

Policy Briefing

Harnessing geospatial information – the local dimension

November 2018

Table of contents

Introduction	03
Purpose and audience for this policy briefing	03
Policy recommendations	04
Background	05
Socitm's response	05
Conclusion	10

Introduction

Geospatial information – new location data sources, analytics and intelligence – is a critical resource in enabling digital transformation in local government and public services. Use of spatially referenced data is key to evidence-based decision making, modernising operational practice and improving the experience for service users across the full range of local authority activities. Geographically referenced data also adds a new dimension to predictive analysis i.e. using data to predict future behaviour.

This is not about re-packaging Geographical Information Systems (GIS). Harnessing geospatial information and location intelligence have their roots in big data management, advances in technologies for capturing, presenting and disseminating data, and application of algorithms originally developed for defence and marketing to key challenges facing local public services.

Purpose and audience for this policy briefing

Socitm produces policy briefings to represent the interests of those working in digital and IT roles in local public services. This policy briefing will be of interest to senior policy-makers, decision-makers and managers involved in the creation, design, commissioning and delivery of a wide range of public services, including social care, inward investment and emergency services.





Our Policy

recommendations

1. Recognise the importance and value of collaborative working with geospatial data locally to enhance economic, environmental and social prosperity.
2. Promote open data and open standards for data acquisition, publication and sharing.
3. Make Ordnance Survey MasterMap data freely available to local authorities.
4. Support and facilitate wider acceptance and use of location-based identifiers such as Unique Property Reference Numbers (UPRNs) and Unique Street Reference Numbers (USRNs) within non-spatial applications.
5. Tighten procurement regulations and vendor engagement at national level to require full support of open standards for geospatial data and interoperability in the technology used by local authorities and review data management and security guidance with regard to de-classifying addresses as personal data.
6. Sponsor preparation of specific high value propositions for geospatial-centric applications, supported by template business cases.
7. Build capacity, capability and skills – data aggregation, standardisation, handling and sharing, data science, analytics, consumption – wherever possible harnessing established centres of expertise.
8. Build on some of the excellent examples from overseas, particularly those that exemplify collaboration at the local level.
9. Invest in existing knowledge sharing networks and platforms available through professional bodies like Socitm and others that span local public services.
10. Provide hypothecated investment funding, stimulating and building engagement to enable adoption and adaptation of best practices at the local level.

**“location data is key
to the creation, design,
commissioning and
delivery of better
public services”**

Martin Ferguson, director of policy
and research, Socitm

Background

Announced in November 2017, the Geospatial Commission aims to maximise the value of data linked to location to transform services across the private and public sectors and contribute to its #SmarterGov government campaign, which helps deliver wider economic growth and productivity.

From emergency services, transport planning, housing, to smarter cities, 5G networks and deployment of artificial intelligence and machine learning – the government believes that UK's geospatial infrastructure has the potential to revolutionise the UK's economy.

Now, the government has urged the UK's geospatial sector and beyond to take part and share views on their future vision. In July 2018, the government launched a call for evidence focused on innovation, enhancing geospatial assets and driving investment.

Find out more about the government launch call for evidence to be a geospatial world leader:
<http://bit.ly/2OTJTxd>

This policy briefing sets out Socitm's response, submitted to the Commission on 22 October 2018. Our response focuses on those questions selected by us as most relevant to the local government sector.

Socitm's response

How can we best ensure effective local authority coordination and sharing of best practice, using location data to better deliver public services?

Socitm feels that the question is phrased too narrowly. The opportunity is not just coordination and sharing of best practice in harnessing location data between local authorities. It is also doing so across the wider landscape of places, by involving the many different organisations that contribute to achieving better outcomes for residents, communities, employees and businesses in those places, while protecting and enhancing their environments.

Further, harnessing location data across places extends to spatial analysis, exposing patterns and predicting behaviours that cannot be identified unless this extra dimension is available.

There are many opportunities within the sector that should be addressed, and that Socitm would be keen to work with the Geospatial Commission to develop. Key amongst these are:

- Promote open data (including further opening up OS mapping and address data as a public good) and open standards for data acquisition, publication and sharing.
- Support and facilitate wider acceptance and use of location-based identifiers such as Unique Property Reference Numbers (UPRNs) and Unique Street Reference Numbers (USRNs) within non-spatial applications. This is particularly problematic in respect to sharing data across social care, emergency and health services as certain organisations incorrectly regard street and property data as personal information.
- Sponsor preparation of specific high value propositions for geospatial-centric applications, supported by template business cases. Currently, the opportunity is being missed to increase the pace of adoption and realise the benefits this would unlock.

07 use cases for geospatial information

01

Distributing access to technology (e.g. high speed broadband) and its benefits. One strong use case is increasing the use of public street light networks to provide wider low cost access to optical fibre based networks and increased availability of public wifi in city centres.

02

Regenerating of economically disadvantaged areas – spatially enabling inward investment marketing materials and use of 3D models to allow initial evaluation of candidate sites from the developer's desktop.

03

Understanding patterns of democratic engagement/disengagement – most local authorities hold very detailed demographic data but it is rarely combined with spatial data which could reveal the detail of such patterns.

04

Uncovering poor housing conditions and illegal multiple occupation – highlighting existing best practice using thermal imagery and the role that high resolution 3D city models can play.

05

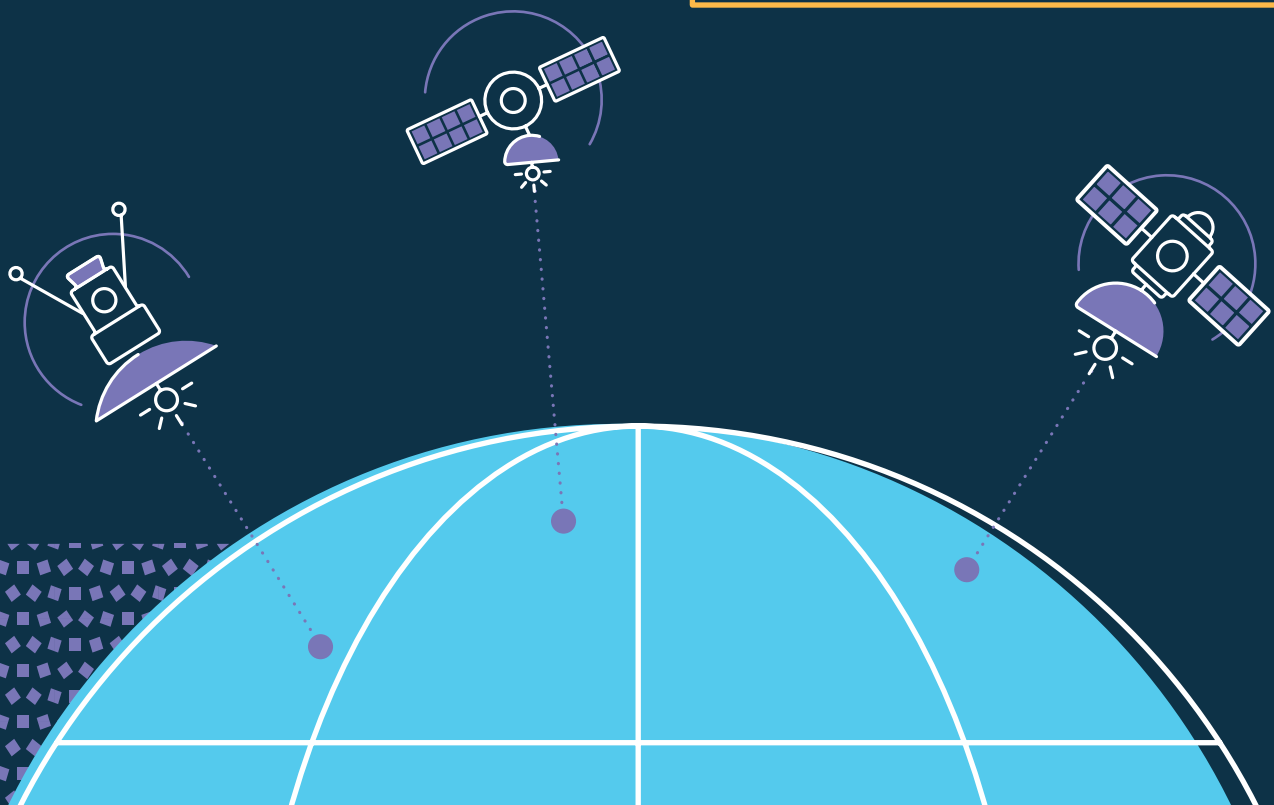
Building social cohesion and overcoming loneliness – using disaggregated social care data to identify deprived communities at a much more granular level than is possible with census data.

06

Managing the environment – clearly articulating how geospatial supports more effective disaster risk management, air and noise pollution monitoring and climate change mitigation.

07

Supporting development of micro energy generation/grids to identify the best opportunities to increase local adoption of generation from renewable energy sources.



- Build capacity, capability and skills – data aggregation, standardisation, handling and sharing, data science, analytics, consumption – harnessing established centres of expertise e.g. Data Mill North, Worcester Office of Data Analytics, etc.
- Invest in existing knowledge sharing networks and platforms – Socitm with its established regional groups, other professional bodies (Solace, CIPFA, RTPI, etc.), Local Government Association, Welsh Local Government Association, Scottish Local Government Improvement Service (Spatial Hub), Scottish Local Government Digital Office, GeoPlace, Knowledge Hub.
- Provide hypothecated investment funding, stimulating and building the engagement required to enable adoption and adaptation of best practices at the local level. (There have been some successful examples e.g. The Connect Digitally programme – online school admissions and online free school meals that invested in a team of professionals to work with those responsible across England to embed the process and associated technology in their local authorities.)

What are the geospatial skills needs and gaps in your organisations, how can these be most effectively addressed, and how can careers in the sector be best promoted?

Availability and sharing of relevant staff skills and knowledge is a significant factor in maximising the benefits of geospatial data for local authorities and their partners. Technical skills in specialist applications can be expensive to acquire through formal training.

Firstly, more emphasis could be given to informal sharing of knowledge and best practice through online user communities such as those that exist in the public service Knowledge Hub. Targeted demonstrations and case studies relevant to specific business areas can increase awareness and encourage authorities to improve skills, leading to better utilisation of data through existing or new solutions.

Secondly, development of regional/sub-regional shared centres of excellence (e.g. the [Scottish Spatial Hub](#)) offers a way to attract and maintain skills, alongside

improved partnership working arrangements with universities, the private sector and others.

Are there any publicly or privately-held geospatial datasets that are currently challenging to access or use or of insufficient quality, but which you or your organisation would find valuable if these issues could be resolved? Please explain why this would be of value, and how access/quality could be improved?

The quality of spatial data captured and maintained by local authorities depends on the availability of high quality and up-to-date topographic mapping as supplied by the Ordnance Survey MasterMap products. Currently the cost to Scottish councils of accessing and using such data, through membership of the One Scotland Mapping Agreement (OSMA), can be in excess of £100k per annum for each council. This annual cost is becoming an increasing financial burden that can be difficult to justify in an era of freely available online maps. MasterMap data is becoming freely available to certain groups and would therefore expect a reduction in the level of charge to the public sector customers.

What role should the private sector have in both the development and maintenance of the underpinning infrastructure and enhancing the UK's geospatial data assets?

Data standardisation and sharing within and between organisations can often depend on the technical architecture and capabilities of business-specific IT solutions, and therefore the providers of such systems ought to be required to fully support open standards for both data and interoperability.

Do you face challenges when working with geospatial data from across the public sector? If so, what are they and how could value be better released? Are there any technical remedies or standards that could be adopted to improve the interoperability of geospatial data? Please provide supporting evidence of what these remedies could help to accomplish.

Wider acceptance and use of location-based identifiers such as Unique Property Reference Numbers (UPRNs) and Unique Street Reference Numbers (USRNs) within

non-spatial applications would enable data held in such applications to be “spatially enabled” and thereby opened up to new ways of analysis and presentation.

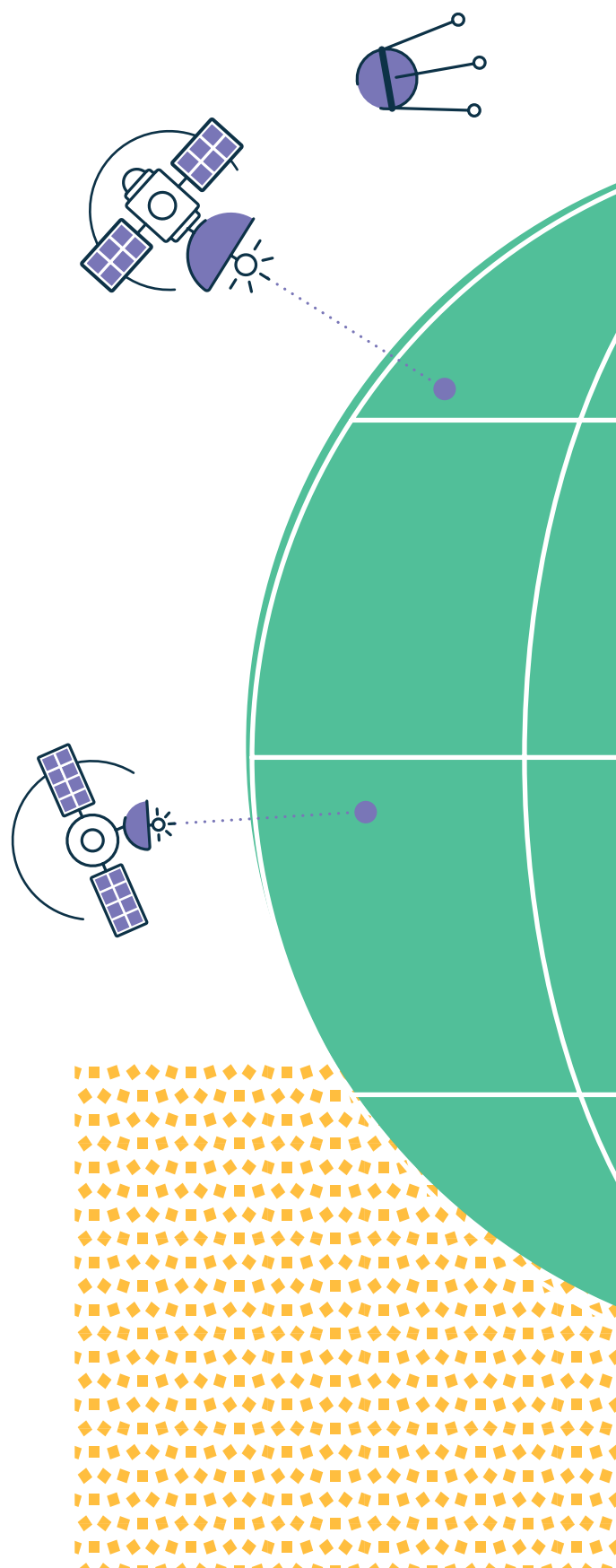
Tighter procurement regulations and greater vendor engagement at national level could help improve the technology used by authorities. Increased availability of standardised, open geospatial data can also help drive innovative uses of such data, for example in the availability of mobile apps.

Where should the UK be looking for points of comparison overseas? Who are the other international exemplars? What best practice is being modelled overseas that we can learn from?

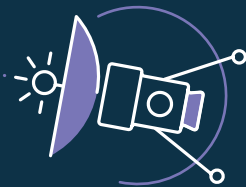
Numerous examples of local authorities leading the way exist in parts of Australia, New Zealand and Canada, with applications including forest fire prevention and response, and flood mapping and prevention, and in cities such as [Barcelona](#) – possibly the most advanced digital city in Europe – and [Helsinki](#). Some examples, focusing on the application of drone technology, can be found here: www.lgam.info/drone

Perhaps the most comprehensive example is the work of the [Tasmanian Spatial Information Council](#), whose primary purpose is to “facilitate full access to, and application of, spatial information to underpin Tasmania’s economic, environmental and social prosperity”.

In terms of promoting data standardisation and sharing, a working example of best practice is the Scottish Local Government Improvement Service’s Spatial Hub web portal for the upload, download and consumption of Scottish geospatial data. Individual councils and national park authorities upload various spatial datasets to the Spatial Hub, which are then standardised, merged together and published to create national datasets. This can save local authorities a great deal of time, money and effort in developing their own portals to publish data for their EU INSPIRE directive obligations. Additionally, it provides full and up-to-date national datasets for various public bodies in Scotland, as well as potentially diverting FOI requests away from local authorities.



**"We should all
be harnessing
location data"**



Conclusion

Effective local authority coordination and sharing of best practice in using location data is key to the creation, design, commissioning and delivery of better public services. The opportunity is not just coordination and sharing of best practice in harnessing location data between local authorities. It is also doing so across the wider landscape of places, by involving the many different organisations that contribute to achieving better outcomes for residents, communities, employees and businesses in those places, while protecting and enhancing their environments. Harnessing location data across places extends to spatial analysis, exposing patterns and predicting behaviours that cannot be identified unless this extra dimension is available.



Acknowledgements

This briefing has developed over time from invaluable advice, insightful discussions and feedback from several contributors. Particular thanks go to colleagues at Aberdeenshire Council.

Have your say

We welcome comments and discussion on the ideas presented in this Policy Briefing.

Martin Ferguson

Director of Policy & Research, Socitm
martin.ferguson@socitm.net

Socitm Member group

www.khub.net/socitm



hello@socitm.net | 01604 709456