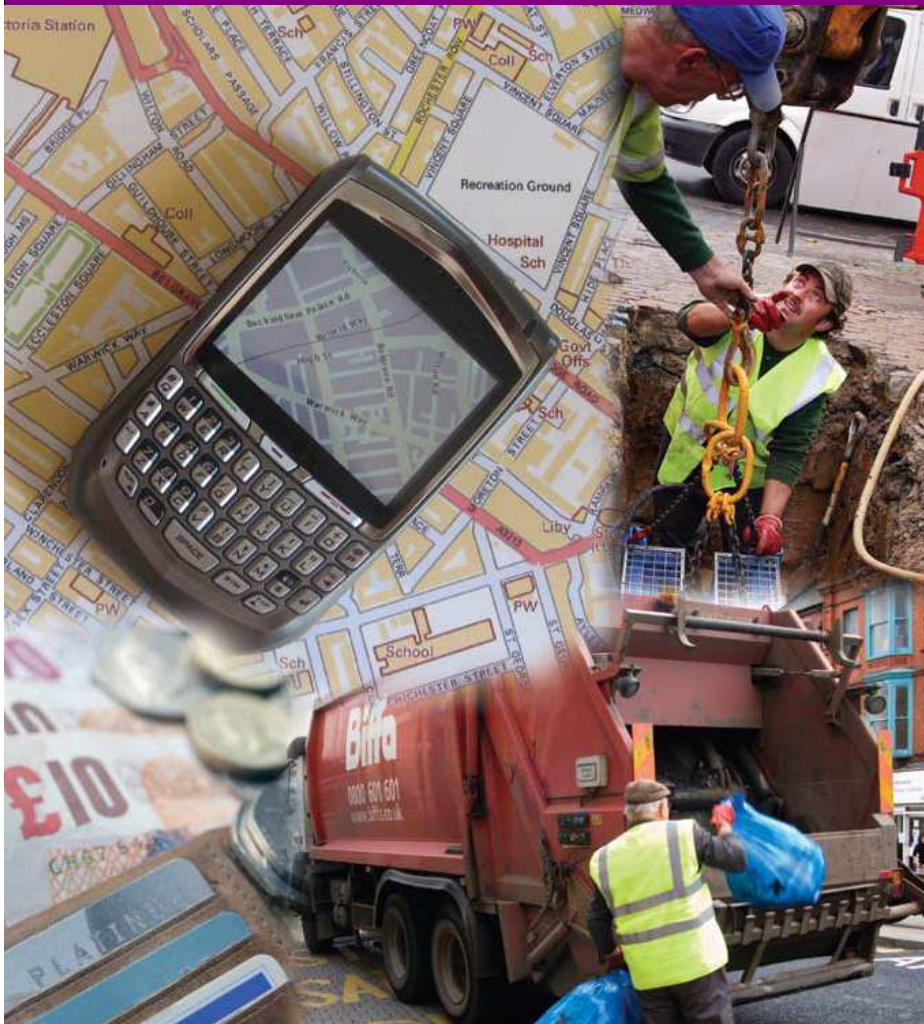


The Value of Geospatial Information in Local Public Service Delivery



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New approach to local public service delivery

- **Spending cuts and operational efficiency:** the need to reduce costs while delivering quality services;
- **Shared Services:** working across organisational boundaries and to operate through partnership (Total Place/Place based budgeting);
- **Localism** - manage services locally based on the needs of citizen and business. Shift from central to local control
- **The Big Society:** local government as an enabler of a more self-service approach that facilitates citizens and business to act for themselves;
- **Information economy:** move to 'data transparency' and the opening up of data for reuse

GI needs in local public service delivery

- Delivering services according to the needs of citizen and businesses at a local level requires knowledge about place
- Geospatial information widely used in local government in England and Wales for
 - evidence-based decision-making
 - designing and managing services and infrastructures
 - achieving and enforcing regulatory compliance
 - describing and monitoring local conditions and change; and
 - understanding and meeting customer needs locally
- Used in a range of services including
 - planning, housing, economic development, transport, environmental protection, education, health and social care

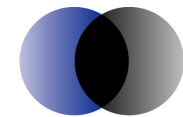


Background and purpose of study

- The economic value of GI for underpinning local services is little understood.
- Local Government Group commissioned research into the value of geospatial services in local public service delivery
- To understand where changes to current geospatial policy and practice can
 - enable better and more effective use of GI in local public service design and delivery, and
 - support cost savings in a period of public expenditure constraint.

Research approach based on Geo-economic modelling

- Use of **Geo-economics**: modelling the national economy's ability to deliver more with the same resources by using geospatial information.
- Approach of the study
 - Evidence collation of economic benefits of GI used by local public service providers
 - Assessment of social benefits alongside costs and savings
 - Estimated “knock on” benefits into other sectors of economy
 - Data assembled and fed into an ACIL Tasman's computable general equilibrium (CGE) model to assess the economic value of GI at regional and national level from 2009 to 2015.
 - Measures the productivity increases in “business as usual” and “ideal policy” scenarios as a result of GI uptake



ACIL Tasman

Economics Policy Strategy

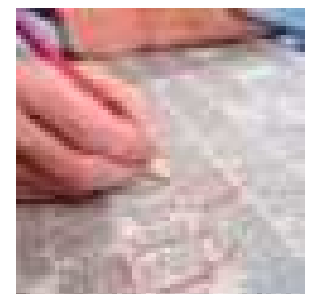
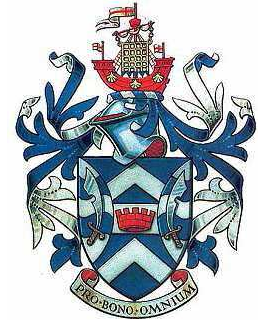
Case Study: Daventry saving in waste collection

- Use of GI to optimise refuse (waste) collection routes leads to savings:
 - Mileage reduction of 12-13 per cent delivering savings of £25,000 p.a.
 - Spare capacity to allow for vehicle washing securing savings of £17,000 p.a.
 - Employee overtime will be virtually eliminated, saving approximately £28,000 p.a.
 - The planned purchase of a new vehicle has been rationalised to a smaller new vehicle saving £25,000.
 - Reduction from 18 to 16 collection rounds and to 4 days working week with cashable annual savings of £153,000 per annum



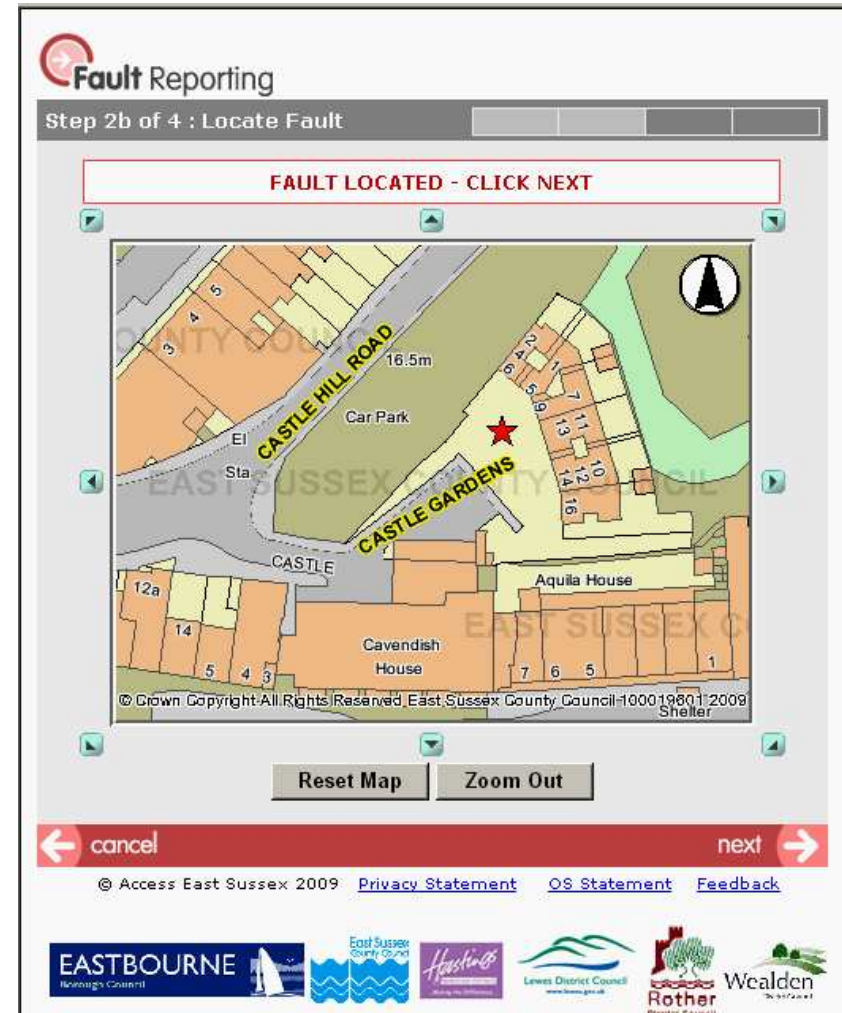
Case Study: Tendring District e2e planning

- Implementation of end to end planning systems (e2e)
 - Making the whole process of planning electronically enabled
 - Planning application received electronically
 - View applications electronically with the ability to self service – Public Access
 - Consultation of planning proposals with consultees online
- Assessed cost and savings before and after the project was implemented
- Savings of £ 49,500 annually mostly as a result of reduced personal visits to planning offices.
- Savings to citizens and construction industry identified resulting from negating travel costs and reduced disputes respectively.



Case Study: East Sussex online fault reporting

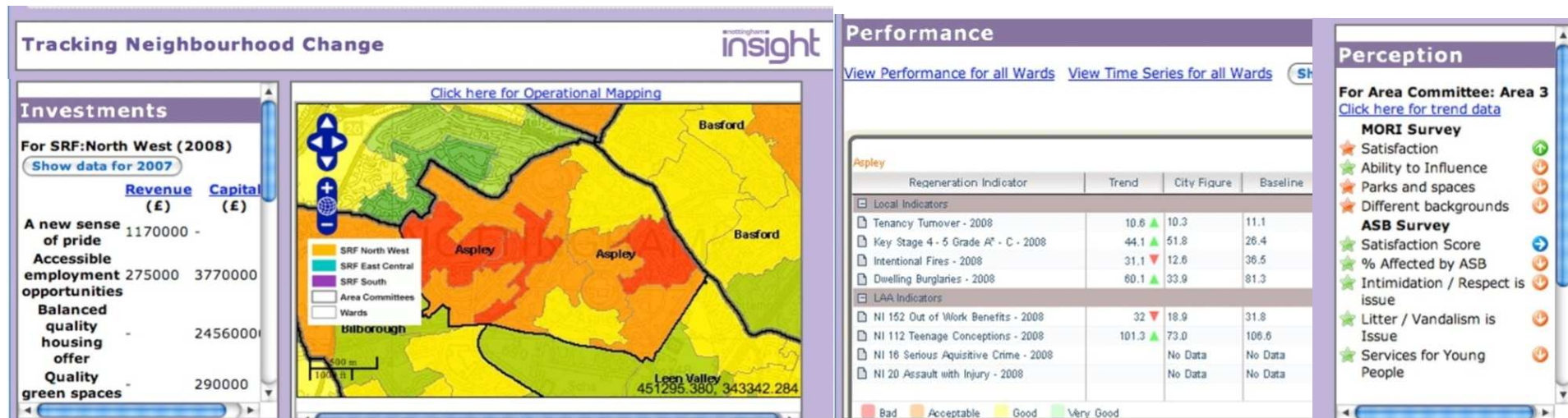
- Set-up of online fault reporting within East Sussex partnership with districts and police
- Use of interactive web mapping to identify fault location
- The information is automatically routed to one of the 8 partnership agencies responsible for the service
- The key benefits to the participating local service providers are:
 - More cost effective contact and feedback from citizen
 - Reduction in service costs, with 18,800 fault incidents logged over 5 years with an approximate net saving of £60,000
 - Cost of remedial action reduced by more accurate location
 - Savings on abandoned cars by removing vehicles before they are vandalised.



Case Study: Nottingham City Insight

Nottingham City Council, working with the local NHS, police, districts and the county council, created an online geo-enabled Local Information System:

- providing access to comprehensive, up-to-date information to neighbourhood level to staff both inside and outside the participating organisations and community groups to quickly find information they require
- Demonstrable savings from reductions in the time required to research and analyse evidence for decision making; saves up to £460,000 a year
- Leads to better quality decisions at a local level;
- Example: Customer profiling enabling additional benefit to be paid to most deprived families in Newark and Sherwood district;



Case Study: Newport City Council one address system

- Rationalising addresses held by the Council has benefits as each service area used to carry a different address for the location where a person lives
- Local Land and Property Gazetteer (LLPG) now the master source of address information in many departmental systems
- Use of the LLPG as the master address system reduces duplication and joins up services for the citizen
- Estimated cost savings of £57,000 per annum as the approximately 2300 address updates and changes are only carried out once instead of applying it to 17 separate systems
- Sharing of the National Land and Property Gazetteer (NLPG) created by local authorities as part of the street naming and numbering function leads to cost savings of £15 to £ 24 million in local authorities over 5 years

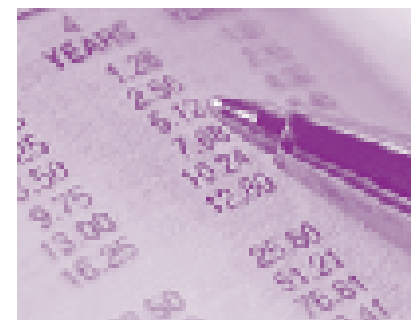


Benefits from case studies

- **Channel shift** – use of transactional web mapping systems reduces the need for face to face contact.
- **Improved transport efficiency** – by wide application of route optimisation and better streetworks management.
- **Better decision making** – using geospatially-enabled local information systems to gather intelligence about a place.
- **Reduced data duplication** – using master datasets such as the NLPG as a shared data source.
- **Empowering frontline workers** – by speeding up analysis and enhancing mobile working.
- **Helping identify social deprivation** – through data integration and analysis.
- **Broader citizen engagement** in local decision making and taking part in democracy at the local level through wider access and use of geospatial information.

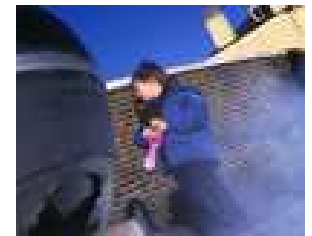
Economic impact of GI: Modelling outcome

- real output of local government increased by over **£230 million** in 2009 as a result of the accumulated productivity benefits of using geospatial applications
- the average annualised cost to benefit ratio of using geospatial information in local government is around **1:2.5 over 5 years.**
- Gross Domestic Products (GDP) for England and Wales was over **£320 million** higher in 2009 using GI
- projecting forward to 2015, GDP for England and Wales will be an estimated **£560 million** higher using GI
- Better policies and action to deliver the ideal scenario, could improve GDP by an estimated **£600m** by 2014-5
- government revenue from taxation was over **£44 million** higher and has the potential to increase to **£89 million** by 2015



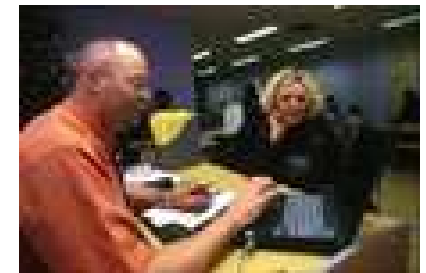
Other benefits

- **Reduced emissions intensity** of the economies of England and Wales by around 0.013 per cent in 2009 as a result of using GI (ie: reduction in car journeys)
- **better sustainable environmental management** and better planning of infrastructure projects through better, more accessible and interoperable data
- **improved health and wellbeing of citizens** through better targeted local public service delivery
- small **improvements in time** available for citizens for leisure and family activities due to improved access to data about services and routing information



Conclusions and recommendations

- The intelligent use of GI could lead to further savings of **£ 140 million** within 6 years. (accounts for 2 per cent of the efficiency savings local government needs to make this year and 12 per cent by 2014/15)
- The use of geospatial information has come a long way within local government since its early inception. We now have to demonstrate that GI forms part of a wider **information intelligence** which underpins **vital frontline service delivery**.
- Promoting better **top management and political understanding** of the case for the better use of GI and other information
- Good quality standardised data and its intelligent use does not happen on its own. It needs **skilled staff** to make best use of the data.

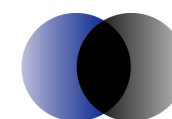


Next steps

- Information services provide a valuable resource to help deliver services where needed and to reduce cost in service delivery.
- to maximise the value of GI and to reap the benefits of the Location Infrastructure
 - Share data services,
 - Open up data and link with location based data,
 - Use data more intelligently
 - Free up restrictive licensing terms for derived data so that they can be more easily shared and reused.
- INSPIRE, the UK Location Infrastructure and the Public Sector Mapping Agreement have the potential to make better use of data and contribute to a further increase in the productivity for the public sector and the wider economy.

Further information:

- Report published on www.lga.gov.uk/GIresearch
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