

Keeping Research Data Safe:

benefits of research data preservation



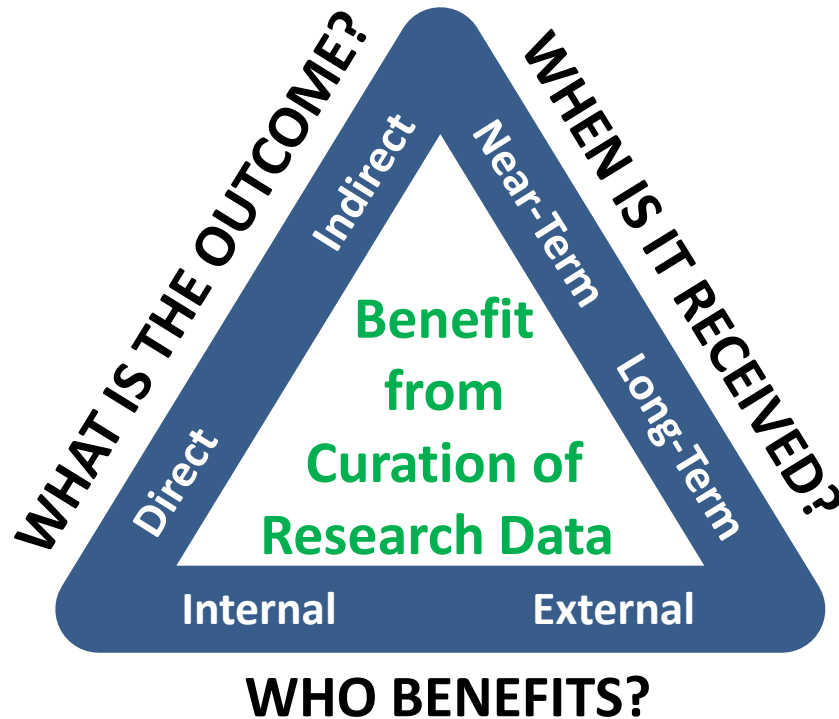
Neil Beagrie (Charles Beagrie Ltd)

PASIG conference Oct 2012

KRDS Benefits Analysis Toolkit

The Framework

- Framework arranged on 3 dimensions with two subdivisions each; Pick list of common generic benefits
- Individual benefits identified and assigned within this



Worksheet

KRDS BENEFITS FRAMEWORK – WORKSHEET (V.6.4 – JUNE 2011)

Introduction

The Keeping Research Data Safe (KRDS) Benefits Framework is a tool for identifying, assessing, and communicating the benefits from investing resources in the curation/long-term preservation of research data. This Worksheet accompanies the Guide to the KRDS Benefits Framework, which provides guidance on its use.

Pick List of Popular Generic Examples of Benefits for you to use/ delete/add to/ modify and expand as needed to help populate your Benefits Framework

| | |
|---|---|
| New research opportunities | No re-creation of data |
| Input for future research | No loss of future research opportunities |
| Motivating new research | Secures value to future researchers & students |
| New research funding | Protecting returns on earlier investments |
| Increasing research productivity | Lower future preservation costs |
| Stimulating new networks/collaborations | Planned management from an early stage in the research life-cycle is ultimately more cost-effective than late intervention (providing proper selection of what to keep is done) |
| Knowledge transfer to other sectors | |
| Knowledge transfer to industry | Re-purposing data for new audiences |
| Commercialising research | Use by new audiences |
| Increasing skills base of researchers/ students/staff | Re-purposing methodologies |
| Increasing economic growth | Enhancement of research tools and software by testing on a range of well-c urated datasets |
| Catalysing new companies and high skills employment | Scholarly communication/access to data |
| Verification of research/research integrity | Long-term re-use of well c urated data |
| Fulfilling organisational mandate(s) | Short-term re-use of well c urated data |
| Fulfil research grant obligations | Adds value over time as collection grows and |

Dimension 1: What are the outcomes?

| Direct Benefits | Indirect Benefits (e.g. costs avoided) |
|-----------------|--|
| [insert here] | [insert here] |

Dimension 2: When are the benefits received?

| Near-Term Benefits (up to 5 years) | Long-Term Benefits (5 years+) |
|------------------------------------|-------------------------------|
| [insert here] | [insert here] |

Dimension 3: Who benefits?

| Internal Benefits | External Benefits |
|-------------------|-------------------|
| [insert here] | [insert here] |

Toolkit & Components

The Benefits Analysis Toolkit

Tool 1



Guide



Benefits Worksheet

KRDS Benefits Framework

Tool 2



Guide



Impact Worksheet



**Value Chain + Impact
Worksheet**

**Value Chain +
Benefits Impact**

Value + Economic Impact Analysis

Charles Beagrie Ltd + John Houghton (Victoria University)

Methods being applied to:

Economic & Social Data Service - report published

Archaeology Data Service - in progress

British Atmospheric Data Centre - in progress

Investment & Use Value (Direct)

Contingent Value (Stated)

Efficiency Impact (Estimates)

Return on Investment (Scenarios)

Wider Impacts (Not Measured)

Survey User Community (registered users)

Wider User Community

Wider Research Community

Society

Investment Value
Amount spent on producing the good or service

Willingness to Pay
Maximum amount user would be willing to pay

Willingness to Accept
Minimum amount user would be willing to accept to forego good or service

Survey User Community
Estimated value of efficiency gains due to using service

Increased Return on Investment in Data Creation
Estimated increase in return on investment in data creation arising from the additional use facilitated by service



Use Value
Amount spent by users to obtain the good or service

Consumer Surplus
Total willingness to pay minus the cost of obtaining

Net Economic Value
Consumer surplus minus the cost of supplying

Wider User Community
Estimated value of efficiency gains due to using service

ESDS Value/Impact Analysis

benefit/cost ratio of net economic value to ESDS operational costs (**5.4 to 1**) and;

the increase in returns on investment in data and related infrastructure arising from

additional use facilitated by ESDS (**up to 10 to 1**).

Further Information

KRDS webpage:

www.beagrie.com/krds.php

ESDS Impact Study Report:

[http://www.esrc.ac.uk/images/ESDS Economic Impact Evaluation tcm8-22229.pdf](http://www.esrc.ac.uk/images/ESDS_Economic_Impact_Evaluation_tcm8-22229.pdf)

ADS Impact Study Website:

<http://archaeologydataservice.ac.uk/research/impact>

BADC Impact Study Website:

<http://www.beagrie.com/badc.php>