

Harnessing data:

Business cases for data projects *BETA*





BETA version

The content in this section is available in a BETA version and is currently being reviewed.

Please send any comments and suggestions, additional resources and/or case studies that may help to improve or update this content to:

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Business cases for data projects

Data in any organisation is usually under-utilised – it always has been, and probably always will be. Like the range of functions on a music system or PC, you only need and use a small proportion of what's possible. However, we need to do better with data for public services. Data is often messy, locked into proprietary systems or team domains, held in different and incompatible formats, of questionable quality and without any formally assigned responsible owner to fix issues. Just getting this data in one place, tidied up and organised is a major project undertaking, often crossing traditional service boundaries and territories. This is the pre-cursor project to any attempt to start the more sophisticated data analysis, AI or customer service insight projects.

Wherever you are on your data journey, you need to choose your project carefully. It is not easy to introduce new data practices since this will usually require new skills, capacity structure, governance and cultures. Choosing the curtains before you've put in the windows (or even the foundations) on a new house is like embarking on the fun parts of data exploitation without doing the ground work first – it will probably be a waste of time.



Neil Crump was the UK's first local authority Chief Data Officer. He established the Worcestershire Office for Data Analytics (WODA), jointly funded by the NHS, Police, LEP and district councils with the county to use data to deliver critical improvements to multi-agency service delivery. Projects have covered a range of topics including the investment in skills and capacity, alongside the introduction of new governance to support an on-going project.





Business cases for data projects



Questions to ask (and to answer):

- Who are the stakeholders? – IT, legal, audit, finance, line of business managers, citizens, partners, suppliers?
- Has it been done before (references and case studies elsewhere to call on)?
- How will it save money and improve services? For example, in terms of more timely and targeted intervention?
- What benefits can be quantified and which are ‘softer’ benefits that are hard to quantify?
- What is the risk profile of the project and how can risks be managed, defined, communicated and mitigated?
- Is there clear and effective governance and leadership? Do the ground work first to increase the chance of success.
- Do you have a clear project purpose/aims and measurable outcomes, also are methods agreed (e.g. agile)?
- Do you have an agreed communications plan and the involvement of interested parties, including supplier and partners? It must not be an ‘IT project’
- Have you completed a project ‘discovery phase’ to surface issues such as:
 - Data issues? E.g. quality, privacy, standards,
 - Where is the data, who owns it, how to access it and link it?
 - Technology implications and impact?
 - GDPR implications and general cyber and data privacy needs?
- In setting timescales consider what are quick wins and what will take longer. Do not oversell outcomes. Are you being clear in separating out longer term data vision and business outcomes from short-term investment and progress steps?
- Have you been able to identify and to address blockers and opportunities in equal measure?
- Is the financial case credible, signed up to by Finance? Is it a revenue opportunity?
- What does a good information management strategy or data project business case look like to the CEO?



Preparing Your Data Project Business Case

Launching a data project, perhaps to create a central data hub, feeding systems and services across multiple teams and services, is a high risk and challenging process unless the necessary groundwork has been undertaken. The following describes a simple three-step preparation plan:

STEP 1:

- Data policies
- Data architecture
- Check and understand information maturity levels
- Establish effective information governance
- Establish data asset owners
- Ensure roles are clear

STEP 2:

- Define targeted outcomes (measured and subjective)
- Establish the questions to ask from the business case
- Described the user case value
- Establish project governance and stakeholders
- Acquire tools and capability to use them (MDM, data analytics)
- Establish necessary data partnership agreements (e.g. MASH)
- Define and manage inherent cyber risks

STEP 3:

- Define early intervention steps – trackable and measurable – e.g. a pilot
- Establish the projects team – skills, resources, capacity required
- Get the business case agreed
- Start the data work with appropriate and timely valuation (e.g. data quality checks)
- Establish the minimum viable projects (ie use and agile method to fail fast and learn)
- Put in place the necessary internal and external communications





Preparing your data project business case

Examples from the Socitm and Jisc (formerly Eduserv) roundtables indicated a number of priority areas where data can make a significant radical difference to what we do and how we do it:

- Local authorities working with police, in particular areas such as licensing data
- Using the master data management approach to detect and to prevent fraud
- Improving the integration of health and social care working to reduce costs and improve outcomes
- Linking data across different data sets to identify and even anticipate crime, troubled families, or environmental pressures

The point is that we need to be grounded in the problems that people have and what local public service organisations are seeking to resolve, based on trusted data, especially when it has been linked to create new insights. Without that trust you risk making serious mistakes or the ability to convince decision-makers why change is necessary.





Data everywhere ... but you see the wood for the trees ...

This is the challenge for your data analysts and other data specialists – as organisations drown in a deluge of data (or get lost in a data forest) how can it be harnessed to make greater business intelligence? This certainly makes the building of a business case hard, even when using evidence from case studies. Our survey respondents said that it is not always possible to get a clear financial payback.

There is a general concern that there is just too much data, and too many complexities in linking data and understanding everything.

A data project needs to start with some simple and basic foundations, yet ensure that those are sufficiently solid, in order to form a firm basis to grow and to adapt data use, over time.



Barriers to a Data Business Case

The data workshops we had examined the biggest barriers to data projects for public sector data practitioners. The 'top 10' list of challenges were as follows:

Topic	Challenge	Solution
Technology	Having the necessary tools for data management and exploitation. There are so many options, so many demands and some of the tools require significant investment or new skills	Plan out your data strategy and prioritise the tools you need. This will take time and requires segmentation and grouping of the types of data tools required. Consider the portfolio of existing data analysis tools – which are fit for purpose (or satisfactory) and which realistically will need to be replaced or upgraded. Use this to help make the business case for investment and prioritisation of the training and data skills required
Skills	A wide range of skills issues will face a public service organisation modernising its approach to data. Some of this will be in specialist areas, but there will be wider executive and front line staff training required as well.	Some skills can be acquired in areas such as audit and IT through normal development of staff capacity and capability building. But there is a wider change needed across a data driven organisation in terms of awareness and cultures, and this is best led by HR supported by IT professionals. A spectrum of skills can be tackled in a simple programme, from data risks awareness, to data sharing and the use of tools. Individual information management responsibilities and awareness need to be backup in related staff policies, training and where necessary job definitions.
Culture and fear of change	The fear of change was seen as varied in the discussions – fear of technology, fear of artificial intelligence dehumanising, cyber risk, or just worried about important decision-making that is based on complex and often hard to understand computer data modelling.	Some of the cultural issues are addressed in the skills development (above). But others require a wider conversation, led by the executive team. A clear strategy for digital inclusion, digital design principles and a strong cyber approach (from top to bottom of the organisations, with political oversight) will help. Leadership is key, and all senior managers need to understand the implications of data management in a digital operating model. These are difficult topics to build into a business case for a data project which cannot ignore these aspects.
Fragmentation of data governance	Much of the way data is managed in public service organisations has grown organically over time and has become a complex web of responsibilities, often with overlaps and gaps. This makes a single, coherent and joined up approach to data much more difficult to achieve.	A starting position is to list the various roles and responsibilities, from the specialists roles (such as Caldicott Guardian, DPO, Audit, Legal, IT, Finance) to the wider responsibilities inherent in every job description. A range of policies will need to be updated (e.g. in HR, democratic services and IT), and some new roles created (such as chief data officer, data scientists and the other functions in the Field Guide). From this it will be easier to establish new governance arrangements for data, including data risks, information management, systems, data protection, and more. Ideally there will be a link from the executive board and politicians frontline staff for responsibilities, including the support from specialist areas.
Suppliers, software and technology	There was much concern expressed about the behaviour of some suppliers to the public sector as well as the immaturity of how supplier relations were being managed. Examples included pushing proprietary software that locks data into incompatible systems and formats, and outsourcers that make it hard or costly to exploit data and new technologies.	All procurement should make clear the priority placed on open APIs and the uncoupling of data from systems and processes. Open source should be prioritised, and data architectures should be shared with suppliers so they can understand the organisations policies. Contracts that lock public services into data-restrictive practices should be planned for termination, including outsourcing and systems – simply because the future will demand flexibility. Legal and procurement teams need to understand this supplier policy, and departments should be accountable for open data policies, moving away from tailored IT procurement.
Data quality and unstructured data challenges	Data quality issues are often only exposed when a system is upgraded or linked, in testing, or when a serious incident occurs as a result of a decision taken on poor quality data. It is better to ensure data quality issues are dealt with before they cause a problem, but this rarely happens.	Before any major data project starts, consideration of data quality is needed. Simple tests and use of data matching tools can assist with common data quality issues, but the way in which data is maintained and updated should also be assessed to ensure this is adequate. This might include how notifications of address changes take place and how quickly personal data is changed with changes in circumstances. Low-code phone apps can help to enable citizens (and staff) to change their own data, with moderations when necessary. Adequate time and priority needs to be given to data testing for upgrades and changes. Redundant, obsolete and trivial (ROT) data should be illuminated wherever possible
Not having a data strategy	It is fair to say most organisations have too many strategies! A strategy for every service, function, and process – IT, digital and now data? But in practice the specialists involved in this Data Field Guide all agreed that a strategic approach to data is badly needed and should be written down. Without this sort of structure prioritisation of risks and investment is hard, and a silo-ed model of data governance and systems acquisition can continue unchecked.	Develop a short and simple data strategy that covers: <ul style="list-style-type: none"> • Data and information policies, guidance and procedures • Data and information governance, reaching board level, defining reporting on data risks and potential • Developing skills and awareness and changing cultures, working with (or led by) HR • Priorities for data developments – big data projects, acquisition of new data techniques and technologies – linked to the wider strategic ambitions and challenges of the organisation • Building specialist data skills and capacity in places such as Audit, Finance, IT, etc
The use of 'data jargon'	IT professionals, consultants and the industry in general love the jargon. We talk of 'data disruption', 'single view of the customer', 'big data', and more. The trouble with these terms is that they are often not defined and 'slip off the tongue' easily in data and digital strategies, without anyone really understanding the implications.	The answer to this one is simple – avoid jargon entirely or where it is unavoidable, define and describe it carefully and simply in terms of practical outcomes. Avoid confusing terms such as 'digital technology' (digital is not technology, it is a way of working) and be clear on the distinction between what is business change and what is technology change since these are often conflated.
Understanding citizen data responsibilities	Our panels of experts were worried about citizens keeping pace with the changes in public service digitisation programmes. Sometimes there are assumptions about the wider user understanding of and readiness for digital services.	Just because many people shop online does not mean they are ready and equipped to use complex public services delivered electronically. Often public services are more complex and the people who need to access them are least able to do so for many reasons (for which they are seeking support in the first place!). Programmes of support and great care in the design of digital services can help, but public services also need to retain essential face-to-face and "human" contact to help those who struggle with electronic methods and depend on public services.



Additional resources

- ODI resources:
 - The [Data and Public Services Business Case Canvas](#) (as part of the [Data and Public Services Toolkit](#))
 - How to make a business case for open data <https://theodi.org/article/how-to-make-a-business-case-for-open-data/>
- The business case for data analytics (Phocas) <https://www.phocassoftware.com/business-intelligence-blog/making-the-business-case-for-data-analytics>
- How to Make the Business Case for Analytics (Gartner) <https://www.gartner.com/en/documents/3119817/how-to-make-the-business-case-for-analytics> (limited access)
- How to Create a Business Case for Data Quality Improvement (Gartner) <https://www.gartner.com/smarterwithgartner/how-to-create-a-business-case-for-data-quality-improvement/>
- 17 Steps to Implement a Public Sector Big Data Project (CIO.com) <https://www.cio.com/article/3401525/17-steps-to-implement-a-public-sector-big-data-project.html>
- How to Create a Compelling Data Quality Business Case (Data Quality Pro) <https://www.dataqualitypro.com/blog/create-data-quality-business-case>
- How to Build Business Cases (Dummies) <https://www.dummies.com/programming/big-data/how-to-build-business-cases/>
- Seizing the data opportunity A strategy for UK data capability (GOV.UK) <https://www.gov.uk/government/publications/uk-data-capability-strategy>





Case studies

- Business Intelligence Strategy 2018 (Nottinghamshire CC) <https://www.nottinghamshire.gov.uk/policy-library/46147/bi-strategy>
- Devon County Council to become 'data-driven organisation' (PublicTechnology.net) <https://www.publictechnology.net/articles/news/devon-county-council-looks-become-%E2%80%98data-driven-organisation%E2%80%99>
- WODA Business Case for Change (Worcestershire CC) http://www.worcestershire.gov.uk/woda/download/downloads/id/2/woda_business_case_for_change_document.pdf (Need to copy and paste this link for it to open)
- North Tyneside Council saves through new data strategy (GovTech Leaders) <https://www.govtechleaders.com/2018/08/06/case-study-north-tyneside-council-save-103-hours-every-month-through-new-data-strategy/>
- Maturity of local government use of data (Audit Wales) <https://www.audit.wales/publication/maturity-local-government-use-data>
- Local Transport Data Discovery (GOV.UK) <https://www.gov.uk/government/publications/local-transport-data-discovery-findings-and-recommendations>

