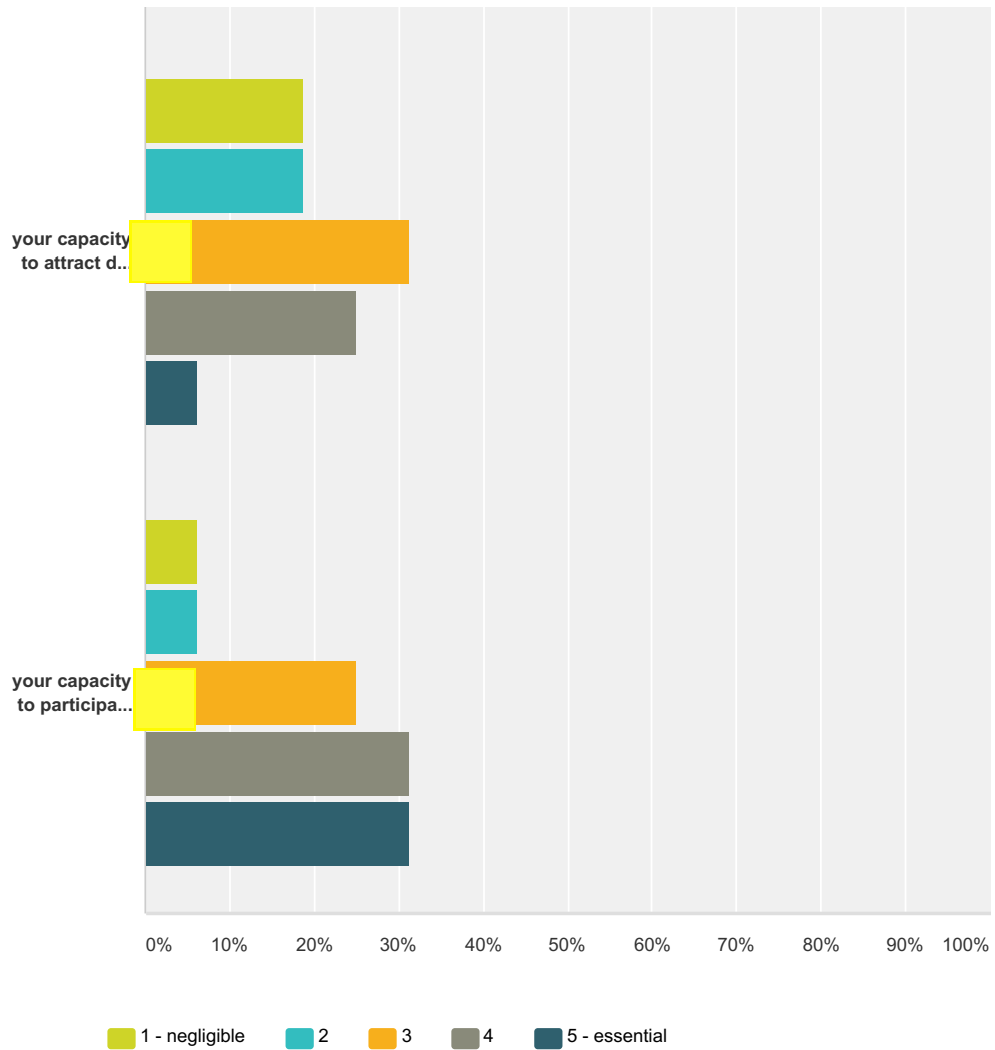
Answered: 16 Skipped: 2



DSA-experiences: help your peers!



DSA-experiences: help your peers!



| | 1 - negligible | 2 | 3 | 4 | 5 - essential | Total |
|---|----------------|-------------|-------------|--------------|---------------|-------|
| management's recognition of the value of long-term preservation and sustained availability of digital assets? | 6.25% 1 | 0.00% 0 | 31.25% 5 | 43.75% 7 | 18.75% 3 | 16 |
| digital preservation policies | 0.00% 0 | 6.25% 1 | 18.75% 3 | 62.50% 10 | 12.50% 2 | 16 |
| technical digital preservation practices | 6.67% 1 | 6.67% 1 | 20.00% 3 | 60.00% 9 | 6.67% 1 | 15 |
| financial planning | 37.50% 6 | 18.75% 3 | 31.25% 5 | 12.50% 2 | 0.00% 0 | 16 |
| allocation of financial resources | 31.25% 5 | 25.00% 4 | 37.50% 6 | 6.25% 1 | 0.00% 0 | 16 |
| allocation of staff | 25.00% 4 | 18.75% 3 | 50.00% 8 | 6.25% 1 | 0.00% 0 | 16 |
| your reputation: did DSA-certification enhance your professional reputation? | 0.00% 0 | 0.00% 0 | 25.00% 4 | 37.50% 6 | 37.50% 6 | 16 |
| your capacity to attract data producers | 18.75% 3 | 12.50% 2 | 18.75% 3 | 31.25% 5 | 18.75% 3 | 16 |
| your capacity to attract data consumers | 18.75% 3 | 18.75% 3 | 31.25% 5 | 25.00% 4 | 6.25% 1 | 16 |

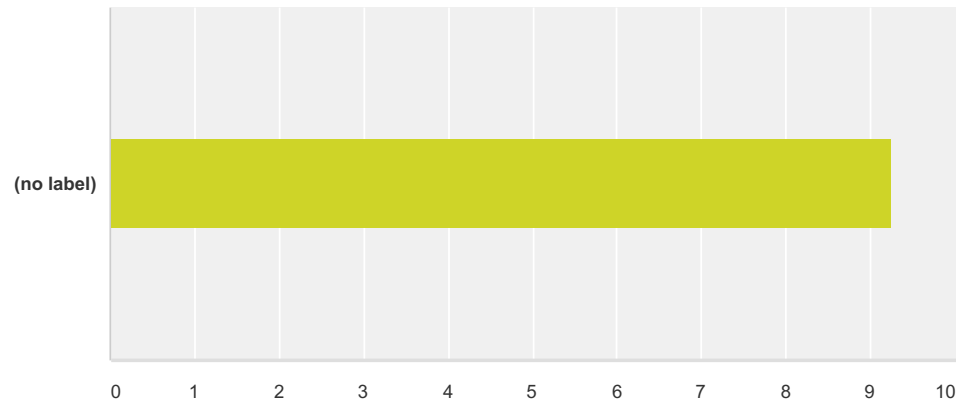
DSA-experiences: help your peers!

| | | | | | | |
|--|-------------------|-------------------|--------------------|--------------------|--------------------|----|
| your capacity to participate in funding applications | 6.25% 1 | 6.25% 1 | 25.00% 4 | 31.25% 5 | 31.25% 5 | 16 |
|--|-------------------|-------------------|--------------------|--------------------|--------------------|----|

DSA-experiences: help your peers!

Q30 Would you recommend DSA-certification to other organizations in your domain?

Answered: 17 Skipped: 1



| | no | unlikely | possibly | likely | very likely | yes, certainly | Total | Weighted Average |
|------------|------------|------------|------------|------------|-------------|----------------|-------|------------------|
| (no label) | 0.00% 0 | 0.00% 0 | 5.88% 1 | 5.88% 1 | 35.29% 6 | 52.94% 9 | 17 | 9.24 |

DSA-experiences: help your peers!

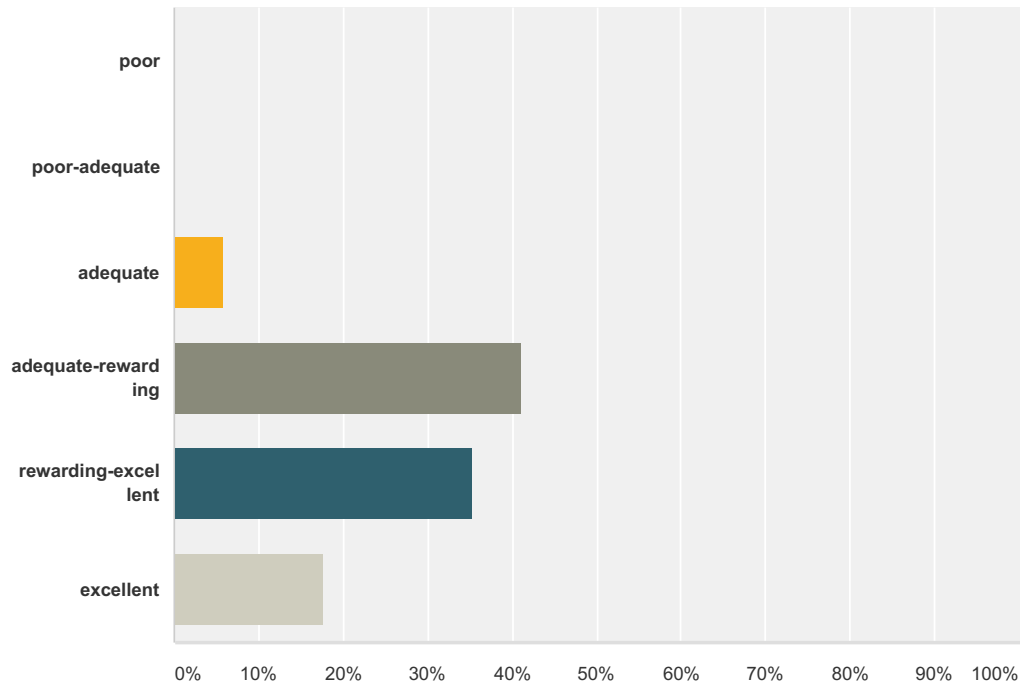
Q31 Can you explain why?

Answered: 16 Skipped: 2

| # | Responses | Date |
|----|--|--------------------|
| 1 | Provides both an internal conversation starter at all levels (between levels of hierarchy), provides justification for information management to deliver DSA which is vital for day to day best practices, contributes to transparent best practice in community, provides 'badge' of achievement to stakeholders | 4/18/2016 12:53 PM |
| 2 | The DSA certification provided a transparent and very useful visual signal to communicate to data producers our commitment to being trustworthy data stewards. It also provided a mechanism to stand out amongst other repositories (especially in the US), since when we received the DSA not many repositories in the US had been certified. | 4/17/2016 4:24 PM |
| 3 | it adds prestige to the repository considering that your practices are being recognized by your peers | 4/15/2016 3:55 PM |
| 4 | A certification process forces you to look really closely at your processes and their implementation which enables you to bring your services to a higher level. With a DSA you are demonstrating to stakeholders that you are a trustworthy digital repository, and are promoting good practice in research data management. | 4/15/2016 12:28 PM |
| 5 | DSA is a quality certification which help differentiate repositories and at the same time it is a tool to raise awareness within the institution about the importance of developing sound and structural policies as regards management, dissemination and preservation of digital objects in an accountable way. | 4/8/2016 9:57 AM |
| 6 | We became aware of our capabilities, strengths and gaps. Implementation of new workflows and tools. Developed a common understanding of our goals. It is a good basis for further certification activities, like the Nestor Seal. | 4/7/2016 3:03 PM |
| 7 | It is an instrument for reviewing internal procedures, transparency and awareness. | 4/7/2016 9:33 AM |
| 8 | The application process to obtain the DSA certification enabled us to interrogate policies and processes we use. It also led us to begin documenting these more thoroughly | 4/4/2016 10:57 AM |
| 9 | The government is now required to ensure its records are secure and accessible. Completing certification processes like the DSA helps us to discover whether we are fulfilling those requirements. | 3/31/2016 4:25 PM |
| 10 | For us, applying for a DSA was the best way of meeting demands from funding organizations. I would emphasize some of the pitfalls I encountered. | 3/31/2016 2:25 PM |
| 11 | The DSA provided a significant enhancement to the reputation of our organisation within our subject area, but particularly within the wider digital archiving community where the accreditation seems to have its greatest impact. The process allows for a reflexive assessment of current guidelines, practices and workflows which has had a significant benefit to the way we work. | 3/31/2016 10:38 AM |
| 12 | It is a very worthy exercise to understand the correctness and trustability point of our own data. I didn't seek it as much as an "external certification" but as a way for ourselves to check we are in line with the current best practices | 3/29/2016 7:07 PM |
| 13 | If you are already doing your job properly, obtaining DSA certification is relatively easy and doing so helps systematize work that has already been done. | 3/23/2016 8:32 PM |
| 14 | After an initial learning curve in terms of understanding terminology and workflow, the application process is beneficial as a learning and knowledge sharing experience for archival staff. It also provides the opportunity for an organisation to audit and enhance its archival operations. More importantly however, the Data Seal of Approval is a public pronouncement of an organisation's archival intent, to demonstrate reliable and trusted access to managed research data for the academic community both now and into the future. | 3/23/2016 4:34 PM |
| 15 | As per Q29, more pluses than negatives! essentially a worthwhile investment of time and effort. | 3/23/2016 4:05 PM |
| 16 | The process forces a review of policies and accessibility of policies, thereby also forcing one to confront areas and address issues that may previously been neglected, or not made publicly known | 3/23/2016 1:09 PM |

Q32 On the whole, how would you rate the ratio between investments in and benefits of DSA-certification for your organization?

Answered: 17 Skipped: 1



| Answer Choices | Responses |
|---------------------|-----------|
| poor | 0.00% 0 |
| poor-adequate | 0.00% 0 |
| adequate | 5.88% 1 |
| adequate-rewarding | 41.18% 7 |
| rewarding-excellent | 35.29% 6 |
| excellent | 17.65% 3 |
| Total | 17 |

DSA-experiences: help your peers!

Q33 Are there additional experiences or 'lessons learned' that you think are important to present to future DSA or DSA|WDS applicant organizations? Your suggestions matter!

Answered: 10 Skipped: 8

| # | Responses | Date |
|----|--|--------------------|
| 1 | Challenges of designing scope, challenges of further outsourcing in the future (network of trusted services) | 4/18/2016 12:53 PM |
| 2 | it takes time to complete this especially if you have policies in place, but either not fully written or not been updated. The exercise though allows the repository to assess where they are and where they want to go. For us, the DSA application allowed us to re-examine our policies and practices and compare them vis-à-vis other repositories who have received DSA Certification before us (because their applications are viewable on the DSA website). | 4/15/2016 4:00 PM |
| 3 | Our lessons learned: - Document your processes and procedures at the earliest start and keep it up-to-date - Proper preparation pays off - You can't do it on your own -> get the right people involved! | 4/15/2016 12:29 PM |
| 4 | We received the certification relatively recently and we are still in the process of taking the most out of it. However, the experience of applying and the many issues that came up during the process have turned out to be very positive and are helping us consolidate our quality related working lines. | 4/8/2016 9:59 AM |
| 5 | Of benefit in this process was that we were made to interrogate policy and procedure gaps in our service. In our case this was documentation of what we do. This has improved our communication with our stakeholders. We are also working on obtaining long-term commitment from our parent body to comply with Guideline 7 (The data repository has a plan for long-term preservation of its digital assets). | 4/4/2016 11:00 AM |
| 6 | See my answer to question 16. | 3/31/2016 2:26 PM |
| 7 | Criteria #7 and #13 should be formulated more clearly. | 3/23/2016 8:33 PM |
| 8 | As mentioned, there were too many questions in the self-assessment process which required repetition or re-hashing of information already provided elsewhere in the form. | 3/23/2016 4:07 PM |
| 9 | Please improve the webeditor integrated in the submission tool! That thing was horrible to handle and the output looks quite weird. | 3/23/2016 1:59 PM |
| 10 | Prior to the assessment, we had participated in a process of completing the DSA process as part of the CESSDA trust workshop outcomes. This had been a very useful exercise that prepared us quite well for the subsequent DSA certification effort we undertook for a closely related resource. | 3/23/2016 1:12 PM |