Benefits from Research Data Management in Universities for Industry and Not-for-Profit Research Partners

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INTRODUCTION

Industry and private sector partnerships alongside public sector and voluntary sector partnerships are key elements of many university research programmes. Frequently partners sharing their practice, results data and laboratory methodologies can lead to vital knowledge transfer activities, improved services and products, creation of spin-out companies and further investment in the Higher Education sector.

As part of the Research360 project at the University of Bath, we are examining the data management implications, challenges and benefits associated with Faculty-Industry and Faculty-Not-for-Profit research collaborations. As part of this work, we have developed a summary list of stakeholder benefits that can arise from research data management in these collaborations. This list will be disseminated and shared with the research data community in Bath and other universities and with their research partners. We hope the generic list can be used as a brainstorming tool and assist in articulating benefits for selected stakeholders from research data management. Users can sharpen these short generic expressions of benefits into more focused value propositions for specific stakeholder audiences as required.

We have based the summary list of Stakeholder benefits on approaches and formats developed by the Keeping Research Data Safe (KRDS) projects, particularly aspects of the KRDS Benefits Framework. The benefits identified are drawn from the University of Bath and other university research data management projects with relevant research collaborations. Some benefits are attributable to both research data management and the collaboration.

Benefits are listed first for the university community, sub-divided by its key stakeholder groups (academic staff and researchers, students, professional services, and the institution respectively); then for external partners (sub-divided by industry and commerce, public/voluntary sectors, government, and society respectively).
## Benefits to University Community

### Academic Staff and Researchers
- Improve possibility of success in research funding by addressing any concerns around data management.
- Safeguarding your data against potential loss.
- Provision of data as teaching resources.
- Lifting of previous barriers to use as a result of a not easily utilised infrastructure.
- Global visibility and citation of outputs enhancing personal reputation.
- Attract new collaborators via data and data management tools and accelerate deepening of existing relationships.
- Increase opportunities to re-use data yourself.
- Increased uptake when data is available over longer time frame to help bridge the lag between academic research and industrial R&D.

### Students
- Safeguarding your data against potential loss.
- Improve data skills and enhance employability.
- Visibility of research outputs to enhance early career development.
- Expanding student learning, research, and project opportunities by enabling access to research data.

### Professional Services
- Closer working partnerships with Faculty researchers.
- Informed business planning, decision-making and investments leading to sustainable infrastructure solutions.
- Support in patent issues such as proof of provenance through improved use of version control.
- Integrated technical platforms resulting in joined-up operational processes and workflows.
- Optimal staff support structures ensuring more co-ordinated and coherent service delivery.
- Increased capacity and capability through enhanced staff skills.
- Development of new roles and responsibilities creating opportunities for career progression.

### Institution
- Fulfil EPSRC/Research Integrity and other funder/professional expectations.
- Position the University to increase its funding.
- Enhanced global reputation through recognition of the quality of research outputs and data infrastructure.
- Attract new collaborators and accelerate deepening of existing relationships.
- Graduate employability increased through university partner connections and student data skills.
- Reduction of risk for sensitive data if data transfer is secure.
- Cost efficiencies from shared data services.
- Strengthening of University position when responding to FOI requests.
<table>
<thead>
<tr>
<th><strong>Benefits to External Partners</strong></th>
<th><strong>Industry and Commerce</strong></th>
<th><strong>Public and Voluntary Sectors</strong></th>
<th><strong>Government</strong></th>
<th><strong>Society</strong></th>
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<tbody>
<tr>
<td><strong>Industry and Commerce</strong></td>
<td>Secure access/transfer mechanisms for commercially sensitive data.</td>
<td>Secure access mechanisms for personally sensitive data encouraging wider individual subject participation in new research.</td>
<td>Knowledge transfer to other sectors.</td>
<td>Increase access to research data enabling uptake or reuse.</td>
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<td>Improved data workflow.</td>
<td>Supporting digital delivery of public services.</td>
<td>Data skills of workforce and benefits to economy.</td>
<td>Data supports research integrity and validation.</td>
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<td>Efficiency savings from capture and use of data within company.</td>
<td>Efficiency gains from re-use of existing data.</td>
<td>New economic activity and tax revenues based on data services and tools.</td>
<td>Enable citizen science and public engagement.</td>
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<td>Improved clarity of IP ownership.</td>
<td>Access to students and academics with relevant data skills and interests.</td>
<td>Visibility of outputs from public funding of research.</td>
<td>Accelerated acquisition of new knowledge and discoveries from data-intensive science.</td>
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<td>New products and services based on data.</td>
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<td>Access to students and academics with relevant data skills and interests.</td>
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<td>Lower level of data management barriers for SMEs as a result of partnering with university with good research data infrastructure.</td>
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<td>More reference data sets available to test new approaches.</td>
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ACKNOWLEDGEMENTS

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