
THE BUSINESS SERVICES ASSOCIATION

Driving the data revolution in public service delivery

November 2015





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FOREWORD



Mark Fox
BSA Chief Executive
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BSA members continue to be at the forefront of change. They drive innovation and transformation for their clients across the private and public sectors.

Nowhere is this trend clearer than in the digital and data space. Here, disruptive technologies and emerging trends have revolutionised the way in which services are designed, procured and delivered.

This paper lays out the excellent work being done in partnerships between the private and public sector. It highlights opportunities to take data in public services to the next level. It also offers recommendations to commissioners, service providers and service users on how even greater value can be leveraged from the data that surrounds us every day.

Case studies from BSA members illustrate the benefits that data is already bringing and offer an insight into what is possible when the private and public sectors work together to drive forward the data revolution.

ABOUT THE BSA

The BSA is a policy and research organisation. It brings together all those who are interested in delivering efficient, flexible and cost-effective service and infrastructure projects across the private and public sectors.

“Data is allowing us to take truly evidence-based decisions. It’s what I’ve described as a fundamental shift from a target culture to data culture. We’re better informed, the public is too, and this is driving up standards in public services.”

Matt Hancock, Minister for the Cabinet Office, speech “Open Government Partnership: UK national action plan 2015 launch”, 13th July 2015

EXECUTIVE SUMMARY

Data is already transforming public service delivery. From shaping the way services are designed to empowering users with more choice and control, information is fundamentally changing the way we interact with the key public services we use every day.

Data is a tool, an enabler, for better services that help organisations to meet financial and demographic pressures. Collecting, sharing and analysing data can unlock key insights into the needs and behaviours of service users to help target resources and shape services. It informs the commissioning process, highlights potential efficiency savings and identifies examples of best practice. It can identify trends to help manage demand and sharing data enables services to join-up.

Driven by leadership from the Cabinet Office, the public sector is beginning to embrace data and its potential to transform services, however, opportunities remain for collaboration with the private sector to pool their experience in innovation, skills and creating data-led change.

Furthermore, as government departments continue to embrace digital options for operations and delivery, the importance of making services user-centric is brought to the fore. Government must move fast to engage with service users, to establish the basis for common infrastructure and systems, and to affect a cultural change around data and technology.

The private sector, for its part, must bring to the table innovations driven by competition, expertise from cutting-edge digital projects, and thought-leadership from customer-facing industries. There are already outstanding examples of the public and private sector working together to deliver joined-up, insight-driven services with better outcomes for users. Atos has facilitated data sharing between local authorities, health organisations and the police in South Wales to enable better identification of citizens at risk and to inform improved and more efficient services for them in future. Meanwhile, Capita partnered with Imperial College Hospital NHS Trust to introduce a dashboard which shows key performance indicators to staff and which highlights areas for improvement in the patient journey.

These examples show where opportunities lie when the public and private sector work together using data to create more informed and seamless service offerings. The progress already made provides a strong base for further developments: using insights to reduce demand for public services and bringing services closer together for efficiency savings and a better user experience.

Making data publicly available is also key to realising its value as it supports economic growth, improves public service delivery, and promotes

The challenge is to understand what data is telling us, gain insights from it and turn this into meaningful change

transparency and accountability at the highest levels. The UK leads globally on publishing government data with over 24,000 public datasets published on the data.gov.uk website to help citizens understand how government works and how policies are made. The challenge now is to understand what data is telling us, gain insights from it and turn this into meaningful change.

There are obstacles that need to be overcome if the benefits of data are to be achieved but the potential wins are both significant and necessary.

To this end, this paper explores:

How is data used in the commissioning, procurement and delivery of services?

- Data is currently used to assess the need for services, to enable evidence based service design, in contract and performance management, and to improve choice and accountability for users.

Where next?

- Data will play a key role in the evolution of service delivery by enabling demand reduction and underpinning joined-up living services.

Issues to overcome

- Challenges will include harmonising existing data and ensuring data collection is uniform, publishing data in an accessible and useful format, and assuring data security and public confidence in data owners.

Recommendations for commissioners, service providers, and service users

- Close collaboration and a focus on data in service procurement and delivery are required to leverage the value of data now and in the future.

Throughout are case studies from BSA members on how data has been used to transform service delivery. These demonstrate where partnerships with the public sector have been successful and illustrate the opportunities for further collaboration.

Different types of data

Big data - refers to both the large volumes of data with high levels of complexity generated by traditional business activities and new sources such as social media, and the analytical methods applied to them which require more advanced techniques and technologies in order to derive meaningful information and insights in real time.

Open data - data that is made available by government, businesses and individuals for anyone to access, use and share. It is published under a licence with express permission to reuse, share and modify.

Personal data - under the Data Protection Act, personal data is data, or an opinion, which relates to a living individual who can be identified from the data itself or from related data held by the same data controller.

SUMMARY OF RECOMMENDATIONS

Data in contracts

- Commissioners should regularly collect and publish spend and performance data relating to the provision of services where appropriate.
- Providers should have a duty to go beyond minimum data requirements where there is a benefit to doing so and should inform the client of data opportunities.
- Service providers and commissioners should make full use of data analytics and reporting in contract management meetings as norm. Service delivery information should inform assessments and possible changes to delivery.
- Appropriate feedback loops should be built into the commissioning process to inform future procurement.
- In key target areas for improvement, competitions should be run to contract with third parties to develop apps or other solutions.

Data standards

- The Government should develop data standards for the public sector, setting out what data should be collected and how it should be recorded in order to ensure comparability and interoperability.
- Data Protection legislation should be revisited by Government with the view to making it fit for data-driven services. Sharing data between providers of related services should be the norm.
- An independent body, such as the Open Data Institute, should assess how softer, subjective indicators of service delivery are measured, such as outcomes or satisfaction measures, and develop standard measures for organisations to adopt.

Culture change

- Open datasets in key target areas for service improvement or cost savings should be published in a transparent and accessible format, supported by key findings if relevant.
 - Data literacy and skills should form a key component of the Commissioning Academy curriculum and commissioning teams should comprise roles across all parts of the commissioning cycle to enable insights from data to be shared.
 - Data skills amongst the general public should be improved. This will require a commitment from employers and wider society to invest in data skills and building on work already taking place in schools.
 - All organisations collecting, sharing, publishing or analysing data must ensure data is secure and engage in open and honest communication to the public about how any why their data is being used.
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DATA IN THE COMMISSIONING, PROCUREMENT AND DELIVERY OF SERVICES

The services sector and government have come a long way in recent years in collecting data and putting it to good use in commissioning, designing, delivering and managing services. Just as decisions made in a business context are based on data on market trends, consumer preferences, and revenue potential, so too is data informing evidence-based decision-making and predicting usage in the public sector.

Private companies are increasingly embracing technology and data, using it to redraw the way in which services are delivered. Data has been used successfully for better engagement with customers, to empower employees and to transform business processes. Committed leadership has been key in delivering the benefits of data and driving through business change.

Assessing need for services

Data initially plays a key role in assessing service users' needs. On a basic level, population datasets give commissioners insight into the demographics of the service user population, enabling services to be tailored to meet the needs of particular groups. For example, Clinical Commissioning Groups use information about the local population, such as age and lifestyle, to prioritise spending on appropriate services. An area with a high proportion of elderly people will require a different set of health services to an area populated by young families.

With limited resources, data can help to direct services where they are needed most, enabling providers to prioritise and make informed decisions about where cost savings could be made. For example, by collating data between different service providers, Atos enabled local authorities in South Wales to identify risk factors for vulnerable groups and create services which were targeted and effective.

Data can help to direct services where they are needed most, helping to prioritise and make informed decisions about where cost savings could be made

By analysing data, commissioners and service providers can base future contracts on the evidence of what works

Sharing data to identify those at risk in a population *Case study: Atos & South Wales Authorities*

Data sharing between public service organisations in South Wales has enabled local authorities, police and health organisations to better identify individuals and groups at risk in the area and plan services for them. Atos worked with three borough councils, a police force and a health board to match, compare and analyse their separately collected data and design a solution for integrated data collection in the future. By joining-up data, service providers were able to gain powerful insights into the characteristics that were linked to citizens being vulnerable. This enabled strategic planning and intervention, reducing operational costs and improving services for citizens.

Service design

Data has also had an impact on shaping service design. By analysing data collected over a number of years, commissioners and service providers have evidence of what works on which to base future contracts or programmes. It ensures providers are not reinventing the wheel but are using cutting edge technologies or approaches to deliver the best services possible. For people-centred services, such as training and employment support, data helps to tailor services around the needs of service users.

The private sector also offers innovative examples of how data can be used to improve service delivery. For example, Capita recently helped Prudential, Royal London and Axa gather and use data from customer service calls to analyse conversations, isolate problems and target resources accordingly. By automatically grouping similar questions, the most frequent issues were highlighted, enabling the companies to provide clear information on their website, to streamline staff answers, and, if relevant, to tackle the source of the original problem. This use of complex big data opens doors for other unstructured data, such as web logs, sentiment analysis and automated analysis of CCTV footage, to be used to provide actionable insights which would previously not have been available.



Data-driven technologies are increasingly being used to drive efficiencies in service delivery

Using speech analytics to shape service design
Case study: Capita, Prudential, Royal London & Axa

Prudential, Royal London and AXA receive thousands of customer calls daily and the conversations between customers and staff were previously an untapped resource. In 2013, Capita implemented Speech Analytics tools across client contact centres which used advanced “text-to-speech” applications to transcribe customer calls. The content was then categorised and prioritised into specific business issues to form a searchable and customisable database. Analysis of the data determined the most frequent causes of multiple calls, enabling improvements that reduced call demand. The most commonly asked questions were also revealed, distinguishing areas where information could be provided online as an alternative. Finally, silences on the lines were traced to problems agents had researching particular subjects which led to information being supplied in a more efficient format. Companies saw a 40% drop in “progress-chaser” calls and a similar reduction in setting up call-backs while complaints calls dropped 30% overall.

Data-driven technologies are also becoming readily available and affordable on the high street and to service providers. These technologies are increasingly being used to drive efficiencies in service delivery, as can be seen in Singapore, where Sopra Steria’s use of taxi location information allowed the Land Transport Authority to react to traffic problems in real time.

Tracking taxis for better traffic and fleet management
Case study: Sopra Steria & Land Transport Authority, Singapore

Traffic data collected from devices fitted in over 20,000 taxis in Singapore, provides their Land Transport Authority (LTA) with an overall view of congestion in the road network and the taxi company with information about each taxi’s status and needs. The onboard devices in the vehicles provide geographic information for emergency and maintenance calls, driver behaviour profiling, route optimisation and sustainability reports and advice. In addition, location information gathered is used in real time traffic reports which are automatically sent to the LTA and to the public via a Geographic Information System accessible online. The data has led to the more efficient deployment and servicing of taxis and the information about traffic patterns is used in real time traffic management and long term road development planning by the LTA.

Data demonstrates how contracts are performing and enables comparisons between approaches or providers

Contract and performance management

Data is vital in reviewing service provision in terms of spend, take-up of particular services, value for money, satisfaction of service users, and outcomes. For this to be effective, performance data as well as spend data needs to be available, however this is not always routinely collected.

Collecting and analysing performance data, irrespective of whether the contract is delivered in-house or by an external provider, is a feature of good contract management. Data demonstrates how the contract is performing against a range of criteria specified by commissioners, as well as enabling comparisons between approaches or providers.

Traditionally, performance has been measured against input-based KPI's focusing on how many times an activity has taken place, such as how many times the floor has been cleaned. As part of a trend towards more outcome-based commissioning, more outcome-based metrics are now being developed.

For example, at the Ministry of Defence facility, Headley Court rehabilitation centre, Sodexo aimed to achieve outcomes around patient safety and wellbeing, creating a positive view of the environment, and reducing hospital borne infection. Using a combination of customer satisfaction data, infection rates, and health and safety metrics, Sodexo showed they had improved the standard of service and delivered measureable success towards the outcomes set. The data provided clear results which demonstrated contract value and which can be used to inform the decision-making of future commissioners.

Proving positive impact through outcome measurement *Case study: Sodexo & Ministry Of Defence*

DMRC Headley Court is a Ministry of Defence rehabilitation centre in Surrey which caters to 20,000 patients each year. When the site was given hospital status in 2013, Sodexo's cleaning team had to adapt to the change from general office to clinical cleaning standards and demonstrate how facilities management helped provide a safe and positive environment for the client and end users. The team worked closely with infection prevention officers to reduce the clinical risk to patients, implemented a new Quality Management System throughout the facility, and set a 95% daily satisfaction target for both the client and patients. Sodexo were then able to collect data on infection rates, health and safety and user feedback which demonstrated their success to the contracting authority.

Publicly available data is empowering service users by facilitating choice

Choice and accountability

Data, particularly publicly available data, is empowering service users by facilitating choice and enabling the public to hold service providers to account. This is particularly important in the public sector, where it is taxpayers' money that is funding such services.

Where choice is available, data empowers the public to compare what is on offer and make informed judgements. This principle is clearest in sectors such as retail where pricing data of branded goods enables shoppers to compare the cost of their weekly shop between the main supermarkets. This has become so effective that some supermarkets now price match their competitors.

The private sector is able to bring this experience to its public sector work. For example, in Edinburgh, the public have been offered greater choice in how they engage with council services following Atos' introduction of a customer relationship management (CRM) system which enables online service delivery and greater customer access to their personal data.

Offering users channel choice and access to data *Case study: Atos & City Of Edinburgh Council*

Atos works with the City of Edinburgh Council to provide their online services to the public, underpinned by a new customer relationship management (CRM) system. The Council aligned with the Scottish Government's online authentication and identification system to create a single sign-on service to all the Council's websites, making digital transactions simpler and easier for users. This has led to increased uptake of digital services which in turn creates better data around a single customer view. The Council also introduced a "View Me" function which allows citizens to check their benefits, rent and council tax payments online, improving transparency and empowering service users to understand and use their own data.



Building Information Modelling has led to more effective and efficient ways of working such as off-site construction

Examples of how data is currently being used

Informing service delivery and driving more efficient ways of working

The facilities management services provided in an office environment enable those working there to be as productive as possible. However, flexible and remote working arrangements are challenging the traditional workspaces and requiring them to become more agile and modern.

Data capturing how a workspace is being used on a daily basis can identify ways to deliver services differently to drive efficiencies. For instance, an office may be quieter on a Monday morning or Friday afternoon, meaning that surplus areas could be closed. This saves on energy costs, enables cleaning to be undertaken during office hours, and lifts to be shut down for maintenance. Overall costs are reduced without impacting on those working in the office.

Improving delivery and reducing delays/cost

Building Information Modelling (BIM) is about data informing and enabling collaboration throughout the entire life-cycle of a building. Data is collected at all stages, design, build and operate, and informs better ways of working at all stages too. The data is fed into 3D models and COBie data files which, in turn, can be used to simulate virtual tours of buildings and simulation of construction phases, or used to locate a particular pipe for maintenance or routes for cleaning the premises most effectively.

BSA members report BIM has led to more effective, efficient ways of working and supports off-site construction which is cheaper, as installation can be modelled. Simulation also identified potential on-site problems to be resolved virtually, rather than in reality, preventing delays and reducing cost. This is a real life example of how data is already revolutionising construction services, leading to real improvements, less delays and cost savings.

Data-driven technologies and smarter ways of working

One example of new data-driven technology in the facilities management sector is self-monitoring plant and machinery, such as boilers. By regularly running diagnostic tests on itself, the boiler can send a report on its status to the site manager. If the readings are normal, no action is required. If, however, a reading is abnormal or a fault is reported, an engineer can be sent to look at it. Individual boiler data can also be combined to determine historical trends which enable the prediction and avoidance of faults.

For service providers, this means plant and machinery can be maintained as required, rather than planning regular servicing, which is more efficient and could lead to cost savings. However, these technologies often require upfront capital investment and are relatively new, so the long-term cost and potential savings are not yet entirely clear. This can make investment decisions difficult.

Reducing ICT incidents to improve efficiency
Case study: Sopra Steria & High Street Pharmacy

When working with a high street pharmacy to transform their ICT Services, Sopra Steria used data from trending and service level monitoring and reporting and compared it to previous baselined incidents to identify target areas for improvement. Over 2013/14, incident counts were reduced 50% leading to an achievement of 72% Incident Reduction from the 2012 baseline. This delivered improved stability and higher levels of availability and enabled pharmacy staff to spend more time with customers and carrying out their daily roles.

Introducing dashboards to inform the patient journey
Case study: Capita & Imperial College Hospital Trust

In the run up to deploying a new patient administration system (PAS), Imperial College Hospital NHS Trust decided to use Capita's Cymbio's Process Analytics Dashboard to enable the monitoring of data quality and operational processes across the patient pathway. The dashboard monitors a set of key performance indicators at multiple points throughout the patient pathway to highlight data quality issues and bottlenecks in the operational process. By understanding where errors were being made, the trust was able to identify key risk areas, for example, potential issues around patient safety and the accuracy of payments from commissioners.

Making UK census data open and accessible
Case study: BT & Office of National Statistics

Following the 2011 census, the Office of National Statistics (ONS), set itself a goal to ensure the information it collected and published was open to the public and accessible for users, app developers and analysts. BT helped the ONS create a data management system to import, capture and link census data for back office users. They also developed an application programming interface (API) to allow customers to import ONS data direct into apps that in turn provide innovative outputs and insights.

With over 1.6TB of data made up of eight billion separate pieces of information recorded, BT and the ONS were able to launch the census data in October 2013 and it has since been used by infrastructure planners, civil servants, local government offices, academics and more.

WHERE NEXT?

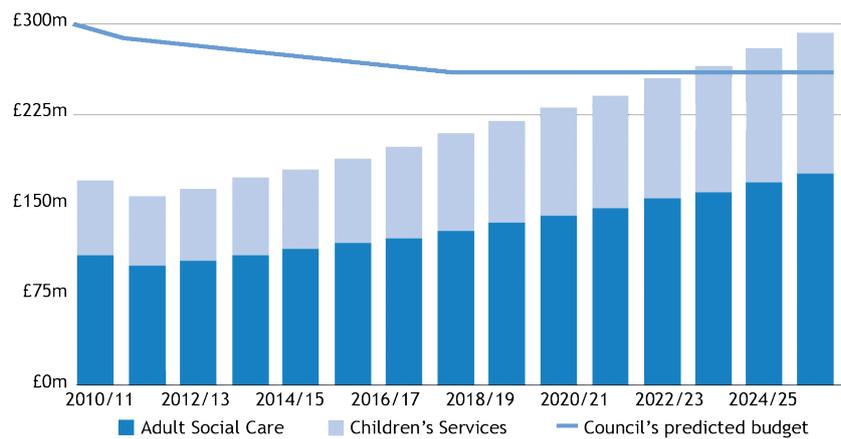
From this strong base, with data now an entrenched part of how services are commissioned and delivered, the next stage is within reach. Two key areas where the private sector can lead the way in unlocking further benefits are demand management and creating “living services”.

Demand management

With demand on public services set to increase over coming years, and pressures on budgets expected to continue, managing or reducing demand will become increasingly important. Barnet Council’s so-called “Graph of Doom” demonstrates that without radical change, the local authority will be unable to provide any services beyond statutory adult social care and children’s services. This narrative has been echoed by many local authorities.

Demand reduction can be achieved in a number of ways, including preventing the need for use of public services and encouraging self-service. In both cases, data plays a key role in achieving success.

Figure 1: Barnet Council’s predicted spend on care services



Preventing the need for people to use public services relies on being able to identify the indicators of problems arising, such as potential health problems, propensity to become long-term unemployed or factors related to crime and anti-social behaviour. In most cases, datasets developed over decades mean that identifying those at risk of relying on public services is achievable. The next step, once identified, is to put in place the right support at the right time to reduce future demand and associated cost.

Data ensures efficiency savings can be passed to the consumer through payment by results contracts



This improved data also ensures efficiency savings can be passed on to the consumer through the use of more payment-by-result contracts. Payment-by-results contracts incentivise demand reduction by tying financial rewards to proven outcomes. For example, companies may only receive the full value of a contract if they meet agreed targets effectively sharing the savings commissioners make when fewer people require a public service. Data is vital to payment-by-results, both to ensure that objectives are reasonable, achievable and represent real savings for the commissioning authority, and in providing the private sector a tool with which to identify and achieve demand reduction.

Challenges exist around long-term preventative measures as these involve research, such as that done by the Behavioural Insights Team (Nudge Unit), political will and long-term thinking, as investments made now in preventative services may not be rewarded for some time. Prison management is a good example of where investment has been made into education and skills training of offenders, with an aim to decreasing reoffending rates, and therefore demand on the prison system. Payment-by-results contracts have been trialled with private providers of prison management at HMP Peterborough and HMP Doncaster and have demonstrated positive impact on reconviction events. As pilot schemes progress, the private and public sector collect better data on which to base services in future.

Turning to self-service, the premise behind this is that empowering service users to be more self-reliant and rely less on public services will curb demand increases. This argument has particularly resonated in the health and social care sector. Telehealth devices and services, which are data-enabled technologies available to help people live independently within their own homes, can remotely monitor vital health indicators, such as blood pressure or glucose levels, with health professionals able to pick up on any discrepancies and contact the person if necessary. This reduces the need for those with long-term health conditions to regularly attend GP appointments for check-ups, improving quality of life, and helps to reduce emergency admissions to hospital by enabling health professionals to detect health risks before they become emergencies, reducing demand on these services.

The private sector can provide solutions to integrate and share data securely and offers models for joined-up services

Living Services

Shaping services around the needs and preferences of service users is the next ambitious step in the evolution of service delivery. To realise “Living Services” - services which are flexible and adapt to individuals in real time - data and digitalisation must be at the forefront of change and underpin all aspects of service design and delivery.

Joining-up services for a user-orientated experience is the first step. This requires providers to understand what services people are using, how they are using them, and to connect them up so the end-user is presented with an integrated network of services.

Data holds the key to providing tailored, seamless services, providing the information base upon which joined-up services depend. However, many related services are unable to share data, either because permissions are not in place, the data is not available, the data is not collected in a coherent way, or because data systems are not compatible with each other.

The private sector can not only play a role in providing solutions to integrate and share data securely, but can also offer models for joined-up services. In the financial sector, many banks have overcome strenuous data protection regulation and embedded silos to offer online services where customers can view not only their current accounts, but also mortgage and savings information. This has improved engagement with previously less-used functions, with more users making one-off payments towards their mortgage or depositing money in an ISA.

To go beyond joined-up services, to provide living services, providers need to not only share data, but respond to data, and create services which are built to evolve to changing needs and demands.

A pioneering example of this is GOV.UK Verify which provides a platform for service users to register online with certified private companies which then verify the user’s identity for a range of government digital services. Verify enables certified companies to check a citizen’s identity completely digitally, using an innovative series of questions based on datasets across government. Users are given a choice over which company provides the best verification service for their needs, private companies are encouraged to be creative and to branch out to work with new online services, and privacy and security is built in as there is no central storage of information.

By combining the public sector’s position as a centralised authority and holder of individual’s data, and the private sector’s ability to offer innovation and choice, a flexible, user-driven service has been created. Data is making living services a reality and partnerships between the public and private sectors will play a key role in delivering new models of working.

ISSUES TO OVERCOME

To see the potential of data unlocked, a number of barriers need to be overcome. Alongside this, all those with a stake in service delivery, including government, other public bodies, commissioners, providers, service users and the wider public need to be involved and take the journey together. The government has recognised that engaging the public in data is vital, in 2010 calling for “armchair auditors” to hold service providers to account. Although this may not yet be a reality, the message of ensuring data empowers all stakeholders remains key.

There is also a role for the media with data journalism coming to the fore as a source of a story, such as the investigation into MPs expenses, and as a way to make stories more accessible and interactive, such as the Guardian’s Data Blog or the BBC’s Budget tool which enables users to gauge the personal impact of announcements. This section looks at some of the more immediate problems to overcome.

Data collection and harmonisation

The quantity and quality of data collected is often insufficient to be able to draw out valuable insights about a service or compare performance to past programmes or similar services in other areas. There are questions around what data should be collected, who is responsible for collecting data and how often it should be collected. This is often decided on a contract by contract basis meaning the harmonisation of existing datasets is a serious challenge facing service deliverers today. Open standards are a step towards improving compatibility of datasets but a more consistent approach to data collection, which would develop normal working practices, should evolve.

How data is collected is also important; without uniformity in how spend and performance is measured, data is incomparable between organisations. Data and the software which reads and uses it also needs to be compatible; however this a chicken and egg argument as to which needs to come first. If software inputs are standardised, the way in which data is collected will normalise to reflect this. If data is collected in a standard format, software developers will adapt to the market standard.

Finally, oversight and understanding of the data which organisations hold is often lacking with datasets not fully categorised or held in inaccessible silos. Data needs to be discovered and organised so historic data can be analysed and harmonised with existing collections.

A more consistent approach to data collection, supported by open standards, is required

More datasets need to be published in a way that is accessible to the public and easy to understand

Data publication

For service users to fully utilise the potential benefits data poses, performance data on the delivery of services needs to be collected and published on a regular basis. This is true whether the service is provided in-house or outsourced. However, having open data sources publicly available is not enough on its own. More datasets need to be published in a way that is accessible to the general public and easy to understand.

The Government has made good progress and the UK is regarded as a global leader in open and transparent government. Under the Open Data Initiative, over 19,000 datasets are now available on data.gov.uk. However, this data is published in raw or machine-readable formats with the view to enabling third parties to create applications from this data. Around 350 apps have been created using data.gov.uk datasets, predominantly in the areas of public transport and mapping. Therefore, the remaining open datasets remain untapped.

In terms of providing better, cheaper services, it does not necessarily follow that simply publishing datasets online will automatically lead to third parties using these in the areas where there is perhaps greatest potential, such as health, welfare and local government services. There needs to be some datasets that are open, accessible and usable for those with basic data skills and there could be a role for commissioners in doing this. Alternatively, to support policy and service delivery in key areas where we know quality needs to improve or savings are required, third parties should be contracted to utilise datasets and develop apps or other solutions.

Data literacy and skills

Data literacy and skills to be able to collate and analyse data is variable among commissioners. A large central government department will have analysts to assess large datasets, which is very useful. However, for companies, this may not be seen as a core role to have in-house and for the wider public sector is not an option. Embedding data within commissioning processes will help awareness and skills develop. There is also a point to be made around ensuring insights uncovered by analysts within the civil service can be shared with the wider public sector.



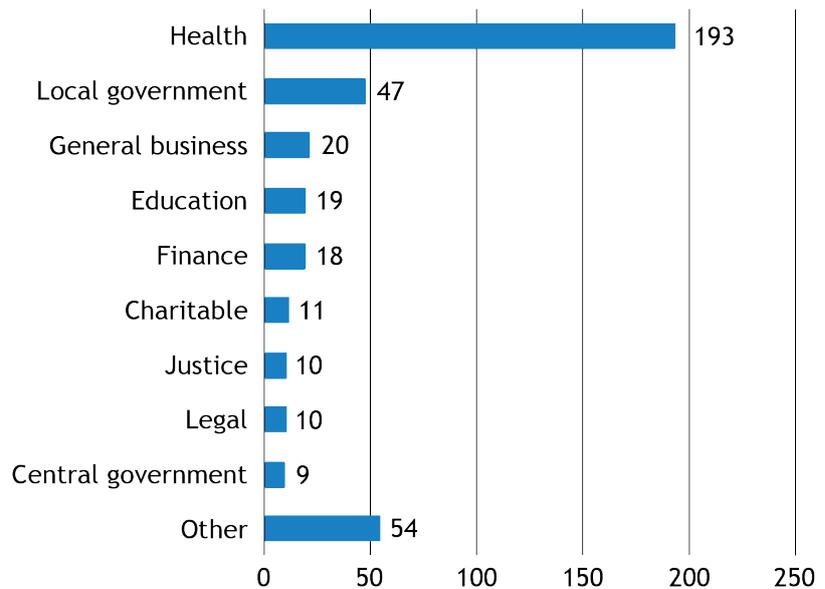
Security concerns must be overcome to prevent them blocking the use of data to unlock improvements

Data security

Data security remains one of the biggest challenges to overcome in the data revolution. In the areas where data has the most potential to drive improvements and savings, such as health, welfare and local government services, data collected tends to be sensitive due to the nature of the service.

The Information Commissioner's Office (ICO) regularly publishes statistics on data security incidents experienced by the public, private and voluntary, community and social enterprise sector. In the first quarter of 2015/16 alone it noted 391 reported incidents, of which almost half, 193, occurred in the health sector, where personal data is likely to be of an extremely sensitive nature. High-profile breaches or failures, such as those noted by the ICO or the unsuccessful roll-out of care.data, perpetuate concerns about data security and the possibility of individuals being identified through datasets.

Figure 2: Data security incidents by sector: Q1 2015/16



For many, these issues outweigh the common good of using data to improve services. Whilst these concerns need addressing, they cannot become a blocker on using data to unlock improvements. Therefore, building public trust where personal data is used is paramount. Clear communication of what data is being used, how it is being used and the benefits it is bringing should help in this regard.

RECOMMENDATIONS

Recommendations for commissioners

In commissioning:

- Routinely collect spend and performance data relating to the provision of services. This should be done whether the service is delivered in-house or by an external provider.
- Appropriate feedback loops should be built in to the commissioning process. This should not add bureaucracy into practices but should become part of normal relationships.
- Commissioning teams should comprise roles across all parts of the commissioning cycle to enable insights from data to be shared, rather than each part working separately.

Data standards:

- For the public sector, government should develop data standards, setting out core pieces of information that should be collected for each type of service and how the information should be recorded to ensure interoperability between different systems and software. These will gradually develop over time and will need continuous updating, but a baseline to work from is a good starting point.
- Government should revisit Data Protection legislation with the view to making it fit for data-driven services. Sharing data between providers of related services being delivered to the same people should be the norm, with commissioners having to give a full explanation in instances where data cannot be shared.

Culture change:

- Data literacy and skills should form a key component of the Commissioning Academy curriculum and be a personal development objective for all those involved in the commissioning process.
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Recommendations for service providers

In contracting:

- Procurers should be clear in contract specifications what their expectations for data collection are. Providers should also go beyond minimum data requirements where there is a benefit to doing so. If additional data is collected or would be useful to gain meaningful insights, there should be a duty on providers to do so and inform the client.
- If data is seen as an asset in legal terms it follows that ownership of this asset remains with the contracting authority, when contracting out. Therefore, it is the role of contracting authorities to determine what data is collected. Where possible, contracting authorities in the same sector should determine common principles around data collection and management to ensure continuity and enable comparisons across services.
- Data analytics and reporting on performance and feedback should form part of regular contract management meetings between clients and providers. Discussions should include not only the insights gained but also proposals for changes to delivery where beneficial. Contracts should be flexible to allow changes to be made.

Data standards:

- An independent body, such as the Open Data Institute, should assess how softer, subjective indicators of service delivery are measured, such as outcomes or satisfaction measures, and develop standard measures for organisations to adopt.

Recommendations for service users and the public

Open data:

- The default position should be for spend and performance data to be published on a regular basis and in detail.
- Open datasets in key target areas for service improvement or cost savings should be published in a way that is transparent and accessible for those with only basic data skills, supported by interpretation of key findings where appropriate.

Culture change:

- In key target areas for improvement, competitions should be run to contract with third parties to develop apps or other solutions.
- Data skills amongst the general public should be improved. This will require a commitment from employers and wider society to invest in data skills and building on work already taking place in schools.
- All organisations collecting, sharing, publishing or analysing data have a duty to ensure data, especially personal data, is secure. Open and honest communication to the public about how and why their data is being used, and what improvements it has helped unlock, is required to help build trust.

APPENDIX - LIST OF BSA MEMBERS

Full members

Accenture plc
AECOM
Amey plc
ARAMARK Ltd
Atos
Babcock International Group plc
Balfour Beatty plc
Bellrock Ltd
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Bouygues Energies and Services Ltd
British Telecommunications plc
Capita plc
Carillion plc
Cofely UK
Compass Group plc
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Elior UK Ltd
G4S plc
Ingeus UK Ltd
Interserve plc
ISS UK Ltd
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MYFM Ltd
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Pinnacle Group
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