

Getting more from data in government

Insights from the cutting edge of data-driven local government

nesta

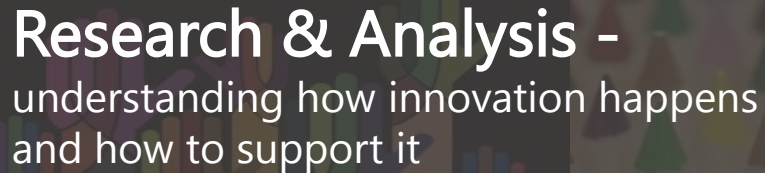
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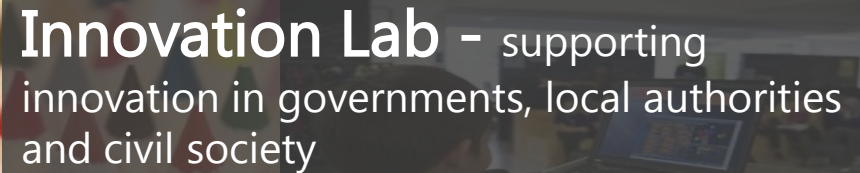
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A ~£400m endowment with a mission to help people and organisations bring great ideas to life.

The background for the "Research & Analysis" text block features a collage of images: a person walking a dog in a park, a wall with colorful graffiti, and a blue grid pattern. The text is overlaid on a dark grey semi-transparent box.

Research & Analysis – understanding how innovation happens and how to support it

The background for the "Innovation Lab" text block features a collage of images: a person working at a laptop, a person on a phone, and a blue grid pattern. The text is overlaid on a dark grey semi-transparent box.

Innovation Lab – supporting innovation in governments, local authorities and civil society

The background for the "Innovation Skills" text block features a collage of images: a person walking a dog in a park, a wall with colorful graffiti, and a blue grid pattern. The text is overlaid on a dark grey semi-transparent box.

Innovation Skills – supporting abilities to innovate via tools, training, networks

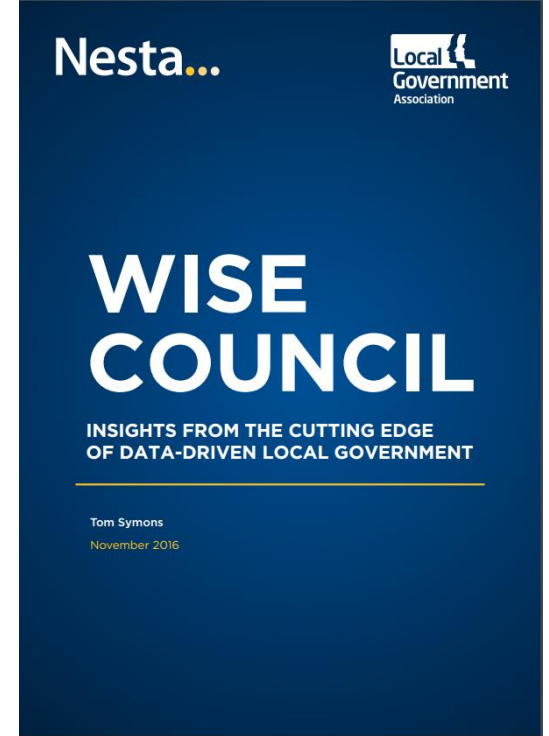
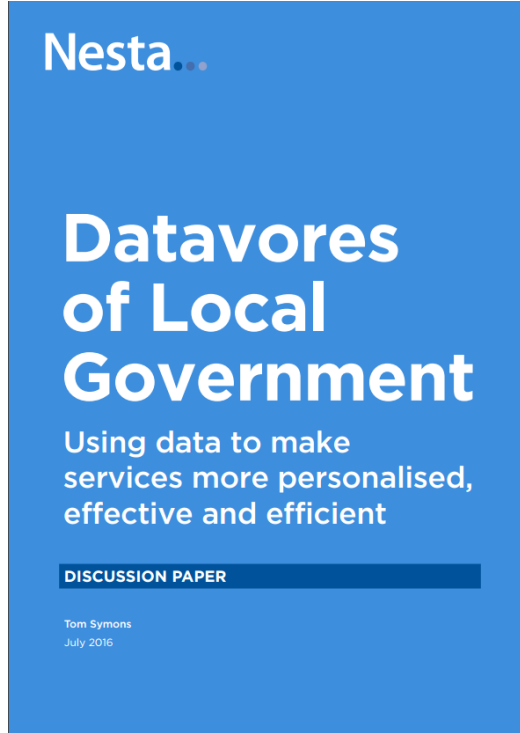
The background for the "Investments" text block features a collage of images: a person walking a dog in a park, a wall with colorful graffiti, and a blue grid pattern. The text is overlaid on a dark grey semi-transparent box.

Investments – in early stage companies, social enterprises and venture intermediaries

How are councils using data?

Through research and practical work Nesta has been looking at

- How data can benefit citizens, businesses and councils
- The challenges of doing this
- The success factors and strategies which enables councils to get more from their data
- Practical tools and guides for people working in government



We looked at case studies of leading practice to see how councils are using data

Manchester – multi-agency data warehouse

Newcastle – data-led frontline social care transformation

Kent County Council – county-wide integrated data-set

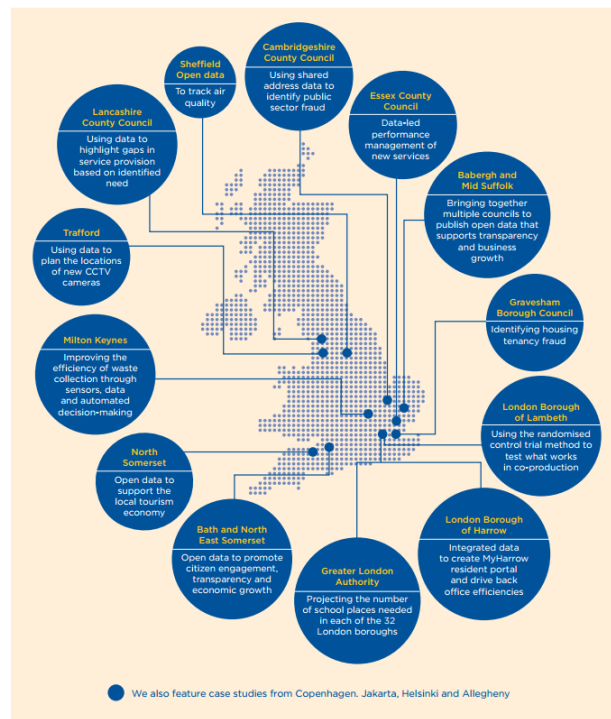
Suffolk – data-supported integrated services

Bristol City Council – citizen centric smart city

Birmingham City Council – Digital Birmingham

Camden – the Camden Resident Index

Leeds City Council – open data portal for the North



We identified 11 main ways in which councils can use data



Optimising management of place and infrastructure



Testing 'what works'



Intelligent case management



Outcomes-based performance management



Early identification of adverse events and future service pressures



Understanding and responding to citizen needs



Informing public service transformation



Streamlining operational council processes



Opening government



Supporting the local economy, businesses and innovation



Identifying fraud and error



Intelligent case management

Manchester's troubled families data warehouse

Manchester's integrated data set gives frontline social work professionals far greater quality and quantity of information about the families they work with.

In just a few clicks, they can gain a comprehensive view of a family, including interactions with other agencies, needs and genealogy.

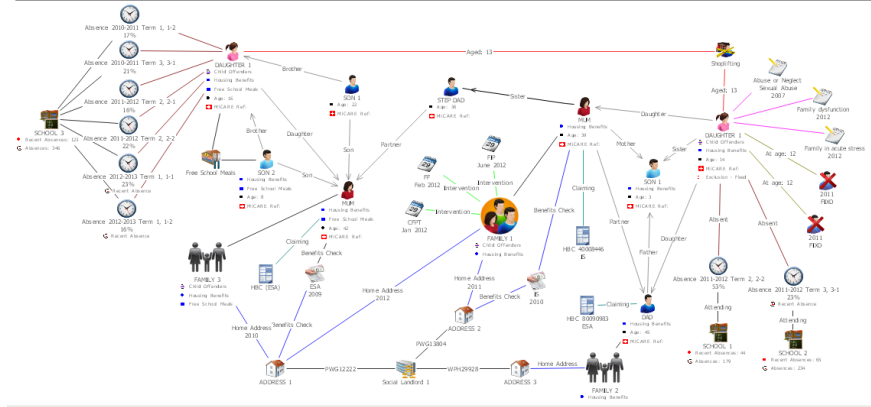
The software also makes it easier to monitor and check social workers' cases for managers, and provides a useful set of checks at the point at which a case is closed.

Impact

Saves key workers approximately three to four hours when completing an assessment. A key worker can undertake 40 assessments a year, translating into a saving of two-weeks of some key workers' time



Manchester's iBase system





Optimising management of place and infrastructure

Birmingham's sensor regulated gritting

Birmingham have been using air temperature sensors on roads to manage responses to winter weather such as ice and snow as part of an IoT demonstrator.

A wireless mesh network across all of Birmingham's major roads connects the temperature sensors and other roadside equipment such as air traffic signals, CCTV and street lights to the internet. Data from temperature sensors across the city, as well as from a gritter fitted with a sensor, is fed back to a hub to be analysed to ensure that ice, snow or flooding can be geographically pinpointed and responded to.

Impact



Reductions in expenditure on petrol and grit as only the areas in need are covered. Over time this could reduce the size of the fleet Birmingham needs to manage the city's roads



Fewer accidents and less traffic congestion mean that businesses and workers benefit from quicker travel times





Understanding and responding to citizen needs

Bristol's damp sensing frogs

Bristol's Citizen Sensing project is about using data to understand citizen needs.

e.g. 'Frog Boxes' which record levels of damp and condensation in people's homes in East Bristol.

Residents identified damp housing as a key issue

Volunteers have been given a frog box with a temperature and humidity sensor in the middle of the frog's back.

Data collects every five minutes, saving it into a simple database. A web site gives the householder the current temperature, humidity, and dew point.

This helps them to understand what they can do to reduce damp in their homes.

Impact



Helped residents to acquire knowledge and resources that will help them challenge landlords to take action. The council wants to give residents the ability and tools needed to fix problems themselves, rather than be reliant on the council.



Opening government

Leeds – Data Mill North

Leeds City Council has created [Data Mill North](#) (DMN), one of the largest open data portals in the UK

[The Leeds bin app](#) was produced through the council-run Waste Innovation Lab, a day-long hackathon

The bin app uses open data on Data Mill North to notify the people of Leeds of when their next bin collection will take place and which bin to put out.

The app also informs people of any changes to the schedule over public holidays, such as Christmas, as well as nudging people to recycle

Impact



The app saves the council from sending paper communications to residents, while reducing the chances of missed collections and complaints about missed bins.



By encouraging recycling, the app also has the potential to reduce landfill waste and associated taxes for the local authority.





Data informed public service transformation

Newcastle's data driven social workers

Newcastle used data to inform changes to the long-term social work in the city.

In the new service the population of families known to CSC are segmented by common groupings of needs, based on analysis of historical concern factor data. Segments correspond to new specialist social work units.

Each social work unit has an embedded data analyst, who works alongside the social workers. They look for hypotheses to test and analysis to perform which offer insight into how best to support families.

The unit data analysts are responsible for maintaining data dashboards social workers use to help manage their caseloads.

Impact



Data dashboards make it easier and quicker for social workers and managers to monitor caseloads and team performance



Families which are allocated to needs-based teams rather than generalist teams exit the system quicker




Insights – how to get more from your data

1. Start with a clear problem to be solved, for which data can offer impactful and actionable insight
2. Gauge the level of support for data-led work in senior leadership and work to convince them of the importance of the project
3. Start small, engage with end-users to find out where and how data could be used to make their day-to-day work easier
4. Be clear about ultimate objectives and how these will be measured
5. Ensure there are realistic financial and staff resources allocated to the project
6. Approach the work through a series of short, repeatable work cycles that enable rapid development, testing and iteration
7. Secure dedicated expertise for information governance and be specific about the purposes of sharing data
8. Test the product with end-users and take on board their feedback
9. Be receptive to making decisions informed by data
10. Evaluate the overall impact of the work against the original objectives



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