# Proposed UK Geographic Information Strategy

## Local Government Association Policy Position

### Purpose

1. This document sets out the outcomes and actions that Local Government seeks from a UK Geographic Information Strategy. It has been informed by colleagues in Local Government ranging from those working in an operational capacity through to top management, and with colleagues in the Improvement and Development Agency.

### Summary of key requirements

2. A successful outcome for Local Government from a strategy should:

- Enable informed decision making and the better integration of services: for example in establishing and managing Local Area Agreements, or Local Service Agreements as planned for Wales.

- Improve the ability to exploit and reuse data and information from multiple sources by ensuring that such data is to a consistent standard to help council's better design and deliver a wide range of services and achieve cost savings by collecting data once and using widely.

- Aid innovation and adoption of best practice, and help build capacity to exploit the benefits of geographic information and the technology that underpins it.

- Secure necessary resources to implement the INSPIRE EU Directive.

- Commit to a single, affordable system for identifying property and addresses in the public interest.

- Set a course and plan for implementation that is affordable by Local Government.

- Set a course for a fair and rational approach to Intellectual Property Rights that enables licensing across public bodies that reflects the public interest.

- Establish effective and inclusive governance that engenders wide confidence, and that includes effective Local Government representation and engagement.

**Local Government**
Analysis and Research

## Background: the Local Government context

3. Local government delivers, procures and facilitates substantial and diverse services. Approximately 25% of total public expenditure in England (£100.5bn in 2006/07) is accounted for by Local Government. In addition, councils increasingly provide what the Local Government White Paper[1] describes as strategic leadership and place shaping: acting as catalyst and co-ordinator for a wider range of services and expenditure, for example through Local Area Agreements.[2] Councils are crucial in providing local democratic accountability for public services and activities at local level.

4. Local Government is therefore in the forefront of Government's agenda to improve the effectiveness and efficiency of public services. Councils are under acute pressure to meet expanding requirements from central government and increased customer expectations[3] whilst operating in a climate of intense budgetary constraint.

5. Improving the effectiveness and efficiency of public service delivery, client focus, and empowering citizens to act without state intervention are fundamental tenets of government's agenda. This requires local flexibility and understanding because different communities or groups in society have varying needs, and the circumstances and characteristic of particular places are different. To achieve this requires increasingly sophisticated local leadership to target and manage interventions and investment to:

- Understand, identify and respond to the differing nature and needs of localities and of the communities and groups within them: evidence consistently shows the importance of recognizing and working with the grain of local assets such as cultural, human, economic, natural, or other 'capital'

- Bring together and make sense of the complex array of public policy levers that operate within any particular area. The Every Child Matters,[4] social cohesion and economic development agendas are examples where success depends on 'horizontal' cross sectoral, cross organizational action to co-ordinate services that are often designed and accounted for individually with 'vertical' reporting lines back to central government. Local Area Agreements are a practical example of action to bring about this horizontal integration. Access to, and the sharing of, location specific data and analysis are crucial enablers to effective local delivery.

6. In responding to these needs and pressures, councils are seeking and developing ways to use information and data to inform effective service delivery, and to enable citizens to help themselves. However barriers exist, many of which revolve around:

- capacity to develop and use these enablers

- the ability to access or share necessary data, information and intelligence

- complex licensing arrangements across data holders.

## Local Government Association Policy

i. Local Government welcomes the principle of a Geographic Information Strategy. The Strategy should demonstrate that Geographic Information is as an important enabler to achieve effective and improved public policy formulation and delivery, and be a means to achieve necessary action and provide resources to make this a reality.

7.  Geographic Information is a powerful but underused tool to aid the formulation of effective strategy, the design and management effective service delivery, and in monitoring and evaluating performance.[5] Used in conjunction with local knowledge and good quality data, it is a key aid to understanding the geographies of place, community, economies and environments that are crucial if public policy interventions are to respond to the needs of citizens and the circumstances of their lives.[6]

8.  The focus should be on the public benefit rationale for developing the use of geographic information. However, a strategy will have significant implications for the private sector as innovator and provider. The industry needs to be engaged in Strategy development and implementation, and the Strategy should recognise and identify the following.

*   How the private sector can help effective delivery of public policy goals and how government at all levels will work with the industry.

*   Where geographic information generates business benefits for the private sector that have potential application and value for the public sector. Some uses have such commonality, for example both private and public sectors are interested in demographic change and use in property identification; and

*   The potential for geographic information policy and infra structure to support public/private/voluntary sector partnerships for service delivery.

9.  The Strategy should:

*   Be concise, non-technical and aimed primarily at Ministers, politicians, senior officers and policy makers nationally, regionally and locally.

*   Ensure that policy goals drive key decisions about technical developments: policy and key delivery bodies must own the Strategy. However, the Strategy must bridge divides between technical practitioner and policy/delivery drivers, and promote the development of information specialists as part of policy and implementation.

*   Present a clear and compelling case for the practical contribution that Geographic Information can make in transforming policy development and delivering citizen and business centred services: for example in demonstrating how the spatial dimension can improve customer experience.

*   State clearly and demonstrably the benefits both for citizen and for effective and efficient service delivery that will result.

*   State in non-technical terms what action is needed, why and to what effect.

*   In outline, provide a description of governance, implementation, timelines and costs: the Strategy should make clear how delivery is to be achieved and commit all key players to the necessary action and co-operation.

*   Commit to preparation of a detailed implementation plan.

*   Not commit irrevocably to any action that involves additional costs without a requirement that there be a detailed cost benefit analysis and that sufficient resource is available to deliver the change proposed.

10. The Strategy should therefore paint a vivid picture of how geographic information is a key way to provide and apply local area statistics and data:

*   as a diagnostic in delivering services, creating Local Area Agreements etc.

*   in applying the Local Government performance framework, and in auditing of service delivery, for example, by local strategic partnerships

ii.  A Geographic Information Strategy should include a focus on how geographic information can better empower the citizen to access services and to help individuals and communities better help themselves.[7]

11.  There are good exemplars where use of addresses/property locators as a spatial reference allows citizens to report abandoned vehicles, fly tipping, graffiti, uneven paving stones, suspicious activities etc via contact centres or websites.[8] Such services require accurate and consistent reference data. Where emergency services are involved, this requirement becomes acute. Also, analysis of service uptake offers valuable intelligence to inform targeting of often limited resources.

12.  Many local authority web sites include interactive GIS linked to services so that customers can find their nearest library, school, childminder etc, and a few provide linked services across local boundaries. However, customer oriented linkage between sources of public service information (including those of central government) remain the exception rather than the rule.[9]

iii.  A Geographic Information Strategy must recognise Local Government's role in the delivery of policy through services and the volume and range of customer 'contacts' made to and by Local Government.

13.  Local Government directly delivers or procures a diverse range of services. It is also the local integrator or key delivery partner for a much wider set of activities across the social, economic and environmental spectrum, engaging the public, private and voluntary sectors in the process. Few delivery agencies have local capacity to deliver, so local authorities are often crucial partners. Examples of where geographic information can help in such circumstances include:

- the Every Child Matters agenda where it is crucial to success that education, health and social services are co-ordinated and properly informed at the local delivery point by the best intelligence and data

- Health, Social Care and Well-being, which requires cross organisation responsibility for delivering services to treat and attack the fundamental causes of need

- planning and regeneration by underpinning local planning, monitoring and enforcement processes, and support strategic regional planning

- waste and environmental health by supporting the monitoring and improvement of waste collection services and street cleaning, and the monitoring and prevention of environmental health risks such as noise and contaminant pollution

- managing crime and disorder imperatives by monitoring crime and fear of crime, targeting crime prevention and solving crimes

- optimising the work of utilities through integrated use of geographic information so that utilities share geographic information on cables, water mains, gas mains and telecoms lines and map this onto highways data (now, planned road works can be synchronised, resulting in more efficient use of labour and resources and minimised disruption to the public)

- asset and management of greenspace, properties and streets

- route planning via integrated transport planners showing train, bus and other transport interchanges, and developing this for service specific requirements such as linking to tourist attractions and entertainment facilities.

iv.  The Strategy must enable action to deliver Geographic Information and supporting technology across sectors and organisations where there are public good justifica-

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tions, based on grounds of market failure, equity, or in the pursuit of public well being.[10]

14. The objective should be to realise the potential of geographic information to inform and support seamless and coherent service provision to customers, be this at national, regional or local level and in serving businesses, communities, sectors or individuals. This includes enabling the private, community and voluntary sector where they perform a role as public policy delivery vehicles.

15. The Geographic Information challenge for Local Government encompasses:

- the need to build leadership, capacity and the necessary networks of learning and knowledge exchange[11]

- achieving sufficient economies of scale to facilitate implementation of new technologies in sometimes small Local Government organisations

- engaging citizens and users in development rather than being driven by technology

- Integrating information and data use in service delivery and policy development processes.

v. The Strategy should have a key focus on enabling and sustaining necessary data sharing and reuse, shared services and innovation[12] to deliver public policy goals.

16. This is crucial and will be a litmus test of Strategy success. Failure to achieve this sharing and co-operation is a frequent cause of under performance in policy and delivery terms. The barriers and challenges to this are well documented.[13] Even without the impetus of a successful strategy, the expectation is of increased and more sophisticated use of geographical information and the technology that underpins it in Local Government. For example, the Society of Information and Technology Management identify 'increasing real time links to telemetry, satellite and meteorological data, mobile phone users and web cams'[14] as a key area for development.

vi. The Strategy should commit to the creation of definitive, core reference geographies to enable greater information interoperability. This should include a single system for addressing and property location.

vii. The Strategy should commit to robust and independent governance to oversee delivery and the necessary detail of establishing core national data sets and data standards.

17. The Strategy needs to establish cost effective independent governance that provides:

- Effective and transparent oversight and management of Strategy implementation that brings together all key policy and delivery players and engenders the necessary commitment (including resources), co-operation and ownership by the bodies concerned.

- A coordinating technical framework to govern adoption of agreed standards: governance needs to engender wide confidence and support as guardian of principles such as core reference systems and geographies, data standards, including in the technical community.

- Should provide oversight and leadership for the implementation of the recent EU INSPIRE Directive.

- Safeguards that ensure that public sector, public benefit activity is not compromised by licensing or other constraints, and that the cost of using and sharing data generated by the public sector data for such purposes is minimised.

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18. Any governance for geographical information must be complementary to measures proposed in the Queens Speech in 2006 and currently before Parliament in the Statistics and Registration Service Bill. The worst possible outcome would be dislocation and confusion between two bodies charged with guardianship of aspects of public sector data, not least given the fact that:

- the Office for National Statistics has made substantial investment in the presentation and accessibility of some key National Statistics data sets on a geographic basis[15] and also

- the Office for National Statistics is responsible for some key potential core reference geographies (including census output areas).

19. The Strategy should specify where progress has already been made towards achieving and operationalizing definitive, core reference geographies and where most effort is needed. For example, in some cases absolute or de facto standards already exist, in other cases, such as addressing and property location, further work is needed to ensure they are developed and applied.[16]

20. Governance should extend to a duty on the public sector to assist in the creation of core reference data and ensure that combining these core reference sets is not made impracticable by licensing restraints or costs: contributing to the creation of core reference data ought to generate appropriate benefit as such contributors are likely to be consumers of that same data.

viii. The Strategy must set out clearly how it relates both to other Geographic Information driven strategies and to related developments in the use of data and information. It is in the interest of public policy that the Strategy should commit to UK wide interoperability and standards but take a pragmatic view of how this is to be achieved to avoid unrealistic cost burdens.

21. UK Regional and EU Geographic Information strategies either exist or are in development, and there are significant wider developments in government policy towards data and data sharing and provision that are important to a UK Geographic Information strategy, including:

- The EU led INSPIRE where INSPIRE principles on data sharing are important but there are practical Local Government considerations about the potential cost that must be taken into account before implementation arrangements are agreed.

- Strategies for Scotland, Northern Ireland and Wales. We should learn from experience of the regional strategies but not be constrained by them. We need clearly articulated policies for the interface between UK regions. This is complex given the many agencies and sectors involved.

- Wider developments in the provision and sharing of data, including Cabinet Office leadership of Transformational Government[17] which sees GI as part of the technology architecture, and Treasury led work on the independence of national statistics.

ix. Strategy development and implementation need to be accompanied by effective and planned communications to ensure wide political, strategic and technical and industry support, or at least acknowledgement that the direction of travel is rational and beneficial.

## Costs/benefits

22. Local Government has, and continues to invest in geographic information based services. Overall a Strategy based on the principles and actions outlined in this document should lead to benefits for councils. Research work on the business case to underpin Strategy development indicates a crude ratio of £1 cost to £4 benefit from implementing these changes. We believe that this analysis is, in principle, valid for Local Government.

23. However, before irrevocable commitments are made, further work is needed to understand the likely costs of implementation, for example, in adopting the core reference geographies that we support in principle. One of the most significant cost implications could potentially arise from requirements for data harmonization: if data standards change, data may need to be reprocessed and Meta data collected. Implementation must proceed at a pace and extent that is affordable by Local Government, particularly given tighter future budgetary constraints.

24. Therefore, the scale and direction of what is possible must be dependent on securing resources, for example in the light of the statutory demands that implementation of the EU INSPIRE Directive will drive.

*Local Government Analysis and Research*
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*Local Government has, and continues to invest in geographic information based services*

## Notes

1. Strong and prosperous communities: The Local Government White Paper published in October 2006.

2. These cover a wide range of services, examples include Crime and Disorder Reduction Partnership, the children's trust and the health and well being partnership.

3. The term customer is a broad description for these purposes. It includes not only those who directly or indirectly pay, but also the regulated (e.g. to meet public health standards), those who need help or protection (e.g. vulnerable children and young people), or those encouraged to change behaviour in the public interest (e.g. in reducing waste at source).

4. An English policy initiative: there are parallel initiatives in Scotland, Northern Ireland and Wales.

5. For example, DCLG research led by Professor Paul Foley, De Montfort University, presented to the CLIP conference on 3rd October examined the extent to which local data and statistics are systematically used in Local Government to inform regeneration and neighbourhood renewal. By 2006, 69 local authorities operated such systems, not all of which include GI.

6. The Society of Information Technology Management (SOCTIM) report 'Planning for ICT: the technology architecture' published in 2004 identifies the 'use of GIS packages based on OS and NPLG, linked to operational services such as planning and development control, land charges, national land information service, highways and all addressed based systems such as Council Tax, rents, benefits, electoral register, refuse collection, non-domestic rating and environmental health inspections' as beneficial both in 'improving customer satisfaction and in improving efficiency through greater accuracy in referencing systems'.

7. Ref also 'Rewiring Democracy: Better e-government for the UK' Adam Smith Institute 2006. This reviews how to improve delivery of e-services and how government can enable citizens and businesses to take part in government.

8. The East Sussex County Council Access East Sussex Common Access Fault reporting system initiative is an example, winning an AGI award.

9. Ref published AGI response to Cabinet Office Consultation on Transformational Government.

10. Section 2 of the Local Government Act 2000 empowers government to undertake actions for public wellbeing.

11. Ref research commissioned by the Department for Communities and Local Government and conducted by Professor Paul Foley, Demontfort University which concluded that by 2006, 69 local authorities had systems in place to use data and local area statistics to inform and drive regeneration and neighbourhood renewal activity.

12. For example, The Society of Information Technology Management (SOCITM) report 'Planning for ICT: the technology architecture' published in 2004 identifies that 'capturing the location of mobile phone users automatically and using this information for real time GIS supported services', 'increased use of three-dimensional models for use with flood control and other applications' and 'visualisation of existing and proposed townscapes' are examples of likely trends in developing land and property services.

13. For example, in the published Association of Geographic Information response to the Cabinet Office Consultation on Transformational Government.

14. See 12 re 'Planning for ICT: the technology architecture' published in 2004

15. Neighbourhood Statistics are publicly available on an ONS website at various geographies.

16. For example, BS7666 includes implicit standards in parts 1 & 2, and explicit standards in part 5 for delivery addresses.

17. An English policy initiative. There are parallel initiatives in Scotland, Northern Ireland and Wales (in the latter, it is 'Making the Connections').