



Research and Innovation Action

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### Cost-Benefit Advocacy Toolkit

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<p><b>Abstract:</b> D.4.9 consists of a linked set of factsheets, case studies, a user guide and supplementary tools designed to assist social science data archives with cost-benefit advocacy to funders and other stakeholders.</p>	
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## EXECUTIVE SUMMARY

The aim of Task 4.6 is to develop a benefit/cost advocacy programme and supporting tools (workshops, factsheets, and case studies) for European social science data services. The cost/benefit advocacy programme can have a significant impact by assembling an evidence base to support negotiation with ministries and funding organisations. A central part of the programme is development of the cost-benefit advocacy toolkit (project deliverable D 4.9), the focus of this report.

To help shape the toolkit, an online user requirements survey consisting of 13 questions was conducted in early 2016. Representatives from the 23 CESSDA member and prospective member countries were invited to take part. There was a 100% response rate. The survey results (see Appendix A) confirmed that the toolkit would need to be easily tailored to need and capacity and provide tools suitable for different levels of capability, particularly for small and emerging services. It also showed strong interest in, and support for, the suggested components to be included in the toolkit.

Subsequently a series of nine focus groups for data archive staff and key stakeholders (e.g. representatives from their funding bodies and ministries) were held in Finland, Estonia, Slovenia and Lithuania. An exit survey of the key stakeholders showed that most felt that the toolkit would change their perceptions of social science research data impact.

Two workshops have also been used to gather wider feedback on the draft toolkit. The first in The Hague in the Netherlands to European social science data staff; and the second at the International Digital Curation Conference (IDCC) in Edinburgh in the UK, to mainly data curators from university institutional repositories.

The toolkit comprises: a user guide; three factsheets (Return on Investment, Costs, and Benefits); four case studies from Social Science Data Archives (ADP in Slovenia, FSD in Finland, LiDA in Lithuania, and UKDS in the UK); and two worksheets (the Archive Development Canvas, and the Benefits Summary for a Data Archive). In addition, the toolkit describes and links to a number of pre-existing external tools and relevant studies.

Toolkit kit components have been peer-reviewed and pre-assigned DOIs to facilitate cross-referencing. The toolkit was reviewed by the CESSDA SaW delivery committee during March 2017. Toolkit components will be uploaded to the CESSDA website, once they are approved. URLs will be entered in the DOI database and all links within the toolkit will then be live and resolve to the relevant tools and landing pages. When the CESSDA Knowledge Sharing Platform is launched, it is anticipated that the toolkit will be re-located at that point to it and urls changed in the DOI database to apply the re-direction to the new locations.

## Abbreviations and Acronyms

<b>CESSDA</b>	Consortium of European Social Science Data Archives
<b>CESSDA SaW</b>	CESSDA Strengthening and Widening
<b>CC-BY</b>	Creative Commons By Attribution license

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## 1. INTRODUCTION

CESSDA is the Consortium of European Social Science Data Archives. The CESSDA SaW project “Strengthening and widening the European infrastructure for social science data archives” is funded by the European Commission as part of its Horizon2020 programme.

The project proposal for CESSDA SaW included a task (task 4.6) focused on understanding the economic impact of social science data services. This task would be led by Charles Beagrie Ltd, with support from the Slovenian Social Science Data Archive (ADP), the Finnish Social Science Data Archive (FSD), the Lithuanian Social Science Data Archive (LiDA), the University of Tartu in Estonia (UTARTU) and the UK Data Archive (UKDS).

The proposal set out that we will develop a benefit/cost advocacy programme and supporting tools such as workshops, factsheets, and (four) case studies for data services. Once developed, individual organisations will be able to apply the programme to provide nationally relevant economic and financial information, taking account of the ‘hidden’ benefits and impact of data-sharing, to support requests for sustainable funding for new national data services (a requirement for CESSDA membership). We expected the cost/benefit advocacy programme to have a significant impact by assembling an evidence base to support the negotiation with ministries and funding organisations. The evidence base and toolset should also support advocacy with other core stakeholders such as data creators and data users. The support and engagement of these different constituencies would be critical to starting, growing, and sustaining European social science archives.

The development of the cost/benefit advocacy programme would require the gathering of information from members and potential new members. They include surveys, workshops, round table meetings and focus groups as appropriate to the information need. Charles Beagrie Ltd would lead on the development of core documents and materials for the task with support from CESSDA for the gathering of information from members and potential new members and user testing with them of the advocacy programme and draft supporting materials. The four case study partners would assist with detailed user testing and case studies for their countries.

The cost/benefit advocacy programme would be able to draw on a range of pre-existing work by partners in the consortium. However, it would need to develop the methodology and a toolset of documents in order for this to be applicable to a range of European countries and in new and emerging as well as established social science data archives.

The generic work on costs and benefits undertaken for the Keeping Research Data Safe (KRDS) project<sup>1</sup> and the 4C European project on digital preservation cost models<sup>2</sup> could

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<sup>1</sup> <http://www.beagrie.com/krds/>

<sup>2</sup> <http://www.4cproject.eu/>

provide a sound approach and basis for considering the costs and qualitative benefits of social science archives. The Netherlands Data Archiving and Networked Services (DANS) has also developed a digital preservation cost model (specific to DANS but potentially more widely applicable if generalised) based on the Activity-Based-Costing (ABC) method and combined it with the Balanced Scorecard Method<sup>3</sup>. This may provide complementary data and approaches.

The study of the value and economic impact of the Economic and Social Science Data Service (ESDS) in the UK<sup>4</sup> adds a widely based quantitative evaluation of the economic impacts of a social data archive (as well as the application of the KRDS Benefits Framework to the qualitative benefits). Extending this existing work to a wide range of European social science archives in different countries will require adaptation of existing tools and findings to fit a range of circumstances. Existing Activity Based Costing models and economic impact evaluations are time and resource heavy tools to implement but have been applied in the largest and most well-resourced countries. We can describe and make available these available cost and economic impact evaluation models and support materials for other countries who can implement them. What is needed in addition, is a set of lighter, easier to adopt projections and approximations based on existing work that may be more suitable for differences in scale, resource, and available time in other European countries and can support adoption of the CESSDA developmental model.

A more summary approach to costs distilling findings from across 13 organisations has been pioneered by the KRDS project looking at long-term archiving costs and proportional costs for ingest, archiving and access costs. With updating and further additions, we believed this could provide an excellent basis for a set of lighter, easier to adopt projections and approximations for costs for data archiving.

A set of lighter, easier to adopt projections and approximations for value and economic impact would require more work to produce as there has been less processing of existing studies for this purpose. Tools such as the KRDS Benefits Framework adopted by the UK Data Archive could provide a good basis for this on the qualitative understanding of value. However currently the study of the value and economic impact of the Economic and Social Science Data Service (ESDS) in the UK is the only source that has quantified economic impact for social science data archives. Its findings on Returns on Investment and cost/benefit ratios are a starting point but for transferability the projections will need to consider and adjust for the impact of service maturity and critical mass of data collection, between different European countries and their data archives.

Although based on data archives and services for other disciplines, subsequent economic impact studies for the Archaeology Data Service, the British Atmospheric Data Centre, and

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<sup>3</sup> <https://link.springer.com/article/10.1007/s00799-012-0092-1>

<sup>4</sup> <http://www.esrc.ac.uk/files/research/evaluation-and-impact/economic-impact-evaluation-of-the-economic-and-social-data-service/>



EMBL – European Bioinformatics Institute build on, and can contribute to, the generic lessons from the ESDS study for projections of economic impact from data sharing and the services that data archives provide.

We said we would follow an iterative approach to developing the advocacy programme, commencing with a short survey and workshop to gather and validate requirements with potential users, followed by development of draft components of the toolset, user testing in a set of round table meetings and focus groups, finalisation of the toolset, and promotion and dissemination by CESSDA. The toolset of documents needed to accompany the generic cost/benefit advocacy programme will include a short user guide, factsheets, and a set of four case studies that could be used by peer European countries.

This deliverable reports on that work in Task 4.6 and the toolkit it produced.

## 2. THE USER REQUIREMENTS SURVEY

The online survey was conducted during March and April 2016 as part of CESSDA SaW Task 4.6: Understanding the economic impact of social science data archives. Its purpose was to help shape the toolkit to support advocacy and funding for social science archives.

It consisted of 13 questions. Representatives from the 23 CESSDA member and prospective member countries listed below were invited to take part.

Belgium	France	Lithuania	Slovakia
Croatia	Germany	Netherlands	Slovenia
Czech Rep	Greece	Norway	Sweden
Denmark	Hungary	Portugal	Switzerland
Estonia	Ireland	Romania	UK
Finland	Italy	Serbia	

There was an exceptionally good 100% response rate and the respondents engaged actively with the survey providing significant optional free text input. These have been anonymised and included with an analysis of themes emerging from the comments, and the quantitative responses to questions in the Appendix (see Appendix A).

The survey results showed the diversity of countries, staffing, levels of development, funders and funding structures of potential users. They confirmed our initial premise that the toolkit would need to be easily tailored to need and capacity, and provide tools at multiple levels to meet the requirements of a diverse range of European social science archives.

Responses also suggest that the proposed toolkit will fulfill real needs and the initial suggestions for components of the toolkit were all considered very useful in building a case to demonstrate the actual or potential impact of the data services to policy makers and funding departments.

Responses to Q11 confirmed that there would not be a problem if the toolkit is published in English. In Q12 responses suggest there could be interest in local translation. To facilitate this if required, tools should be available in a format to easily edit and convert as needed. The agreed Creative Commons licensing will also facilitate this.

The next steps were to develop further ideas and content for the toolkit and refine them through a series of focus group and workshop discussions over the following months.

## 3. THE FOCUS GROUPS

### 3.1 BACKGROUND

Over the two weeks 16-27 May nine focus groups were held in Finland, Estonia, Slovenia and Lithuania as part of CESSDA SaW task 4.6 developing a funding advocacy toolkit. The focus groups were of two types: for staff from the social science data archive exploring results of the user requirements survey, emerging ideas for the toolkit, and their views and comments on it; and for their key stakeholders (typically senior staff from the host university, government ministries, national statistics offices, representative researchers and depositors) presenting economic approaches to the value and impact of social science data archives and emerging content for the toolkit. The key stakeholder groups were a valuable way of testing parts on the toolkit on the target audience from a range of different European states, and also a valuable advocacy programme in those countries in their own right.

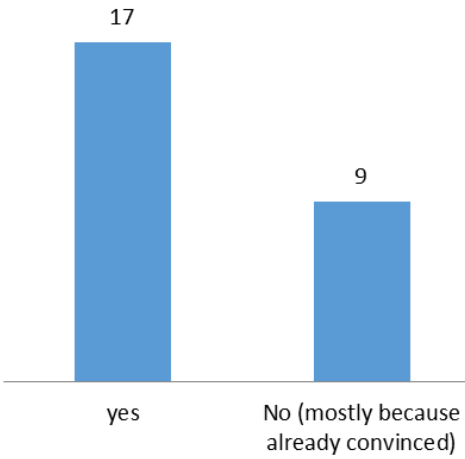
### 3.2 THE ARCHIVE STAFF FOCUS GROUPS

One two-hour staff focus group was held in each country. Feedback reinforced findings from the user requirements survey and confirmed positive direction and emerging ideas for the toolkit. Notes from the sessions are being used to help further refine and develop the emerging tools.

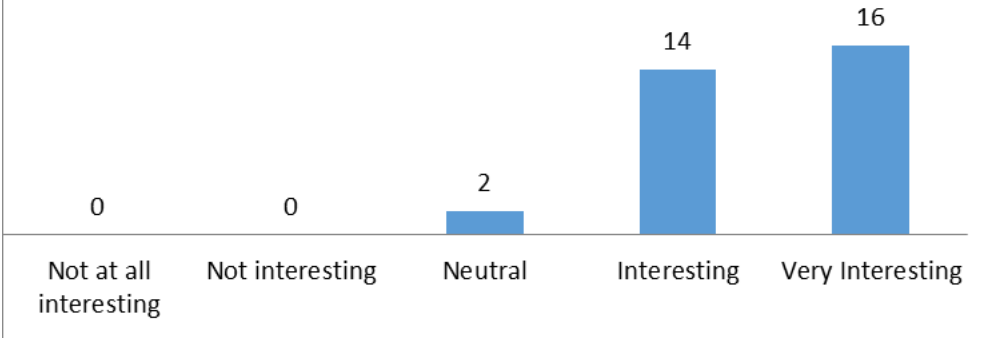
### 3.3 THE KEY STAKEHOLDER FOCUS GROUPS

These varied from 1 to 1.5 hours in length with sessions being kept shorter to attract the maximum number of senior participants from key stakeholders. Participants ranged from 3-11 people per focus group depending on local requirements and invitation. As well as providing feedback on the emerging toolkit, the stakeholder focus groups proved useful for advocacy on behalf of social science data archives in their respective countries. There was a high-level of active engagement and questions. An exit evaluation form was completed to capture feedback anonymously and details summarized below. Individual comments were also captured in the notes to help shape the toolkit.

**Toolkit focus group feedback:  
Would the toolkit change your perceptions of social science research data impact?**



**Key stakeholder rating of focus groups**



*Key Stakeholder Feedback from the Focus Groups*

## 4. THE WORKSHOPS

### 4.1 CESSDA SAW, THE HAGUE, NETHERLANDS, 16/17 JUNE 2016

There was a Cost-Benefit Funding Advocacy Program (Task 4.6) session at the CESSDA Saw Workshop in The Hague 16/17 June 2016. This was an interactive presentation and discussion repeated over two parallel sessions. It was aimed at European social science data archive staff with responsibility for bidding for funding or promotion and advocacy of the archive to key stakeholders. The presentation and discussion covered some of the key ideas on how the CESSDA Saw funding advocacy toolkit will be structured, its components, and key facts and approaches it would include.

22 people attended the two sessions overall, representing a mix of countries at different stages on the development path for social science archives (none, new/emerging, mature). There was strong interest and support for the emerging toolkit together with open discussion of how it can be applied in the specific political and administrative context of different European countries.

A set of 38 slides used for the Cost-Benefit Funding Advocacy Program (Task 4.6) sessions at the CESSDA Saw Workshop in The Hague 16/17 June 2016 are on slideshare<sup>5</sup>. The slide set is an extended version including a number of hidden background/ reference slides not used in the presentation.

### 4.2 INTERNATIONAL DIGITAL CURATION CONFERENCE (IDCC), EDINBURGH, UK, 20 FEBRUARY 2017

A workshop was organised at the IDCC conference to allow feedback on the toolkit from a broader non-CESSDA audience. We recognised that although the toolkit is developed for, and focussed on, the needs of European national social science archives, it is also likely to be of interest to a wider range of data curators in university institutional repositories and elsewhere. A near final version of the toolkit was presented and available for use in the breakout sessions. A set of 51 slides used in the workshop are available on Slideshare<sup>6</sup>.

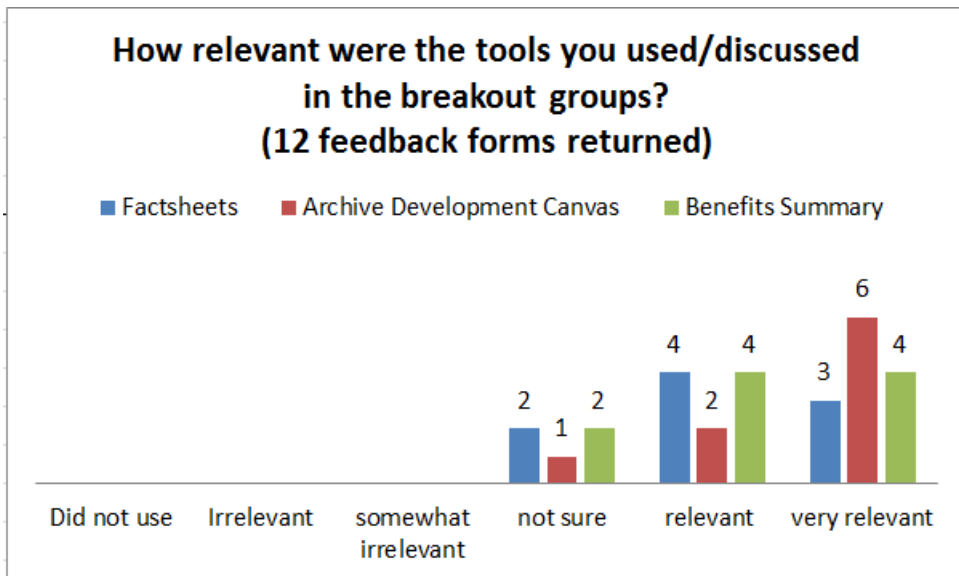
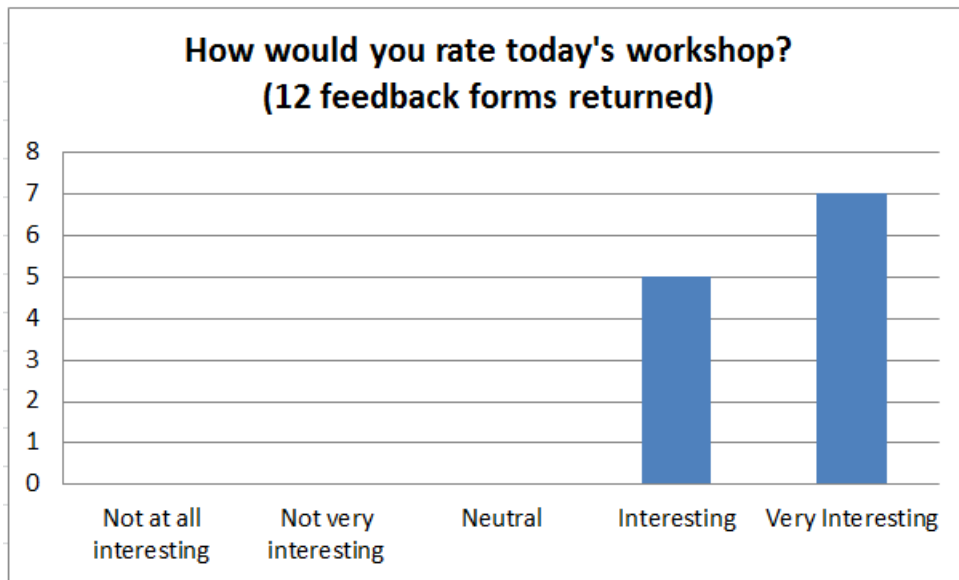
The workshop was fully subscribed and there were 25 attendees including the 4 presenters/organisers. The majority of attendees were from university institutional data repositories.

12 exit evaluation feedback forms were returned by attendees. The exit evaluation form consisted of 2 evaluation questions and a question for optional general feedback. These are summarised below.

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<sup>5</sup> <https://www.slideshare.net/Nbeagrie/cessda-saw-task46haguefocusgrppresentation0616>

<sup>6</sup> <https://www.slideshare.net/Nbeagrie/valueimpact-research-dataservicesidcc2017>



*Evaluation Feedback from IDCC Workshop Attendees*

Quotes from the optional general feedback:

*“This was one of the most relevant and important workshops I have ever attended in my 14 years of professional experience in this library profession. Since I am interacting with senior stakeholders (e.g. assistant vice-presidents, Deans, Chairs, & associate Deans etc.), cost-benefit and ROI are very important to the development of research data services.”*

*“I found the information interesting and will be advocating among my colleagues.”*

*“The worksheets are really useful, and very relevant to be used at an institutional level.”*

*“Highly relevant and good content.”*

## 5. TOOLKIT

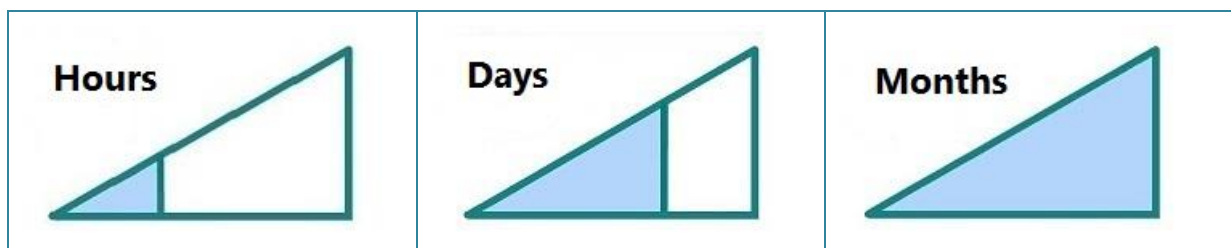
### 5.1 DESIGN CRITERIA

Based on initial ideas and desk research for the toolkit and feedback from the user requirements survey and focus group, a number of design criteria were established for the toolkit:

- Ease of use for individual staff and smaller archives;
- Short documents;
- Good infographics;
- High-quality synthesis of existing reports and studies;
- Making existing tools (e.g. worksheets) easier to use/tailored for social science data archives;
- Creative Commons CC-BY licensing wherever possible for ease of re-use.


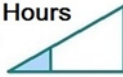

### 5.2 EFFORT GRADING LEVELS

Depending on the maturity of the archive and its existing level of resources, different components of the toolkit will be more appropriate than others for local application. To help staff and archives in the selection of appropriate tools, three broad categories of effort required to apply the tool were defined and assigned as appropriate to the toolkit components.



### 5.3 COMPONENTS

The toolkit we have developed comprises of: a user guide; three factsheets (Return on Investment, Costs, and Benefits); four case studies from Social Science Data Archives (ADP in Slovenia, FSD in Finland, LiDA in Lithuania, and UKDS in the UK); and two worksheets (the Archive Development Canvas, and the Benefits Summary for a Data Archive). In addition, the toolkit describes and links to a number of pre-existing external tools and relevant studies, such as the 4C Curation Costs Exchange and Keeping Research Data Safe (KRDS).

Toolkit Components	Effort
<b>Factsheets:</b> <b>Return on investment (ROI)</b> <b>Costs</b> <b>Benefits</b>	Hours 
<b>Worksheets:</b> <b>Archive Development Canvas</b> <b>Benefits Summary for a Data Archive</b>	Hours 
<b>Case studies:</b> <b>ADP (Slovenia)</b> <b>FSD (Finland)</b> <b>LiDA (Lithuania)</b> <b>UKDS (UK)</b>	Hours 
<b>User guide</b> <b>D4.9 deliverable report</b>	N/A

### 5.3.1 The Factsheets

Cost-Benefit Advocacy Toolkit 

**Return on Investment Factsheet** 

**What is Return on Investment (ROI)?**

ROI is a metric used to evaluate the merit of a single investment or to compare the relative merits of a number of different investments. It measures the amount of quantifiable benefits (return) relative to the investment's cost. To calculate ROI, the quantified benefit (return) is divided by the cost of the investment, and the result is expressed as a percentage or a ratio. A positive ROI means the benefits compare favourably to investment cost.

In business, the ROI metric is used to measure the rates of return and decide whether or not to undertake an investment. In government, ROI is increasingly used to compare and prioritize capital spending proposals within funding programmes. Whilst research ROI metrics are often a feature of research infrastructure bids in the physical and life sciences but have been less often used for the humanities and social sciences.

ROI does not inherently account for the amount of time during which the investment is taking place. Hence one may also incorporate Net Present Value (NPV), a measure that accounts for differences in the value of money over time. For long-term investments, such as research data infrastructure where the benefits accumulate over several decades, the need for Net Present Value adjustment is high.

As a decision tool ROI is simple to understand. However you need to be aware of underlying variables and assumptions that affect the metric and how it was calculated. You can choose variables such as the length of the calculation time, or if overhead cost should be included, etc. To use ROI as an indicator to prioritize different investment projects is problematic unless the variables are defined and comparable.

**The UK Economic and Social Data Service (ESDS) Impact Study and ROI**

The ESDS impact study published in 2012 is currently the only example of a fully developed-quantified economic impact study and ROI metrics for social science research infrastructure. It found that the quantifiable benefits and returns significantly exceeded the value of the funding investment in the ESDS. The study included two ways of expressing return on investment:

- There was a 5.4 to 1 benefit/cost ratio of net economic value to the service's operational costs;
- A counter-factual macro-economic approach based on returns to R&D at either 5% or 20% estimated the value of the additional re-use of the data hosted at £58 million to £233 million over 30 years (Net Present Value); suggesting a 2.5-fold to 10-fold return on investment.

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Cost-Benefit Advocacy Toolkit 

**Costs Factsheet** 

**Introduction to costs**



A basic understanding of budgets and how different factors affect digital preservation and curation costs are critical to establishing and developing any data archive. However, an understanding of the costs of preserving and curating research data sets is not enough in isolation for effective advocacy or to assess economic sustainability.

Cost analysis should be accompanied by an analysis of the anticipated benefits. This costs factsheet should therefore be read and used in conjunction with other components in the Cost-Benefit Advocacy Toolkit, particularly the Benefits Factsheet and the Return on Investment Factsheet.

**Effort required and our knowledge-base**

The costs of data curation and digital preservation have been the focus of a range of research projects in recent years and a selection of tools and a body of knowledge has emerged. Costs are not a simple topic and in practice can be very complex. Costs in any organisation may be distributed across many departments, activities and budget headings. Establishing costs can therefore involve speaking to many different people and costs can be difficult to untangle. In addition, data curation costs are variable according to a range of economic and service factors that may be included/excluded. Issues such as inflation/deflation, cost of capital, depreciation, and scope and the level of service provided, all affect costs.

This complexity means that the effort threshold for some costing activities such as detailed activity-based costing is very high and therefore direct use by individual data archives may be limited.

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Cost-Benefit Advocacy Toolkit 

**Benefits Factsheet** 

**Introduction to benefits**



Identifying the benefits from curating social science research data is a critical task for a data archive if it is to obtain the support that it needs from funders, staff, depositors, and users. This Benefits Factsheet sets out key approaches you can use to think about and identify benefits for different stakeholders; some of the main arguments for benefits and the evidence for them; and finally potential metrics and case studies for benefits.

The approaches outlined should be seen as incremental, building up in steps and increasing in complexity as you move from qualitative to quantitative evidence of benefits. The main focus is on cost-benefit and economic approaches which should be seen as complementary to other measures of benefits such as citations to data and services in the academic literature.

Communicating benefits is most effective if you can consider it together with the investment (costs) required, and if you can quantify and explain the value (benefits in relation to the investment). This factsheet is therefore intended to be used with other components of the CESSDA Saw Cost-Benefit Advocacy Toolkit particularly the Return on Investment (ROI) Factsheet, the Costs Factsheet, and the Archive Development Canvas, to help you make the case for your archive.

**Key approaches**

**Keeping Research Data Safe (KRDS) Benefits Framework**

To assist institutions in identifying and structuring benefits, the Keeping Research Data Safe (KRDS) project created the KRDS Benefits Framework. It serves as a high-level framework within which thinking about benefits can be brainstormed and organised. It aims to help institutions identify the full scope of benefits from management and preservation of research data and to present them in a succinct way to a range of different stakeholders (e.g. when developing business cases or advocacy).

The Framework organises benefits along three broad dimensions: the **outcome achieved**; **when** the outcome is achieved; and **who** benefits from the outcome. It helps identify the "what", "when" and "who" of the value proposition for these activities.

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Cover pages of the Return on Investment, Costs, and Benefits factsheets

The 3 factsheets on costs<sup>7</sup>, benefits<sup>8</sup>, and return on investment<sup>9</sup>, are intended to be individually free-standing but an inter-linked and complementary series. They are 7-8 pages

<sup>7</sup> <http://dx.doi.org/10.18448/16.0003>

<sup>8</sup> <http://dx.doi.org/10.18448/16.0004>

<sup>9</sup> <http://dx.doi.org/10.18448/16.0002>



in length and aim to explain the fundamentals of cost-benefit advocacy for social sciences data archives in an easily assimilated and usable way. They summarise, analyse, and visualize, the evidence base from which the appropriate potential case can be made locally by data archives. Each factsheet selects and presents the key evidence and describes the key tools and approaches available. Links are provided to other relevant components of the toolkit and to relevant external tools, studies, and reports.

### 5.3.2 The Worksheets

**The Archive Development Canvas (Detailed-Level Version)**

This is a brain-storming tool when starting up new data archives or services or extending/developing existing ones. The User Guide and other component tools in the cost/benefit advocacy tool kit can help complete it. Prompts are in grey text. As you complete each section you should begin to see connections to the others. The value proposition (benefits) is central.

<b>Key Partners</b> Host institution? Funders? Data creators/depositors? Data users? Project/service partners? Supporters/volunteers/terrors (hosting, user champions, etc.)?	<b>Key Activities</b> Acquisition and curation of Products (datasets, tools, etc.)? Services (platform, helpdesk, training, promotion etc.)?	<b>Benefits</b> What are the benefits? <i>(Use the Benefits for a Data Archive worksheet and the KRIDS Framework to develop this)</i> Can you measure benefits? (see Key Metrics)	<b>Beneficiaries</b> Who benefits? <i>(Use the Benefits for a Data Archive worksheet and the KRIDS Framework to develop this)</i>	<b>Beneficiary Relationships</b> Personal/Automated? Grant/contract/non-regulated relationship? <b>Channels</b> To raise awareness? To evaluate service benefits? To provide access (delivery/support)? To improve integration?
<b>Key Resistances</b> Competitors? Beneficiaries of status quo? Potential roadblocks (legal, existing policies, culture and practices, etc.)?	<b>Key Resources</b> Data and metadata? Staff knowledge and skills? Technical and organisational Infrastructure (tools, ontologies, depositor/user agreements, etc.)? Professional networks?	<b>Key Metrics</b> Deposit metrics? User metrics? Service metrics? Impact metrics? Deposit/access charges? Costs of inaction?	<b>Funding Streams</b> "Core" public funding? Project funding? In-kind (infrastructure, accommodation, etc.)? Deposit/access charges? Other (consultancy, training, donations, volunteers, etc.)?	
<b>Cost Structure</b> Existing institutional cost structure (salaries, equipment, utilities, etc.)? Fixed costs/variable costs? Direct/indirect costs? Non-costed activities (volunteers, etc.)? Activity based costing (if known)? Dataset based costing (if known)?				

Developed from Business Model Canvas [www.businessmodelgeneration.com](http://www.businessmodelgeneration.com) for the CESSDA SaW Project by Charles Beagrie Ltd 2017. This work is licensed under the Creative Commons Attribution-Share Alike 4.0 Unported License. <https://creativecommons.org/licenses/by-sa/4.0/> Requested attribution: The Archive Development Canvas (Detailed Version), Charles Beagrie Ltd and CESSDA 2017

Project funded by the EU Horizon 2020 Research and Innovation Programme under the agreement No.674839

Archive Development Canvas (detailed version)

**Cost-Benefit Advocacy Toolkit** *cessda saw*

**Benefits Summary for a Data Archive**

<b>Direct Benefits</b> Time and resource savings for researchers and teachers Verification of research through increased data citation thanks to relevant citation information and tools Access to data provides new research opportunities by increasing use of data within collections thanks to proper Collections Development Policy Re-purposing and re-use of data maximises the value of data holdings when the data is available for third parties Increasing research productivity Assisting in provision of a skills base Customer service ethos of data archive staff	<b>Indirect Benefits (Costs Avoided)</b> No re-creation of data Lower future archiving costs increase the likelihood of data being available, earlier in the lifecycle Re-purposing data for new audiences Use by new audiences Protecting returns on earlier investments Reduces potential duplication of effort Data management at scale can lead to cost efficiencies
<b>Near-Term Benefits</b> Value to current researcher and students Single point of access Increasing speed of access to data Ease of access for researchers and students Quality of documentation and contextual information, and resources for teaching No data lost from post-8c turnover thanks to a reliable preservation system Secure storage for data intensive research Availability of data underpinning journal articles Research data integrity since data is of high quality	<b>Long-Term Benefits</b> Data preserved for the long-term Secures value of data for future researchers and students Data management by domain experts who can add value Value added over time as collection grows and develops Enables international comparison, visibility, and use of national research data Input for future research by maximising use across data user community (i.e. including students) Impact on wider profession as a centre of excellence Promotes teaching of quantitative methods and skills Fostering innovation in research and data management
<b>Private Benefits</b> Benefits to sponsor of research Benefits to sponsor of data service provider Benefits to researcher Fulfil grant obligations Increased visibility/citation Aggregator of data for data providers – providing them with one point of access to UK customers Higher usage (and profits) of their data for depositors Removes user burden from depositors	<b>Public Benefits</b> Source of high-quality and often unique data Maximising new research Enables research that otherwise could not be undertaken Research integrity since others can check the outcomes of research Service targeted at academic and research community and supports their needs Fostering transferable skills in data analysis Articulating user needs to data providers

Summary of Data Archive Benefits arranged in a KRIDS Benefits Framework. Based on Beagrie et al 2017 Economic Impact Evaluation of the Economic and Social Data Service Box 2, CC-BY licensed. Using the KRIDS Benefits methodology (see Toolkit User Guide), by deleting non-relevant benefits, adding new benefits, making generic benefits more specific/expanding them, moving your key benefits to top of the lists, this can be used as a draft and modified to brainstorm and summarise the benefits from your archive.

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Project funded by the EU Horizon 2020 Research and Innovation Programme under the agreement No.674839

Benefits Summary for a Data Archive

The Archive Development Canvas<sup>10</sup> was an addition to the original ideas for the toolkit, added when it was recognized that the Business Model Canvas, with adaptations, might provide a valuable additional tool and a link between the toolkit and other parallel work in CESSDA SaW. Possible adaptations were discussed in a side meeting at the CESSDA SaW meeting in Budapest in October 2016.

The Business Model Canvas<sup>11</sup> is openly licensed (Creative Commons By Attribution, Share Alike: CC-BY-SA) and a number of adaptations have been produced adjusted, particularly in terms of language, for not-for-profit organisations.

<sup>10</sup> <http://dx.doi.org/10.18448/16.0009>

<sup>11</sup> <http://www.businessmodelgeneration.com>

We reviewed a number of these non-commercial variants of the Canvas including the Social Business Model Canvas<sup>12</sup> and the Social Enterprise Canvas<sup>13</sup> as a first step. We also reviewed use of the Business Model Canvas in the 4C project<sup>14</sup>.

Following this review, we developed our own version of the Business Model Canvas, the Archive Development Canvas. This incorporated a number of language changes e.g. Business Model Canvas to Archive Development Canvas, and additional categories such as Key Metrics and Key Resistances. A series of prompts specifically tailored to archive needs and to reflect toolkit components and approaches were also added to the Detailed Version of the Archive Development Canvas that is included in the toolkit. This was piloted and tested by the University of Tartu in Estonia as part of their contribution to Task 4.6. A mapping of elements of the CESSDA SaW Capability Maturity Model to the Archive Development Canvas was also undertaken by Mike Priddy at DANS and provided very valuable input.

In addition, a high-level version of the Archive Development Canvas (just the main categories/sub-headings) has been utilized as a finding aid with the components of the toolkit mapped onto it<sup>15</sup>.

A high-level version with selective categories of the Archive Development Canvas has also been used in Deliverable 3.3 Guide for national planning for setting up new data services<sup>16</sup>.

The Benefits Summary for a Data Archive<sup>17</sup> is a CESSDA SaW and social science specific implementation of the Keeping Resource Data Safe Benefits Framework worksheet. It utilizes a summary produced during the ESDS Impact Study<sup>18</sup>, together with updates and additions to this suggested by the project partners, to provide a template that can be used in social science data archives.

Using the KRDS Benefits methodology, by deleting non-relevant benefits; adding new benefits; making generic benefits more specific/expanding them; moving your key benefits to top of the lists, this can be used as a draft and modified by users to brainstorm and summarise the benefits from their archive.

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<sup>12</sup> <http://www.socialbusinessmodelcanvas.com/>

<sup>13</sup> <https://www.blankcanvas.io/canvases/social-enterprise-canvas>

<sup>14</sup> <http://4cproject.eu/d4-5-from-costs-to-business-models>

<sup>15</sup> <http://dx.doi.org/10.18448/16.0012>

<sup>16</sup> [http://cessdasaw.eu/content/uploads/2016/12/CESSDA\\_SaW\\_D3.3\\_v4.0-1.pdf](http://cessdasaw.eu/content/uploads/2016/12/CESSDA_SaW_D3.3_v4.0-1.pdf)

<sup>17</sup> <http://dx.doi.org/10.18448/16.0010>

<sup>18</sup> <http://www.esrc.ac.uk/files/research/evaluation-and-impact/economic-impact-evaluation-of-the-economic-and-social-data-service/>

### 5.3.3 The Case Studies

#### Cost-Benefit Advocacy Toolkit *CESSDA SAW*

**Case study on user satisfaction surveys**  
Data Archive: Slovenian Social Science Data Archive (ADP)



##### Introduction



This case study examines user satisfaction measurement via online surveys. It focuses on the overall picture for surveys in social science data archives and related organizations in general, and the specific experience of the Slovenian Social Science Data Archives (ADP). Related materials include an English translation of the ADP user satisfaction survey, and generic guidance on survey questionnaires in the toolkit User Guide.

ADP is a national research infrastructure for social sciences established in 1997. Its main mission is to manage data and data services to support research, education, and general well-being. The ADP serves as a national data service provider in the Consortium of European Social Science Data Archives (CESSDA) and is one of the smallest CESSDA member archives. Between 2009 and 2013 ADP had approximately 600 registered users annually. However, significantly more people were using openly accessible metadata and study related material such as questionnaires (approximately 7,000 hits on the web site were recorded per year).

ADP has a long tradition of collecting user statistics. Reports on registered users as well as web statistics date back to 1999. Measurements have changed over time with the development of measurement software. However, apart from feedback from workshops and other ADP events, ADP lacked detailed information about users' needs and satisfaction with its work. Hence, the decision was made to run a larger user satisfaction survey in 2016.

In planning for the user satisfaction survey, information was gathered on previous studies carried out in related organizations (e.g. other data archives, libraries and statistical offices). We found the measurements were mostly related to the narrow segments of the organization's operations, and only in rare cases covered all its services.

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#### Cost-Benefit Advocacy Toolkit *CESSDA SAW*

**Case study on using benefit and cost tools**  
Data Archive: Finnish Social Science Data Archive (FSD)



##### Introduction



This case study examines how some existing benefit and cost tools could be used to determine the benefits of data archiving and the costs of this kind of research data infrastructure. Our focus is on the social science domain and on archiving survey and interview data. Preserving these data is particularly important because it is generally not possible, rarely economical, and sometimes not even ethical to replicate the data collection.

We are using the Finnish Social Science Data Archive (FSD) as our case study. FSD is a national resource centre that provides access to a wide range of digital research data for researchers, teachers and students. FSD is the Finnish Service Provider for CESSDA. Established in 1999, it has grown from 10 FTE to 24 FTE in 2016. From day one, FSD's key services have included data archiving, data dissemination and information services. FSD's data holdings contain 1300 studies and the Aila data download portal has 2800 registered users. FSD also provides support for research data management, participates in standards development and promotes open science. In 2014, FSD was awarded the Data Seal of Approval certification as one of the first CESSDA Service Providers. All in all, FSD can be characterised as a medium-sized data archive with a relatively high maturity level.

In this case study, we firstly take a look at the KRDS Benefits Analysis Toolkit. It is designed for use by a wide audience including data archives and repositories, and consists of two tools: the KRDS Benefits Framework and the Value-claim and Benefits Impact Tool. Secondly, we examine how to apply the ESDS economic impact study. Thirdly, we take a look at the CCEx Calculator. We aim to add insight to what is already known through previous research or from other components of the CESSDA Cost-Benefit Toolkit such as the Factsheets. This case study should therefore be read and used in conjunction with other components in the Toolkit.

This case study is likely to be of interest to all CESSDA Service Providers and other social science data archives, and their funders.

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#### Cost-Benefit Advocacy Toolkit *CESSDA SAW*

**Case study on toolkit advocacy focus groups**  
Data Archive: Lithuanian Data Archive for Social Sciences (LiDA)



##### Introduction



This case study reports on testing in focus groups of the emerging cost-benefit advocacy toolkit during 2016. It also presents an analysis of the discussion and feedback from the Lithuanian focus groups.

It is based on two focus groups conducted in May 2016, one with staff from the Lithuanian Data Archive for Social Sciences and Humanities (LiDA), and the other with representatives from its key stakeholders including its funders.

LiDA is a single-site social science data service established in 2006 by Kaunas University of Technology in partnership with Vilnius University, the Institute for Social Research, and the Ministry of Education and Science of the Republic of Lithuania.

In January 2011 LiDA was recognized as a national research infrastructure and was included in the Roadmap for Research Infrastructures of Lithuania. LiDA has been a member of the Consortium of European Social Science Data Archives (CESSDA) since 2013.

Today LiDA is responsible for the acquisition and dissemination of national and international data sets, data access to international data archives, data analysis training and publication of data analysis teaching materials. Study descriptions are documented bilingually in English and Lithuanian, which makes the data sets potentially of interest for the international community.

**LiDA**  
LiDA development was funded by the Ministry of Education and Science and EU Structural funds. LiDA has:  
• over 400 datasets  
• over 2000 registered users

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#### Cost-Benefit Advocacy Toolkit *CESSDA SAW*

**Case study on use of the Economic and Social Data Service (ESDS) economic impact study**  
Data Archive: UK Data Service  
Funder: Economic and Social Research Council



##### Introduction



The Economic and Social Data Service (ESDS) received additional responsibilities in 2012 and was renamed the UK Data Service. This case study examines how the economic impact study of the ESDS published in 2012 (Bogrie et al 2012), has been used in funding advocacy to Government by the UK Data Service and its principal funder the Economic and Social Research Council. It is based on interviews with UK Data Service and research council staff conducted in February 2016.

The ESDS economic impact study is currently the only example of a fully developed quantified economic impact study for social science research data infrastructure.

The case study is therefore likely to be of interest to all social science archives in Europe, their funders in government and national research councils and academics, and other core stakeholders such as data creators and users.

The key economic findings from the ESDS impact study were that the quantifiable benefits significantly exceeded the value of the funding invested in the Service.



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*Cover pages of the ADC, FSD, LiDA, and UKDS case studies*

Four case studies were developed with partner archives in task 4.6. Topics were selected on the basis of local experience of different topics and value and interest to a wider CESSDA community. They are 3-7 pages in length. The focus of the four case studies are as follows:

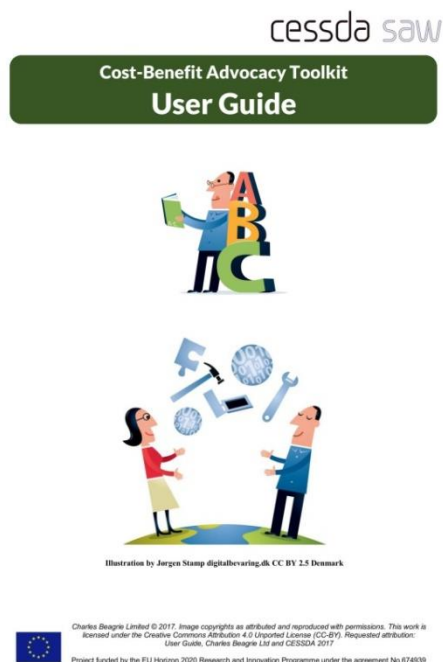
ADP (Slovenia) – Case study on user satisfaction surveys<sup>19</sup>;

FSD (Finland) – Case study on using cost and benefit tools<sup>20</sup>;

LiDA (Lithuania) - Case study on toolkit advocacy focus groups<sup>21</sup>;

UKDS (UK) - Case study on use of the Economic and Social Data Service (ESDS) economic impact study<sup>22</sup>.

### 5.3.4 User Guide



#### *Cover page of the User Guide*

The user guide<sup>23</sup> provides an overview of the toolkit and supplementary guidance on its use.

## 5.4 QUALITY ASSURANCE

Each of the components has been peer-reviewed by members of the Task not involved in their writing and by selected externals where appropriate, and by the CESSDA SaW Delivery Committee.

<sup>19</sup> <http://dx.doi.org/10.18448/16.0007>

<sup>20</sup> <http://dx.doi.org/10.18448/16.0006>

<sup>21</sup> <http://dx.doi.org/10.18448/16.0008>

<sup>22</sup> <http://dx.doi.org/10.18448/16.0005>

<sup>23</sup> <http://dx.doi.org/10.18448/16.0001>

## 6. CONCLUSION

The toolkit is for cost-benefit advocacy for social science data archives. It has a range of components developed by CESSDA SaW and pointers to other pre-existing key external tools.

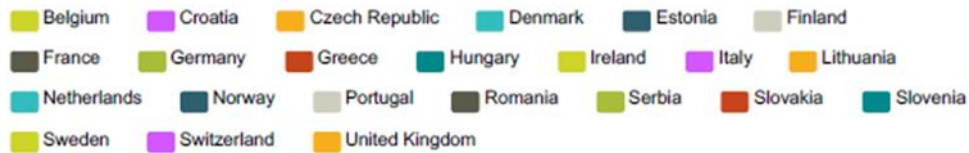
In the process of testing and review of the toolkit, we have received very favourable feedback and comments from both our primary audience of staff and key stakeholders of European social science archives; and also from a potential secondary audience of other research data curators in Europe and internationally.

The toolkit is now complete and has been developed over the course of the project in a series of incremental stages that have built on each other and feedback at each stage.

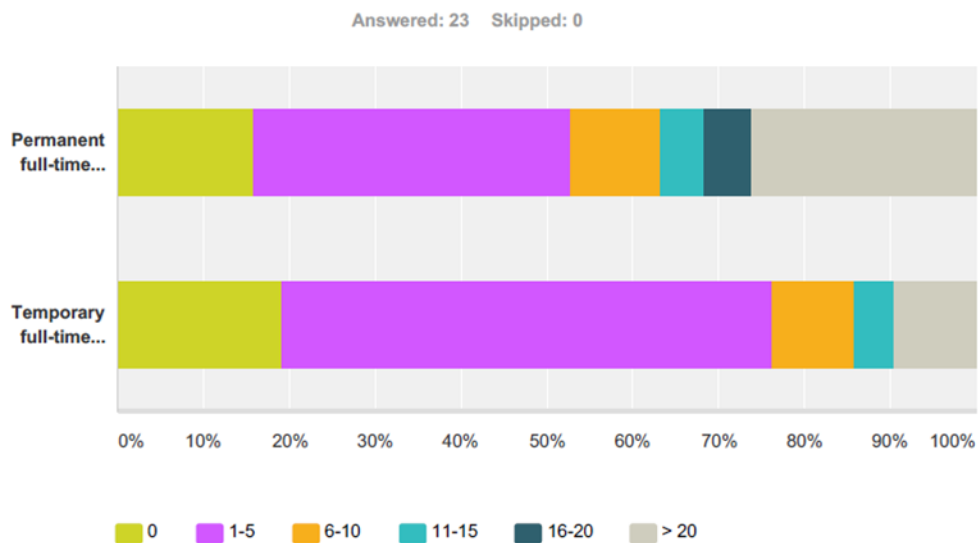
These incremental stages have also begun the process of awareness raising and dissemination of the toolkit. This will continue into the closing months of the project (and beyond). The primary outputs are seen as being the electronic versions of the toolkit made available via the CESSDA website and the Knowledge Sharing Platform. However, print copies will also be produced for the CESSDA SaW workshop in Lisbon in May 2017 and for the closing project conference in Bergen.

## APPENDIX A – USER REQUIREMENTS SURVEY RESULTS

Q1 IN WHICH COUNTRY IS THE DATA SERVICE BASED?



Q2 THE DATA SERVICE'S CURRENT STAFFING IS APPROXIMATELY:



### ANONYMISED COMMENTS

#### THEMES

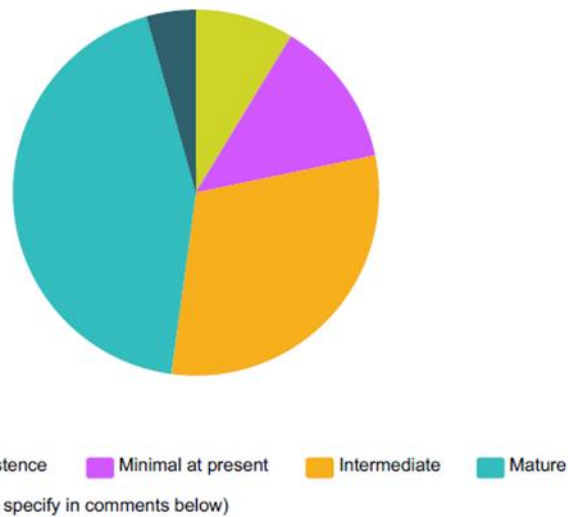
3 respondents indicated that staff funding is project-related.

Currently we are supported by two projects - CESSDA-SaW and [xxx]. Four people are active in these projects, and combined available time is around 12.5 PM for two years.
Data service in [xxx] is in establishment phase, financed by the [xxx] project, which involves 4 persons.
In the past just one person with a research fellowship contract. Since two years two persons with the same contracts.
our data archive is still in experimental phase and is supporting a feasibility study (with funding model expected by the end of 2016/mid-2017)
[xxx] is now in the final stage of changing its institutional status, from a center within the University [xxx] to a self sustaining, institutional consortium with its own legal entity. When this process will be over, the aim is to target the Ministry of Education and Research for medium to long-term funding, and things are likely to change.

Temporary full time staff is employed under limited time contract and it is related to funded projects
The data archive is in the intermediate period of funding and only basic functions are performed on a voluntary basis by one research fellow from the old archive team.
The [xxx] service provider is a network structure composed of 4 different teams.
There's no regular financing for the data archive on last years; temporary financing is based on the projects connected with data archiving.

Q3 THE DEVELOPMENT OF THE DATA SERVICE IS:

Answered: 23 Skipped: 0



Answer Choices	Responses
Not yet in existence	8.70% 2
Minimal at present	13.04% 3
Intermediate	30.43% 7
Mature	43.48% 10
Other (please specify in comments below)	4.35% 1
<b>Total</b>	<b>23</b>

Note: We did not define the development levels offered in this question so responses should be seen as indicative.

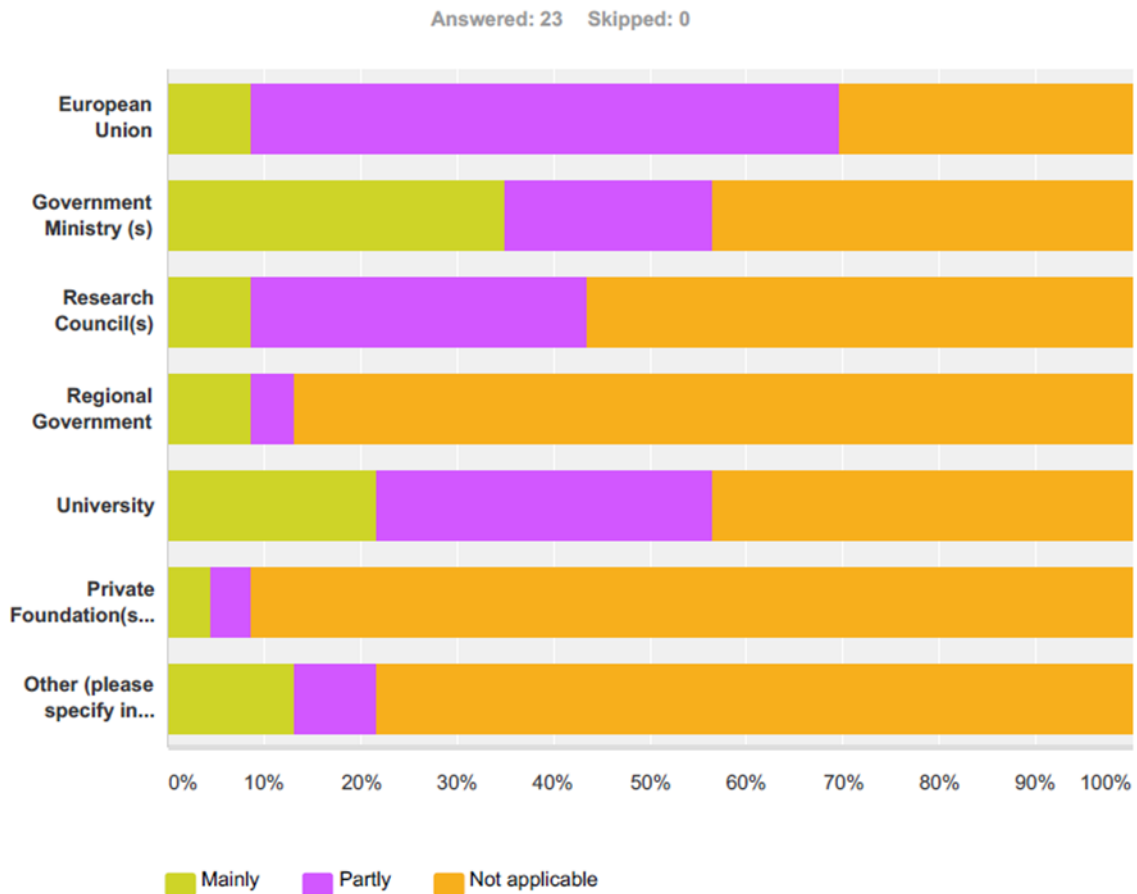


## ANONYMISED COMMENTS

<p>Because of lack of resources, we are only able to describe data using a small portion of the DDI standard. Last year we received funds from our university [xxx] to improve the data management and dissemination, in order to develop new OAIS compliant procedures.</p>
<p>During the [xxx] project we developed a prototype data archive website and database.</p>
<p>In many aspects we are mature, in some intermediate.</p>
<p>[xxx] already has a software solution to archive and disseminate research data, and a number of dedicated machine servers. The reason why the development is not (yet) complete is the operations budget, which we haven't yet secured (still in the final stage of the legal entity building)</p>
<p>The data archive is ready to perform all standard functions of similar institutions. But at the moment there is no national or university's funding for data services.</p>
<p>The main task is to preserve the status quo.</p>
<p>This depends on the definition. If we take as a criteria the effort we spend in developing new services, tools and procedures compared to the effort we spend in routine service delivery, it's the first part that prevail. In that sense we would consider to be permanently developing, which is contrary to the mature stage if taken as static and given.</p>
<p>We currently have: an updated website; pre-ingest, data acquisition, ingest procedures, data processing and documentation, archiving, metadata standards; connections with the research community.</p>



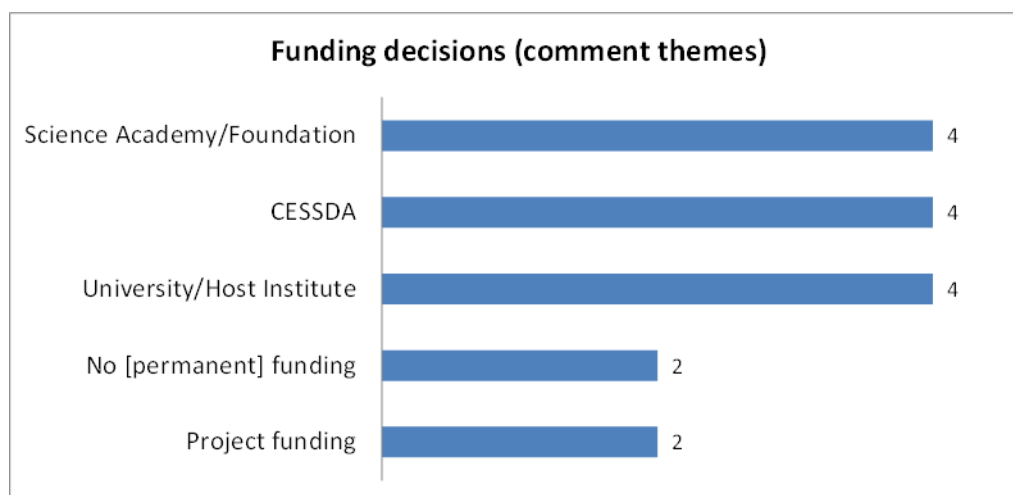
Q4 IN THE LAST 12 MONTHS DECISIONS ABOUT FUNDING FOR MY DATA SERVICE WERE MADE BY:



	Mainly	Partly	Not applicable	Total
European Union	8.70% 2	60.87% 14	30.43% 7	23
Government Ministry (s)	34.78% 8	21.74% 5	43.48% 10	23
Research Council(s)	8.70% 2	34.78% 8	56.52% 13	23
Regional Government	8.70% 2	4.35% 1	86.96% 20	23
University	21.74% 5	34.78% 8	43.48% 10	23
Private Foundation(s) / Charities	4.35% 1	4.35% 1	91.30% 21	23
Other (please specify in comments below)	13.04% 3	8.70% 2	78.26% 18	23

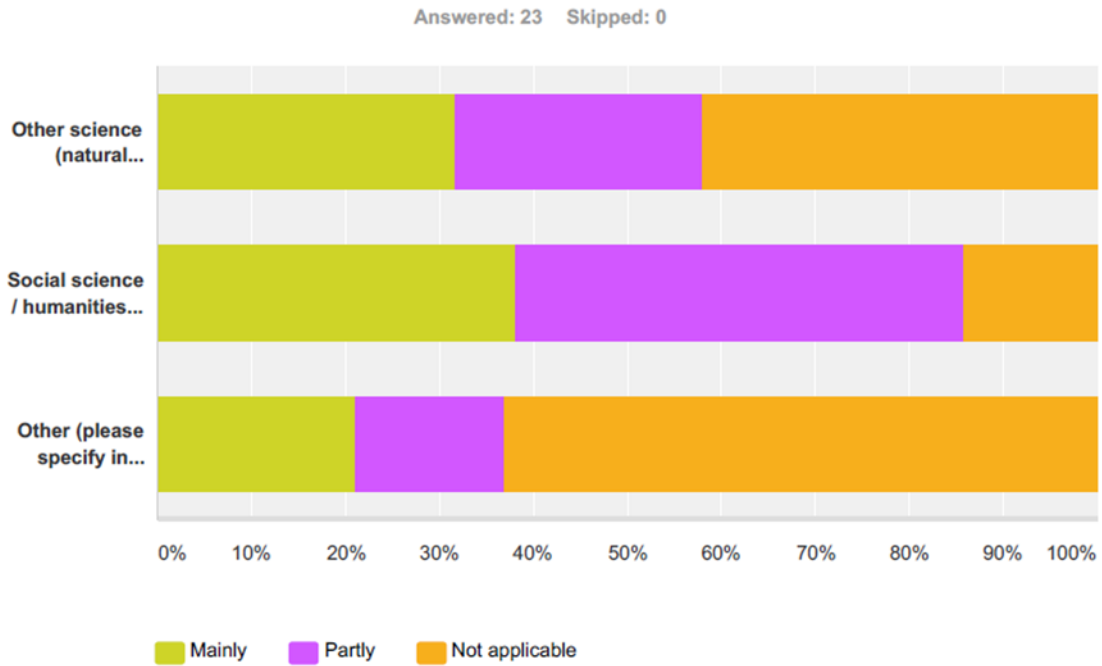
ANONYMISED COMMENTS

## THEMES



Academy of Sciences
[xxx] is a department of the Institute of Sociology of the [xxx] Academy of Sciences. It hosts [xxx] in its premises and provides a large part of administrative and technical background. Moreover, in between 10 - 20% of operational costs [xxx] are covered from the IS budget.
EU CESSDA SaW project and some university based support for small projects connected with data archiving
Library funding which comes from the University - so part of the Library's regular budget.
No funding at all.
Public financing through different institutions.
[xxx] National Science Foundation - [xxx] program
The archive is primarily supported from the budget of the Institute for Sociology of the [...] Academy of Sciences. By partial funding from the EU I understand the CESSDA SaW project. And partial funding by "Government Ministry (s) " includes travel expenses for CESSDA meetings and CESSDA membership fees covered by the [...] Ministry of Education.
The data service doesn't have permanent funding. We are currently supported by the funds provided by the CESSDA SaW project and punctually by the research institute where the data service is based.
universities co-funded the principal funding from the Ministry
We receive our yearly basic funding from the Ministry of Education and University of [...] (about 50/50). In addition we have project funding (2015 44% of our total budget), mainly from the Academy of [...] and the M of E, and CESSDA-related projects (H2020 projects and CESSDA work plan task projects).

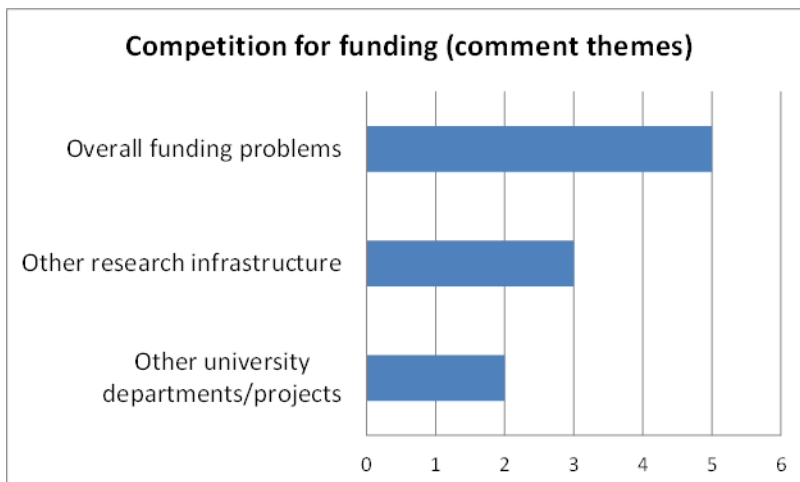
Q5 THE COMPETITION FOR FUNDING THE DATA SERVICE IS FROM:



	Mainly	Partly	Not applicable	Total
Other science (natural sciences, engineering & technology) research infrastructures	31.58% 6	26.32% 5	42.11% 8	19
Social science / humanities research projects	38.10% 8	47.62% 10	14.29% 3	21
Other (please specify in comments below)	21.05% 4	15.79% 3	63.16% 12	19

ANONYMISED COMMENTS

THEMES

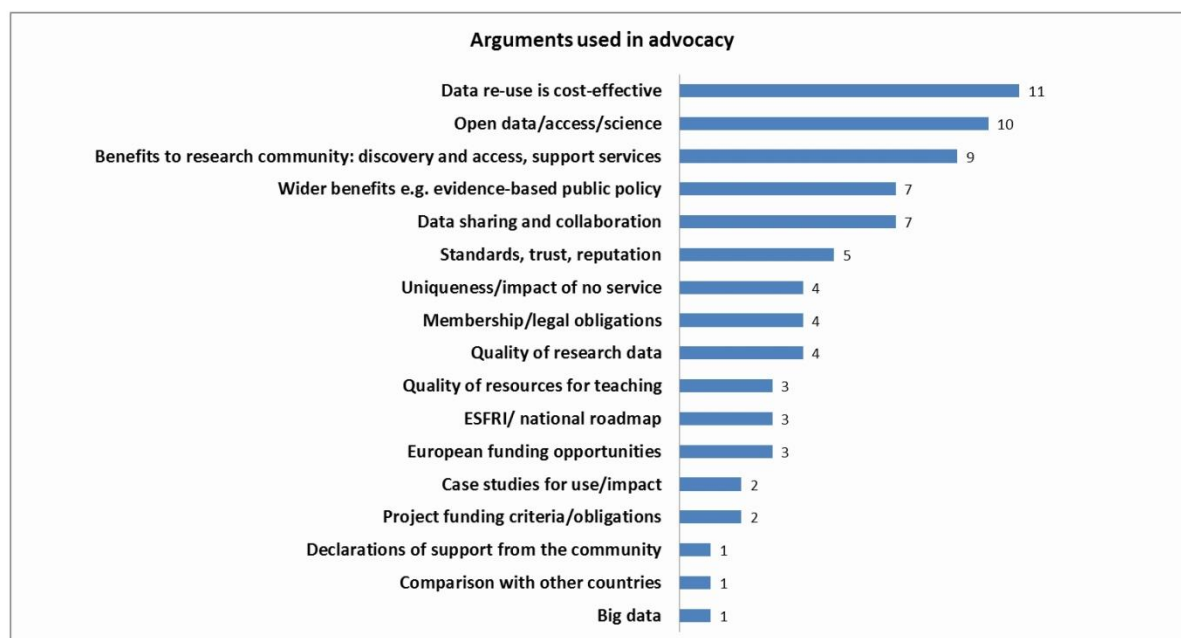


broader framework programmes for RIs
I do not understand this question, there was no competition, but a decision from the Ministry to support a feasibility study and experimental archive before launching a full blown archive
In a way we compete for funding also with the University's other departments.
In [xxx], data archiving is an important issue in natural sciences. Social sciences haven't ever developed a deep thinking on the importance of having a unique place to deposit and disseminate data. The development of the Open Data movement is getting an impulse on the debate about (research) data sharing.
More than a competition issue, there are funding related problems. Although there is a National Roadmap for Research Infrastructures (where the data service is included), so far, there is no decision concerning the funding of those same infrastructures.
Other research data related projects (libraries, statistics, etc.); other development projects inside university
Other research infrastructures. But funding instruments for research infrastructures on national level is in development and not functioning properly.
We are a national infrastructure, and so there is no real competitor, but our funders can always decide not to continue funding us. Same is true for our individual projects funded by our research council / National Science Foundation. There is competition from other social science research projects for money, but they do not compete for our infrastructure projects (i.e., particular surveys).
We are challenged by internal allocation of resources and cut backs in the public sector for all institutions.
We compete for support with other ERICs that seek support from the ministry. The preference of the ministry is to have involvement in the ERICs, but without any binding financial commitments ...

Q6 CAN YOU GIVE EXAMPLES OF THE ARGUMENTS OR FACTS YOU USE IN ADVOCACY TO MAKE YOUR CASE FOR FUNDING THE DATA SERVICE?

ANONYMISED COMMENTS

THEMES



Advantages that exists in becoming a founding member of the ERIC showing the participation allows the access to European funded international projects. - The cost of the fee is very low comparatively to other infrastructures.

CESSDA Membership obligations; the ESFRI Roadmap and the [country] Roadmap - The benefits for research community from archiving and opening data - The use of [xxx]'s services (nationally and internationally) - Spill-over effects to other disciplines and to national initiatives

Make the empirical research easier: researchers don't have to search for data in multiple places (with multiple standards and formats); - Preserve the research data: Don't let the research data be lost after the end of the research; - Give new value to research data (and to researchers as well) reusing them

Used of the data to give evidence of its hypothesis. - Impacts on public policies. - Essential to the researchers in certain scientific fields to have access to data. - The use of data is a selection criterion in calls for projects.

• Data are often produced at considerable expense from public resources; it is highly desirable to maximise the utilisation of the databases in order to justify this expenditure. This is only possible by making data systematically available for secondary analysis. • Data archives contribute to meeting the objectives of the EU's Open Access policy regarding scientific data, whose potential for economic development has been widely recognised by both the OECD and EU. • The availability of data services increases the quality of university-level education by making it possible to use real research data in teaching and students works. Such data can otherwise only be obtained with significant financial investment. • Participation by [xxx] in CESSDA and

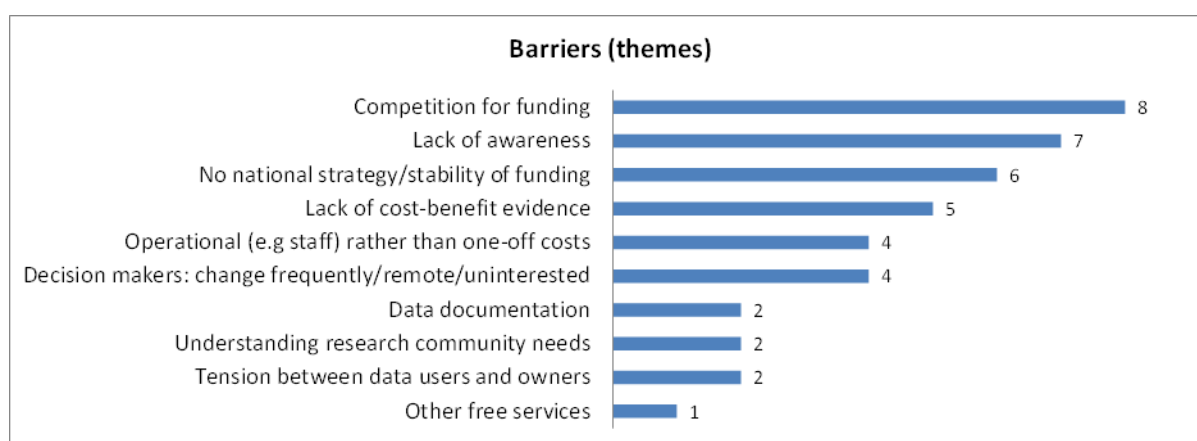
<p>other networks brings [xxx] researchers better access to comparative databases and makes [xxx] data available to international scientific research. This is crucial for the competitiveness of [xxx] social sciences: as the availability of comparative data is often a pre-requisite for participation in international collaborative research projects and successful publication in leading scholarly journals. Moreover, the international availability and compatibility of [xxx] data allows their usage by foreign researchers; and thus facilitates more research about [xxx] society.</p> <ul style="list-style-type: none"> <li>• Knowledge of prior projects' data outcomes facilitates the formulation of new research projects. Archived databases and their documentation are widely used in (a) preparing research instruments and designing new surveys, (b) replicating or verifying analytical procedures and results, and (c) acting as an inspiration for future research.</li> <li>• Data availability increases the verifiability of results and the transparency of scientific research.</li> <li>• Online data services makes social sciences less dependent on resources located in the 'centre' and contributes to the democratic distribution of conditions promoting scientific excellence across all regions.</li> </ul> <p>Availability of relevant and quality social science data is a critical precondition for production of means for evidence based policies. Scientific results based on data and other information obtained from [xxx] contribute to both, formulation and fulfilment of national and European policies including National Priorities in Oriented Research in [xxx]. [xxx] society deals with many current and long-term social issues with clear implications for national competitiveness and quality of life. Examples of such issues are demographic development, social inequalities, migration, health, education and human capital development, the labour market, corruption, developments politics and society and gender inequalities. Many of these issues require conceptual solutions in domains as diverse as pension and education system reform, minority rights, labour market regulation, new health policies, etc. Ensuring the availability of empirical evidence is an important task and is a specific goal of the national and EU R&amp;D policies. Examples of projects utilizing the data services of [xxx] include the following: ...</p>
<p>1. Open Access initiative regarding data, generally supported by our government 2. Goal of [xxx] Strategy of Science Development is to become a part of ERIC 3. Benefits for research community 4. Cost efficiency in sense of increased use of secondary data</p>
<p>Benefits: helps to promote an understanding of the [xxx] economy, social issues, trend analysis. Helps to influence policy and planning in these areas. Data re-use is cost effective for both researchers and funders. Helps to facilitate the acquisition of quant. data analytical skills - used for teaching purposes at 3rd level</p>
<p>Currently our data archive is the only open social science data archive in the country. For example this is one of the main argument.</p>
<p>EU's and national government's Open Science agenda Economic benefits from data re-use The value in research data</p>
<p>First and most obvious are the usual arguments about the benefits of secondary analysis as such, and that we do support that: we have at disposal high quality data (method arguments), that would be expensive and time consuming to collect again (economic), and that contain the information potential for solving different research and society relevant problems, some of them uniquely solved only with the composition of data that already exist, e.g. from the past (conceptual relevance). We build arguments also around the open access research policy requirements to present our service as infrastructure that support implementation of such policy for the public common benefit, but also that we offer support to researchers in fulfilling their ethical and policy obligations...</p>
<p>Main arguments are related to the general need of national data services in the era of the big data, a need of data sharing for contemporary social sciences and humanities to foster data-driven and evidence-based research. The data archive is highly supportive for all open access initiatives. The [xxx] Research Council is playing a positive role in establishing national research infrastructures and promoting open access to the data. The ESFRI process and projects are also helpful to convince national funders.</p>
<p>Open data, transparency in science, open science, infrastructure development, Metadata standards, new innovative data types that are increasingly used by scientists, replication of existing scientific pieces, data re-use</p>

<p>Possibilities connected with data sharing and re-using examples based on concrete research data. Ties with local law acts (about publicity of information, etc.) Collaboration possibilities with other (more accepted) social science infrastructures (national statistics, European Social Survey)</p>
<p>Reliable service, trust-labels available Embedded in scientific organisation Different levels of access to data are possible Datasets are easily retrievable</p>
<p>Reputation and experience with data management. Existing infrastructure. Experience working with others both in [...] and abroad. Impact of service, including influence of secondary data analysis on policy. Cost/benefit based on presence/absence of the service.</p>
<p>the inexistence of a data archive while our country has undersigned international declaration wrt open data, open access the reuse of data funded by public sources the quality effect on research</p>
<p>The most important is the impact on potential users, namely research community, students, graduates/post graduates, wider public. Cooperation with universities and public administration, European and international networking, services provided such as training, e-learning activities etc. Potential indicators/numbers on the aforementioned users. In any case, funding for the data service is being provided through public and European funds (projects implementation). Our data service is the coordinator of a wider RI and that fact has increased visibility, applying for funding as well as its impact at national level. In addition CESSDA networking has been so far a valuable argument in pleading for funding</p>
<p>There are plenty of arguments available: - the fact that CESSDA and data archiving is now a research infrastructure of pan-European high interest - that [xxx] has a long track record of collaboration with CESSDA and other international partners, and built a high level of expertise - (in our case) that [xxx] is actually the only institution of its kind in [xxx] - that it's supported by the community (we have sent a Resolution signed by 6 largest universities in [xxx], two research institutes and the Sociological Society in [xxx]) - that we have also participated in the ESFRI process [xxx], and the Ministry signed the MoU to participate in the CESSDA ERIC - that a data archive is a much needed resource for social science research in [xxx] - that we promote open data and openly available, directly accessible data - that archiving the data is useful for many reasons (not duplicating previous research efforts, preserving data and results which were funded from public money, comparing results over time etc.)</p>
<p>We argue, that supporting the CESSDA ERIC participation: a) will support an already established archive infrastructure b) is relatively low cost compared to other ERICS.</p>
<p>We make existing data available for secondary analyses, and so this saves money for funders - data can be re-used and new expensive collections are less needed. Other countries have similar services (e.g., in CESSDA).</p>

## Q7 WHAT ARE THE MAIN BARRIERS AND DIFFICULTIES YOU HAVE IN MAKING YOUR FUNDING CASE?

## ANONYMISED COMMENTS

## THEMES



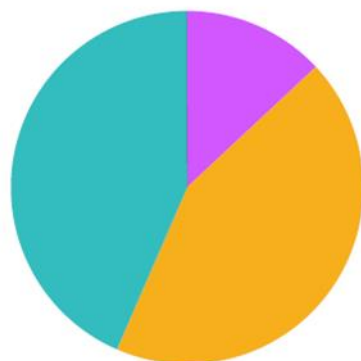
Remoteness from final decision-making process. Difficulties quantifying impact and showing return on investment. Idea of decision-makers that services can be outsourced - to cloud etc.
Important work of documentation of the data to allow their re-use. - Insufficient use of the data by the local community of research. - Subdivision still existing of the administration holders of data.
lack of ministerial representatives informed of the importance of having a data archive - weak social sciences in the national debate - lack of clarity on costs and benefits
Lots of competition for research infrastructure funding - No hard facts about cost-efficiency - [xxx] research infrastructure funding system is still developing; for the last five years we have applied for funding basically every year which is very time-consuming
1) Huge administrative burden. 2) The most of the funding comes from short terms projects, even if the activities are considered to be continual. There is always a lot of uncertainty and unclear conditions concerning the future funding period. The decisions on funding from the Ministry are often very late (e.g. decision on funding since 01/01/2016 was made by 22/12/2015; in addition the funding period was shortened from 7 to 4 years and there were 10% budget cuts for 2016 and 20% for 2017-2019).
Absence of a national policy on funding. Lack of awareness by funding bodies, govt. and other agencies of the benefits outlined in Q6. We don't have the statistics to back up the benefits that we are proffering.
budget, cooperation agreements in a federal state, exact knowledge of the needs of the scientific/political community
Emergence of new, free services Blurring of the boundaries between social sciences/humanities on the one hand and natural sciences on the other hand Delivering services to both depositors and users creates a tension (in access conditions and embargo periods)
General restrictions in ensuring public funding due to specific socioeconomic conjuncture of the country. Concerning the availability of public funds the main barriers encountered are the diminution of funding for social sciences as well as the main prerequisite which mainly concerns smart specialisation (RIS for the time being). Our social science data service have difficulties in responding to such needs the way national R& D policies expect.



Lack of interest from the researchers. Only limited interest from the universities
Low acceptance of social sciences as a whole and especially about needs of their infrastructure in the country Lack of data sharing and secondary research traditions Missing of understanding about effectiveness of re-using social science research data
One main we would say is lack of information in general about the existence of the services, and what are the specifics about how it's organized. Once that is explained usually the potential doubts disappears. This is sometimes related to lack of similar national disciplinary data centers, that have infrastructure role prevailing. Even if we are small organization compared to other countries, it is sometimes difficult to argue about need to have a robust organization and with elaborate procedures. Compared to other sciences research infrastructures it is sometimes difficult to make case for funding persons wages (which is our main expenditure), compared to buying new equipment, that is what people from sciences and technology disciplines understand under the title.
Since we are part of the[...] Roadmap for infrastructures, it is not about funding our case but decision-making regarding all the infrastructures (namely [...] + CESSDA)
So far we have not had any difficulties getting funding (since 2008). We have had two evaluations in recent years, and these have been positive, and so this has eliminated potential barriers.
Strategies and actions of the host university to commercialize all academic activities within the university, and a full absence of understanding of functions and value of data services for social sciences and humanities in the current university's management. The absence clear, transparent and sustainable national funding instruments for research infrastructures is another major barrier.
The junction between infrastructure and academic research is difficult to define and explain to the funding agencies. The most difficult argument is the extra money required for data documentation, especially this is done ex-post.
The lack of understanding of the value in research data. The overall competition for resources. Scarce resources for data archiving in research projects.
The Ministry is a) unwilling to make any long term financial commitments, where there is no clear pressure to do so (the archive is unable to exert such pressure) b) in the perspective of the archive is operational as it is, so no further financing is necessary c) telling us that all the ERICs want support, so why should they pick CESSDA, if there are other options.
The only, but most important problem, is related to the people sitting in decision making places at the Ministry. They have 100% [xxx] background, they don't understand social science research and don't even try to understand it. The only question we constantly receive is what the immediate impact such an infrastructure would have over the economy, and without an immediate impact they don't make any decision at all.
Very frequent change of [xxx] Government officials in charge for social sciences and generally very low budget for financing science in [xxx].
We have to promote the importance of the long-term preservation and the secondary analysis

Q8 IN ADVOCACY, HOW USEFUL ARE COMPARISONS WITH OTHER COUNTRIES?

Answered: 23 Skipped: 0



■ Not useful at all 
 ■ Mostly not useful 
 ■ Quite useful 
 ■ Very useful 
 ■ Don't know

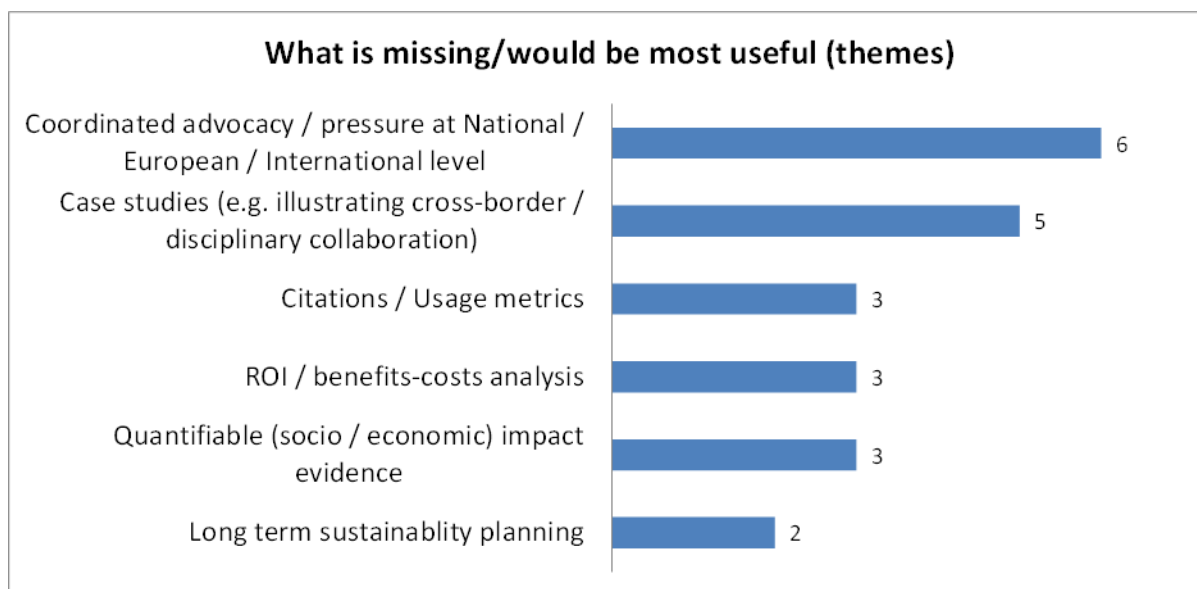
ANONYMISED COMMENTS

Because it shows that [xxx] is one of the few countries from the EU that is not member of CESSDA.
Benchmarking is a part of the evaluation process.
Both in terms of what is done and how it is done. Plus what has worked well, hasn't worked so well, what would be done differently. What is best practice.
By comparing to other countries we can show where the gaps are and where we are mature.
Comparisons not particularly valuable, but reputation within European or World context can help. Case studies from other countries can assist in making particular cases for funding.
Data organizations, including CESSDA, which are functioning successfully in other countries are presented as the examples to national decision makers.
Especially the [region] countries
Higher education on data are more or less developed.
It's useful even if the size and variety of services that is offered in 'rich' countries could be seen also cynically, as something that we could not even nearly afford.
some countries have small archives that can serve as benchmark
Useful if they are also responding to the concrete local needs
Very useful, it's a very important argument and it works most of the times, but in the end they focus on the national context and the [xxx] economic environment.
We use the close example of [xxx]

Q9 WHAT IS MISSING IN SUPPORTING ADVOCACY FOR YOUR SERVICE, AND WOULD BE MOST USEFUL TO YOU IN MAKING YOUR FUNDING CASE?

ANONYMISED COMMENTS

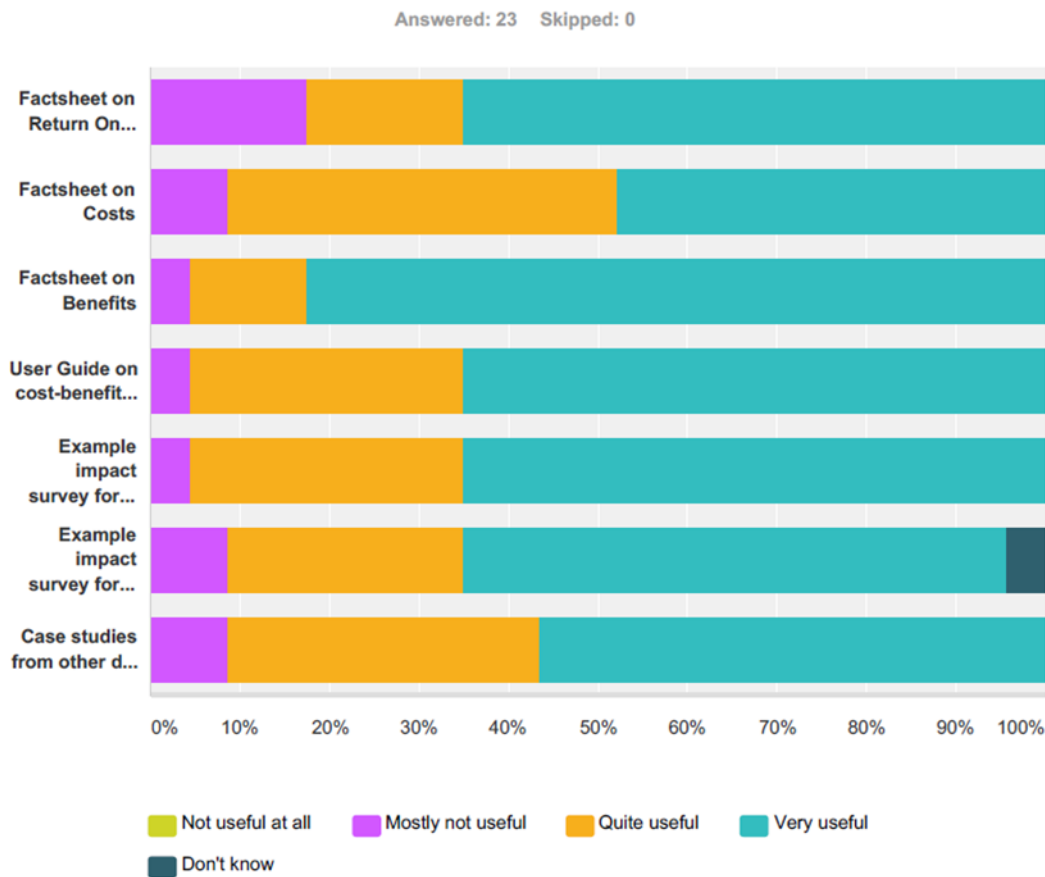
THEMES



Lack of standard return on investment formula that could be used for funders. Co-ordinated investment in innovation to deliver growth. Enabling external commercial/technical sectors to solve some problems for implementation by service.
costs/benefits advocacy programme - clear organizational structure (and resources) needed by an archive
1) Better evidence on research results of the data services users. CESSDA can help by providing recommendations for data archives and setting up some acceptable standards of monitoring these research results. Case studies on utilisation of data services would be also helpful - also to show and explain differences among different kinds of infrastructures. Of course, an improvement of data citation practices among data service users is also highly important. 2) Clear and convincing evidence of socio-economic impacts of data services into the real life of society (social innovations) and economy (industry).
A concerted effort from both the national community and the international one. Only through international advocacy there is little chance that we will get funded, and the same is valid for national efforts only. But combined effort, through well timed actions (visits at the Ministry, common PR events and workshops/conferences where Ministry officials would be invited), it's likely to dramatically increase our chances.
a support in constructing a funding model and budget anticipations for years to come
Bibliography of scientific papers using the disposal data.
Clear data on how and for what purposes datasets are being used by third parties (including commercial companies) Benefits of supranational integration of data from different data services Benefits of inter- and multidisciplinary combinations of datasets coming from different data services Clear explanation of the benefits of certification for users of the data service

Concrete solutions offering effect on the state level. Usefulness of European collaboration. Examples connected with big/open data
EU-initiated rules and regulation for collection, curation and dissemination research data. Communication of golden standards across Europe
Existence of similar national disciplinary/ institutional data centers that would function on comparable level and that would be oriented into cross-disciplinary collaboration. There are in humanities some units that build collaboration related to DARIAH, and that kind of cross-disciplinary exchange and mutual support proves beneficial. So, advocacy that would be oriented to make case for similar services across disciplines is missing, and there in particular comparisons with other countries can help. Otherwise, more widespread knowledge and more information about the existence of service and its supply, also in relation to services and support in access to international partners' holdings, with all common arguments about the role and benefits, would help.
More pressure for real support for the ERICs from the European level. Currently only one ERIC is properly financed in [xxx], in other cases (including CESSDA), [xxx] is in the position of an observer, receiving only limited financial support.
National collaboration
Some proof that data services are an investment with significant economic benefits.
The European Commission from time to time needs to speak louder about the pan-European research infrastructures and to drive national decisions in this area in more coordinated way.
The Ministry has (unofficially) inquired about analysis of costs and benefits.
There is no clear mandate for archiving the data that were collected through the financial support of the funding agencies. Funding agencies still do not feel ready to make this call.
To allow the signature of the MoU without having to set the national funding of the data service (at least not in the short term). Once in the infrastructure, we can bring funds.
We should have built a sustainable funding structure
Weaknesses, delays in setting up a more efficient institutional framework concerning [xxx] RIs at national level.
What is missing is the provision of data to demonstrate and prove the benefits in Qu. 6. A lack of a mechanism that enables us to gather data on citations, publication details i.e. the research outputs derived from the re-use of a [xxx] dataset; and the subsequent use / application of those research outputs to benefit policy, etc. Could this be expressed in some sort of graphical / cycle form?

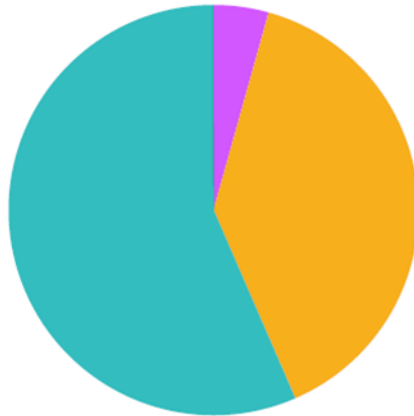
Q10 HOW USEFUL WOULD YOU FIND THE FOLLOWING TOOLS IN BUILDING A CASE TO DEMONSTRATE THE ACTUAL OR POTENTIAL IMPACT OF THE DATA SERVICE TO POLICY MAKERS AND FUNDING DEPARTMENTS?



	Not useful at all	Mostly not useful	Quite useful	Very useful	Don't know	Total
Factsheet on Return On Investment	0.00% 0	17.39% 4	17.39% 4	65.22% 15	0.00% 0	23
Factsheet on Costs	0.00% 0	8.70% 2	43.48% 10	47.83% 11	0.00% 0	23
Factsheet on Benefits	0.00% 0	4.35% 1	13.04% 3	82.61% 19	0.00% 0	23
User Guide on cost-benefit methods and advocacy	0.00% 0	4.35% 1	30.43% 7	65.22% 15	0.00% 0	23
Example impact survey for users	0.00% 0	4.35% 1	30.43% 7	65.22% 15	0.00% 0	23
Example impact survey for depositors	0.00% 0	8.70% 2	26.09% 6	60.87% 14	4.35% 1	23
Case studies from other data services	0.00% 0	8.70% 2	34.78% 8	56.52% 13	0.00% 0	23

Q11 HOW USEFUL TO YOU IS A TOOLKIT IN ENGLISH?

Answered: 23 Skipped: 0



Not useful Might be useful Quite useful Very useful N/A

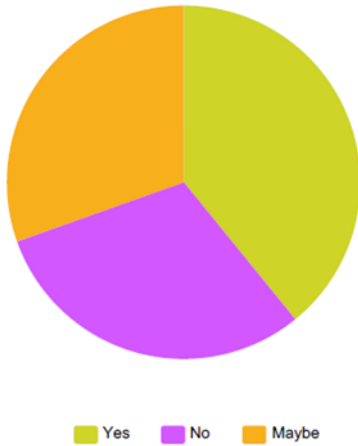
ANONYMISED COMMENTS

Generally, there's no problem to use materials in English (especially on the level of ministries and science financing organizations). From other side, (short) materials in [xxx] may be more conspicuous (especially for policymakers). Also materials in [xxx] may help to get support on broader basis (for example, local governments) and they may also help to get more supporters in the future (teaching of students, training, etc.).

I don't exactly know what a toolkit is (probably something specific to the SaW project, but I suppose it's something useful for the advocacy effort. English is fine for both the local community and the Ministry decision makers.

Q12 WOULD YOU TRANSLATE LOCALLY ANY OF THE TOOLKIT INTO YOUR NATIONAL LANGUAGE(S)?

Answered: 23 Skipped: 0



ANONYMISED COMMENTS

Dependent on the content / usefulness of the toolkit.
English is national language.
In particular cases.
Partially; depending on financing situation
Since this would be a tool for experts, I don't think translation into [xxx] is necessary. If there would be funding, why not. Summarised results should be translated anyway.

## Q13 IS THERE ANYTHING ELSE YOU WISH TO ADD?

## ANONYMISED COMMENTS

Can you, please, provide us with the file with our own answers, to keep the record of what we supplied. [xxx].
Especially difficult is to assess the impact of our service to the academic community. The method suggested by our funders and evaluators is to capture the number of publications created with the data archived here. This is extremely difficult to be captured.
In local case study I try to describe problems more concretely. Anyway, because situation may be vary very much on different countries (small ones vs large ones, different historical backgrounds, etc.) there's probably no very universal arguments; local circumstances should be taken into account as much as possible.
Perhaps it could be a good idea to organise events in countries which have the weakest chances of getting funded (those which didn't manage to participate in the current CESSDA process), but which have a lot of potential for funding should the activities are done right. We can easily collaborate to organise at least one such event in [xxx].
Practical toolkit to help capture data and demonstrate impact would be really beneficial. Thanks!
There are two different views implemented in evaluations of research infrastructure: (1) scientific excellence, i.e. internationally recognised quality and originality, (2) importance for national priorities (socio-economic impacts). Resulting two types of requirements are sometimes inconsistent, e.g. "high significance on national level" fits to description of the mid-point on the scale of scientific excellence. Thus there are two different sets of arguments, one is needed for international reviewers, another one for officials from national ministries.