

**UK Location Council
Response to
Consultations on
Data Policy for a
Public Data Corporation
and
Making Open Data Real**

Version 1.0
October 2011



Document Control

Change Summary

Version	Date	Author / Editor	Change Summary
1.0	27/10/2011	John Dixon / Ray Boguslawski	Final version of document for submission and publication

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This is a response to the Consultations on the Policy for a Public Data Corporation and on Open Data from the UK Location Council, which is chaired by Defra. It has been agreed by Council members and signed off by the responsible Defra Minister, Lord Taylor of Holbeach.

The majority of UK Location Council member organisations have been involved in the preparation of this document and have agreed the content. However, some Council member organisations are unable to give their formal agreement to the final document because of their proximity to the centre of the discussions on the PDC and Open Data. In addition, the Devolved Administrations, while recognising the need for consistency in policy across the UK, reserve the right to make their own arrangements.

A list of UK Location Council member organisations is set out in the Annex to this document.

Introduction

This response to the Government Consultations on the Public Data Corporation (PDC) and Open Data comes from the UK Location Council. The Council was established to act as the strategic adviser to government on location data matters and to steer the UK Location Programme (UKLP), which was set up to implement the UK Location Strategy¹ and the EU INSPIRE Directive².

The Location Strategy was launched in November 2008. A programme of five strategic actions was established to ensure that the UK exploits the full value of its location information. These are as follows:

To ensure that within the United Kingdom:

- We know what data we have, and avoid duplicating it;
- We use common reference data so we know we are talking about the same places;
- We can share location-related information easily through a common infrastructure of standards, technology and business relationships;
- We have the appropriate skills, both among geographic professionals and among other professional groups who use location information or support its use;
- We have strong leadership and governance to drive through change including the implementation of this Strategy and the implementation of INSPIRE.

From the above, it can be seen that the Location Strategy and the work of the Council are very strongly linked to the matters being considered in these Consultations. The Location Council's role means that this response is necessarily limited mainly to matters of location based data, though some wider concerns are addressed.

The Council considered it appropriate in its response to focus mainly on strategic and high level issues suitable to its role and composition. Membership of the Location Council is diverse and many Council member organisations will individually respond in detail to the Consultations with views on particular issues of relevance to them.

While following the themes of the Consultations, the Council's response does not set out formal answers to the specific questions raised. Instead, it discusses issues for the debate on the PDC and Open Data which are relevant to the UK Location Strategy and INSPIRE. Where possible these have been grouped under the section headings of the Consultations. The response also aims to frame comments and recommendations to highlight benefits for the PDC and Open Data.

The UK Location Strategy is UK-wide, and therefore includes the Devolved Administrations. No indication is given in the Consultation on Open Data of how the

¹ <http://location.defra.gov.uk/wp-uk-location-strategy/uploads/2009/12/uk-location-strategy.pdf>

² EC Directive 2007/2 and Implementing Rules, available at: <http://inspire.jrc.ec.europa.eu/index.cfm/pageid/3>

proposals would impact the Devolved Administrations. In the Consultation on the PDC, it is noted that the expectation is that the creation of a PDC will only apply to reserved matters within the UK. The Devolved Administrations of Wales, Scotland and Northern Ireland recognise the need for consistency in policy across the UK, while reserving the right to make their own arrangements.

This response from the UK Location Council addresses both Consultations in one document, as many of the themes and issues are interlinked and strategically are better considered together.

The key message the UK Location Council wishes to make in response to the Consultations is that the policies for PDC and Open Data should be closely aligned and designed to ensure that there is no conflict between them.

UK Location Programme: ahead of the game

It should be recognised that the UKLP is already implementing a legal and policy framework which potentially impacts on the operation of a PDC, depending on how it might be constituted, and is strongly aligned with the ambition for Transparency and Open Data. The UK Location Strategy is currently being refreshed but has, since its original launch (in November 2008), set a path for the release of publicly held location data. The UK INSPIRE Regulations³⁴ of 2009, which implemented the 2007 EU INSPIRE Directive, provides a model statutory framework which will have to be incorporated into appropriate aspects of the function of a PDC.

UKLP works under the strategic direction of the Location Council and has valuable experience and knowledge highly relevant to establishing the PDC. It would be highly advantageous if it were to be invited to become involved in helping to set up aspects of the PDC. UKLP is also working very closely with the Cabinet Office Transparency Team to integrate and location based data and allied services within data.gov.uk and is making a visibly strong contribution in terms of quantity and quality of UK-wide location data from hundreds of organisations. UKLP requirements and opportunities should be taken into account as the Open Data strategy, the PDC and the data.gov.uk services evolve.

³ SI 3157/2009 <http://www.legislation.gov.uk/uksi/2009/3157/contents/made>

⁴ SSI 440/2009 <http://www.legislation.gov.uk/ssi/2009/440/contents/made>

Summary

3. A summary of the Location Council response is set out below.

Public Data Corporation

1. The PDC will require strong leadership to bring the business models and organisations that provide data together under an agreed set of policy terms and conditions.
2. Creation of the PDC presents an opportunity for defining which data sets should be deemed as core reference data sets.
3. It is important to recognise that the practice and policy of a PDC should be subject to statutory provisions under the INSPIRE Regulations.
4. There are other types of organisation beyond those referenced in the Consultation Document which create and use public sector information and need to be considered in scope.
5. The UK Location Strategy and INSPIRE should be used as a model of good practice. It is important that the INSPIRE Regulations are understood and used to establish any wider policies and framework for publishing of data of all types. The INSPIRE infrastructure and lessons learned in establishing it can act as a model for the future. The UK Location Strategy provides an approach for maximising value of important data sets.
6. In defining policy on access and release of data, many factors are important, including licensing and charging, user authentication and access control, technical standards, data quality and interoperability, sustainability and affordability, and usability of the data service. Interoperability needs to be given greater prominence, to enable data sets to be brought together from multiple sources.
7. PDC should give consideration to funding providers to enable them to make data sets available without charge which will meet a large extent of user requirements. A charging regime could then sit separately for enhanced and more detailed data sets. The PSMA is a basis for this type of arrangement.
8. It is essential that recognition is given to the importance of ensuring that provision is made for the continued availability, currency and quality of data.
9. To facilitate uptake of data and help promote innovation and growth, steps should be taken to ensure that licensing is as simple and straightforward as possible. In particular licensing must not act as a deterrent or barrier to use of data sets, whether by commercial or non-commercial organisations. One possible approach to stimulate innovation would be the introduction of a developer licence.
10. In addition, consideration should be given to policies that will remove barriers for non-commercial use or re-use such as:
 - a. establishing a position that all data created by public authorities in discharging their public task should, where possible, be made available without charge for non-commercial use;
 - b. ensuring that data consumer organisations operating non-commercially are not penalised or put at a disadvantage in re-using data which is subject to

charges – an example might be a charitable organisation that is operating non-commercially and whose activities are fulfilling wider policy aims; and

- c. streamlining the process in relation to third party intellectual property to remove barriers to making data easily available.
11. The organisations within the PDC must have a clear definition of their public task which should be consistent with policies being adopted.
12. The UK Location Programme promotes and endorses the UK Government Licensing Framework (UKGLF) as the licensing framework for the use of spatial datasets covered by the INSPIRE Regulations.
13. Licences should be made available in electronic, machine readable form that can be referenced in computer applications.
14. Licensing of frequency of use and type of use, rather than simply access to the dataset, is a key principle.
15. Establishing the PDC presents an opportunity to simplify the data policy and governance landscape, enabling greater clarity for publishers and consumers and reducing burdens for both.
16. There would be benefit in setting a policy which requires ICT projects to define at early stages which of an agreed set of open standards they will apply. Part of the set of open standards should include those based on INSPIRE.

Open Data

1. Points made on licensing under the PDC section are relevant to the discussion on Open Data and should be given prominence in the debate.
2. The Open Data arena is an opportunity for Location Council member organisations to show leadership and to build on our experience in the practical operation of Open Data services to citizens, government and commerce.
3. Providing quality of data and services is essential to support both planned and unplanned innovation. Government should consider how best to use these valuable resources but should also make them available publicly to enable wider innovation in the market.
4. A tighter definition of what data is in scope of Open Data is required.
5. For any regulation associated with Open Data, a classified list of organisations in scope would be better than only having a list of types of organisations in scope, although this is needed as well. There would be benefits in applying such an approach consistently across as many government policy areas as possible.
6. The five star rating is too heavily slanted to accessibility which is only a subset of the different elements defining quality of service in data provision. If such a rating is to be promoted, consideration should be given to extending it to include a wider range of factors, for example business and technical interoperability, data quality, usability and support.
7. It is important that consideration is given to the potential damage that the publication of low quality data may have on citizens, businesses or national security and emergencies. Care needs to be taken in particular with data that is

used to determine risk or to detect threats. We suggest providing a health warning about the quality of the data.

8. The UK Location Council endorses the Sector Transparency Board approach. It would welcome serving as a crosscutting Transparency Sector Board for location data. This would be a logical extension of the work it is doing already to promote and co-ordinate location data publication and accessibility.
9. Linked Data concepts represent best practice in the publication and use of location information and fit naturally with the INSPIRE publication approach. However, it should be recognized that this is a developing area and that, in particular, smaller organisations may find it difficult to resource the necessary changes for Linked Data. Any policy setting the long term direction of Open Data which supports the shift to Linked Data should give encouragement for organisations to plan the skills, development and data infrastructure needed to create the critical mass which will enable the anticipated benefits. There are also some central enablers that will be needed, such as core reference geographies and code lists.
10. Any policy, guidance or examples of best practice that emerge from the Consultation Document should be consistent with the statutory requirements as set out in INSPIRE legislation.

Public Data Corporation

Open Data and the Public Data Corporation

The Location Council supports the move to Open Data and the economic, social and operational benefits that flow from moving to an Open Data model and the creation of a Public Data Corporation. It is crucial to recognise that there are clear close associations between the PDC and Open Data agenda which need to be balanced. The PDC could act as a custodian of many Open Data products alongside a custodianship of common best practice.

The Council also supports the need to encourage more public bodies to publish data by default, rather than as publishing because of a statutory obligation.

However the Location Council also recognises that the creation, management and dissemination of data requires adequate and sustainable funding and strongly supports the need to ensure that data producers are resourced appropriately and sustainably. High quality, current and sustainable data sets are vital for a successful economy and for decision making both within and beyond the public sector.

Leadership

The PDC will require strong leadership in order to promote data use across government and develop a clear and structured approach to the development, management and regulation of data policy and its application across government.

Public Sector Information

In the Section 'Public Sector Information' two general types of organisations are described:

1. those that create data as a by product of other public tasks;
2. those that create data as their core business and value add.

There are two other key types of organisation which should be considered:

3. those that use a significant amount of other public sector organisations' data (within public sector consumers);
4. those where data and data collection are core to what they do but trading in data is not their core business, for example local authorities and the Environment Agency (a variant of 1).

There may be organisations which fit into more than one of these types. All of these organisations' requirements need to be taken into account.

PDC Objectives

The objectives could be expanded to include the provision of common and shared national infrastructure to enable wider data sharing such as authentication methods where data usage needs to flow through some level of access control. The UK Location Programme is developing an approach for user authentication to assist with evaluation of

location data sets which is the type of approach that may be considered. Another role of the PDC could be to facilitate interoperability for the datasets produced so that they can be more easily shared and reused across wider business applications.

Core Reference Data

As described in the Consultation Document, core-reference data is a critical asset to the public sector and as a wider public infrastructure. However, this core reference data is held and maintained not only by the organisations described at 2, above, under Public Sector Information. Example data could include postal addresses, environmental, transport, statistical geographies.

The UK Location Council recommends, in line with one of the stated aims of the Location Strategy, that the creation of the PDC presents an opportunity for defining which data sets should be deemed as core reference. Establishing which data sets are core reference datasets will prevent the expense of duplicate data collection – provided that their re-use is promoted.

Some core reference data, such as reference geographies provided by bodies either from among the current PDC candidate members or outside, would be seen as critical underpinning to public services if not actually being classed as public services in their own right. In addition, there may be other critical enablers that should also be maintained or provided by the PDC in its custodianship and centre of excellence role, e.g. interoperability, standardisation, efficiencies and common practices. This will help to join together key core reference datasets currently created by a range of public sector organisations but where value is diminished due to their fragmented nature.

Existing policy and regulatory framework

INSPIRE Regulations: Service Specification

In addition to the presently identified likely candidate members, there are other organisations for which a case could be made that they could be part of a PDC or affiliated to the PDC. Many of these are involved in the production of **spatial data**, which will be required to be published under the practical and policy provisions set out under the INSPIRE Regulations. A significant focus of the INSPIRE Regulations is the use of data to meet a public task, and that the use of such data for such purposes must not be confused with the use and re-use of data for commercial and non public task activities. It is important that the INSPIRE Regulations are understood and used to establish any wider policies and framework for publishing of all types of data. Further, the UK Location Strategy and INSPIRE form a resource which could be used beneficially as a model of good practice for other types and forms of data.

A brief summary is included in the table on the next page of the five Network Services required under the INSPIRE Regulations, to be established and operated by public authorities and third parties which publish INSPIRE datasets. These services must be available to all. In addition, public authorities are required to take specific action to enable **data and service sharing** between public authorities, and with bodies of the EU.

INSPIRE Network Services

- Discovery Services – enabling users to search and display the contents of metadata for spatial datasets and services under one or a combination of the following criteria: keywords; classification, quality and validity; geographic location; access or use conditions; and identification of who is responsible for creating, managing, maintaining and distributing them.
- View Services – enabling users as a minimum to display, navigate, zoom in and out, pan or overlay viewable spatial datasets and to display legend information and any relevant content of metadata. It is important to note that data publishers are required to produce a service which, when it receives a valid request, will respond by sending a map image to a user View Client. The View Service functionality rests entirely with the View Client that the user is using. The View Client is not, however, defined as part of INSPIRE.
- Download Services – enabling users to download copies of whole datasets or parts of datasets, and where practicable, accessed directly.
- Transform Services – enabling users to transform INSPIRE compliant spatial datasets to achieve interoperability.
- Invoke Services - the term 'invoke services' has not so far been defined but will be through the development of the appropriate implementing rule by the Commission.

Managing Public Money

Concerns raised in the Consultation Document under Managing Public Money increase the need for both a common approach to charging and also in providing authentication of access to mean that the charging mechanism is not the barrier to use. (This is a requirement of the INSPIRE Regulations, set out in the table below.)

A consistent and transparent approach to charging is required which addresses both trading funds and other public sector organisations and reflects the nature of their public task. It should be one which could be used more widely than the PDC, should be developed to enable organisations and users to authenticate easily and to take data feeds in a common way. This single approach would reduce both users' costs and also those of the wider public sector.

Public Data and approach to access and release**Data discovery**

UK Location uses the GEMINI2⁵ standard for discovery metadata. With its technical partners, Ordnance Survey and the Cabinet Office, the UK Location Programme has developed a metadata editor based on open source software, an automated mechanism for harvesting and validating metadata, and a mechanism for making metadata accessible in external applications (the Commission accesses UK metadata through this mechanism). These are valuable resources that could be promoted more widely, and should be seen as a model of best practice.

⁵ The GEMINI standard has been developed and is owned by the Association for Geographic Information (AGI). The GEMINI standard is provided for use free of charge for the benefit of the nation and to maximise the use of geographic data.

Release mechanisms

In line with policies and practices developed for UK Location, it is recommended that data publishers should be encouraged to apply best practices in the form of web based feeds with Application Programming Interfaces (APIs) that allow for both filtering and download.

Reduced burden of access is important but also provision of an innovation platform is vital. This is an area in which the UK Location Infrastructure can play a vital role as a model of best practice.

In defining policy on access and release of data, many factors are important, including funding, licensing and charging, user authentication and access control, technical standards, data quality and interoperability, sustainability and affordability, and usability of the data service. Interoperability needs to be given greater prominence, to enable data sets to be brought together from multiple sources.

The Location Council recognises that data of high quality is required. It should be captured once for use many times but also needs to be maintained and regularly updated to the same level of quality over time. Design of an affordable, sustainable approach is needed when a data set is created. It must be understood when developing policy that data sets will still be relevant in 5 and 50 years time – and even beyond that.

When publishing data sets, consideration should be given to the lifecycle of the data. Data publishers need to be able to listen to users and take steps to improve data in the light of feedback. Data publishers should also recognise the need to provide support and aftercare to data users. However, they will need sustainable resource and funding streams to enable them to do this consistently.

Format of data

Interoperability should be the prime principle when data formats are being considered. The format of INSPIRE data sets are defined by EU data specifications set out in Implementing Regulations. This gives an agreed and meaningful standard for content, which also enables data to be combined from different sources. Geography itself is, indeed, a ready basis for interoperability, through linking of different objects, events and features by location (“everything happens somewhere”).

Charging for Public Data Corporation information

No debate about data policy or Open Data can be sensibly held without explicitly recognising that each data set, whether good, bad or indifferent in terms of quality and usability, requires some form of investment of time, expertise and resources in its creation, management and dissemination.

In many cases the true value of data lies in a combination of the inherent quality of the data set and in its currency and physical accessibility. These aspects, and particularly the effort involved in ongoing maintenance of a data set, require secure and adequate funding.

For a data set to retain its value, sustainability of its content, currency and availability are crucial. In addition funding must also be available to support and where appropriate invest in developing the technical infrastructure which sits behind the collection, management and dissemination of data. This includes, where appropriate, resources to

enable the development and enhancement of data set content to meet the changing needs and expectations of users.

It follows therefore that adequate and sustainable funding streams must be identified and secured as part of any debate on public data policy and particularly with regard to proposals related to Open Data.

Funding for the creation, management and dissemination of public sector data may come from one of a number of sources:

- Grant in aid funding from Government;
- Fees and charges for services and data related activities;
- Commercial contracts with sponsors for the provision of Open Data;
- Charges for collective purchasing arrangements involving one or more central or dispersed funders representing users within a defined community;
- Commercial charges and royalties for licensed access and use of data;
- Commercial charges for value added content or services related to the data.

Current models which involve a mix of Government funded Open Data and user-funded Premium data (referred to as the Freemium model) appear to provide a reasonably balanced funding regime for data providers, particularly when allied with funded collective purchasing agreements like the Public Sector Mapping Agreement (PSMA) for spatial data.

Similarly if a PDC were to take on the wider best practice and national infrastructure roles suggested above, then these too would need to be maintained and provided sustainably and would therefore also need adequate funding streams to support them.

Policy on funding the supply of data through charges requires clarity on when data is free of charge, when can there be a charge, what type of charge is permitted, and whether actual costs should be charged or a reasonable return on investment may be made. In this respect, trading funds supplying data are able to charge on a full cost basis. Other organisations should not be overly limited in their ability to charge to the extent that the quality of data or their ability to perform their public task is prejudiced.

In the case of spatial data, the default for INSPIRE data sets is that they should not be subject to charges. However, the INSPIRE Regulations do allow for charges to be made in certain circumstances but they also place conditions on the level of charging. PDC should give consideration to funding providers to enable them to make data sets available without charge which will meet a large extent of user requirements. A charging regime could then sit separately for enhanced and more detailed data sets. The PSMA is a basis for this type of arrangement.

Any charging regime must be consistent, transparent and with a minimal administrative burden for both parties. The UK Location Programme is looking at methods of business interoperability which will support this approach and will publish and share its findings.

For example, it would be beneficial to have one common user authentication method across the public sector to reduce access burden and allow innovation to be built easily with the caveat of some licensing being possible.

A key point in relation to charging is that maintenance of datasets needs to be affordable and sustainable. Providing data for free will not provide the long term datasets of high quality and support expected from its users. Without a sustainable base the quality of the data will decline and the usability will diminish. Hence, careful consideration should be given to develop a sustainable business model for affording those core datasets that are essential to the delivery of public services.

INSPIRE Regulations: charging policy

As noted previously, it is important in the establishment of policy and practice for a PDC that for spatial datasets full account is taken of the statutory provisions set out in the INSPIRE Regulations. In relation to charging, the INSPIRE policy is as follows.

INSPIRE Charging Policy

In relation to the INSPIRE Network Services set out above, for access by **the public**, no charge may be made for a **Discovery Service**.

A charge may be made for a **View service** but only where that charge secures the maintenance of spatial data sets and spatial data services, and particularly in cases involving very large volumes of frequently updated data. The charge for View services must be set at a reasonable level.

The INSPIRE Regulations also allow a reasonable charge to be made for **Download, Transform and Invoke Services**. The amount charged is set by the public authority.

Public authorities may make a charge for allowing access to, exchange or use of data with other public authorities but, under the INSPIRE Regulations, any charges:

- must be compatible with the general aim of facilitating the sharing of location datasets and location data services among public authorities and between public authorities and relevant organisations, and
- must avoid creating practical obstacles, occurring at the point of use, to such sharing.

The INSPIRE Regulations permit a reasonable return on investment to be made when charges are made in respect of sharing data with other public authorities (or third parties acting on their behalf).

Charges may not be made if particular EU legislation requires a report to be made on an environmental matter where it involves supplying location data or a service directly to an institution or EU organisation.

However, a public authority (A) may charge another public authority (B) for datasets despite public authority B having an EU reporting requirement as set out above.

It should be noted that the European Commission may request that information is provided on how charges have been calculated.

Legacy data

There will be a cost issue for many organisations if they are required to transform before publication of legacy data sets to meet requirements such as INSPIRE. This may present difficulties and form the basis for an argument in favour of charging. If the public authority has to collect and maintain the data as part of the discharge of its normal public duties, then the charges should only relate to the cost of making that data available - not of collecting or maintaining it. It should be made clear that this will also include the cost for meeting open standards and other requirements as specified in INSPIRE and the proposed Open Data policy.

For bodies which may fall under the remit of the PDC, data is collected and maintained to provide a revenue stream, and obviously they will wish to protect this revenue stream. There may be other public bodies outside of the PDC's remit which may wish to do the same. There should be a suitable process to accommodate them as well.

Licensing

As with charging, any approach must ensure public bodies do this consistently, transparently and with minimal administrative burden for both parties. UK Location promotes and endorses the UK Government Licensing Framework (UKGLF) as the licensing framework for the use of spatial datasets covered by the INSPIRE Regulations.

The Location Council acknowledges the importance of licensing in the context of both the PDC and Open Data. This applies to location data that falls within the scope of INSPIRE. It is reflected in published UK Location guidance on licensing and the adoption of the Government's Open Government Licence as the main licence model for the re-use of spatial data.

The Council recommends also that:

- where practicable, licences should also be made available in electronic, machine readable form that can be referenced in computer applications; and
- licensing of use rather than of dataset is a key principle that should be adopted.

Consistency in licensing is crucial and this has been highlighted by the work of the UK Location Programme.

To promote uptake of data, steps should be taken to ensure that licensing is as simple and straightforward as possible. In particular licensing must not act as a deterrent or barrier to use of data sets, whether by commercial or non-commercial organisations. This will help to stimulate and encourage innovation and growth.

To help achieve this, the UK Location Council would support developer licence terms to encourage innovation.

Support for non-commercial use of data

Consideration should be given to policies that will remove barriers for non commercial use or re-use. This should include consideration of:

- a. establishing a position that all data created by public authorities in discharging their public task should, where possible, be made available universally without charge for non-commercial use;
- b. ensuring that data consumer organisations operating non-commercially are not penalised or put at a disadvantage in re-using data which is subject to charges – an example might be a charitable organisation that is operating non-commercially and whose activities are fulfilling wider policy aims; and
- c. streamlining the process in relation to third party intellectual property to remove barriers to making data more easily and more quickly available for non-commercial uses.

On point (c), in some cases where an organisation wants to supply data for free it is prevented from doing so because of third party rights. Consideration should be given to simplification of the approach to third party rights. Wider use could be made of measures such as that in the Environmental Information Regulations (Part 3, Regulation 12(5)(c)) which allows for the release of data sets that include third party intellectual property rights if it is in the public interest to do so. In addition, access to data sets compiled mainly from data collected by a public authority that contain third party data and which are requested for use by another organisation can be delayed by enforcing a charging regime which also places an administrative burden on all parties.

There are also challenges for the third sector, which under the 'Big Society' policy is being asked to pick up many of the previous responsibilities of the state. The Government will not be able to release free data to support these initiatives where it might be seen to conflict with competition. The proposal in the Consultation Document for harmonisation and simplification (Para 4.22) has the potential to make the situation worse for third sector organisations, by proposing charges based on access (that is, with an option to use) rather than actual use.

The organisations within the PDC must have a clear definition of their public task which should be consistent with policies being adopted. This will help to avoid potential conflict with other commercial organisations and keep it on the right side of competition law.

Regulatory oversight

The current governance landscape for data is fragmented and distributed, and often unclear. Establishing the PDC presents an opportunity to simplify the data policy and governance landscape, enabling greater clarity for publishers and consumers and reducing burdens for both. The PDC will be well placed to provide a more consistent set of policy arrangements among participating organisations and establish principles that could be applied more widely. From its position, the PDC will also be able to help data consumers understand how to make use of government data and which regulatory body they should approach to resolve any concerns about their rights.

INSPIRE infrastructure as a model for the future

The UK Location infrastructure provides an underpinning reference model based upon INSPIRE for UK-wide publication of data using a standards-based federated approach. Several key EU environmental directives utilise or reference this core INSPIRE location framework (for example Air Quality, Floods Directive, Water Framework Directive) and we expect that future environmental directives will similarly reference and expand upon INSPIRE.

The proposed European Statistical Programme for 2013-17 also requires publication of statistics to be aligned with INSPIRE. Location is critical to understanding the environment, transport, people and enabling evidence-based decision making to be placed in the context of local communities.

Because of these points we see it as essential that the framework provided and developing under the UK Location infrastructure provides a common (cross-public sector) open and interoperable set of standards for common use. We would recommend that under a cross-sectoral approach that this location infrastructure supports the delivery of open data in a consistent, interoperable and cost effective way.

The underpinning standards would appropriately form a key part of the open standards for the public sector and be the first place ICT projects within the public sector (and ideally more widely) start when considering the location context of their data. The UK Location Programme has been working closely with the CTO Council Information Domain and the developing open standards process (ITC Strategy action 15). As INSPIRE is cross-public sector there also have been many links that have highlighted the keenness to utilise and re-use our underpinning standards but also many gaps where a common agreed framework would reduce duplication and excessive wasted effort.

We would support a policy which defined at early stages in projects a set of open standards that should be applied; part of the set of open standards must include those based on INSPIRE.

Open Data

The Location Council supports the aims of the Open Data agenda. As with the establishment of the Public Data Corporation, we would again stress, where spatial data is concerned, the importance of ensuring that the guidance and best practice that emerges from the Consultation Document should be consistent with the statutory requirements as set out in INSPIRE legislation, and the guidance, policy and best practice published by the UK Location Programme. In addition, care needs to be taken to align any policy and guidance with access and PSI Regulations.

It should be noted that all points made in reference to licensing under the PDC section are relevant to the discussion on Open Data and should be considered prominently when setting policy.

INSPIRE and Open Data

The public sector information landscape does, however, comprise a number of discrete, but related, strands which need to be addressed. The principal ones are: access (for example under the Freedom of Information Act 2000 and the Environmental Information Regulations); release of data through responses to access requests and by proactive publication of data; re-use as covered by the re-use regulations; and sharing of data. The INSPIRE Regulation cuts across each of these activities but particularly focuses on the sharing of data.

In order to provide assurance and promote adherence to Open Data standards and principles it is essential that policy is underpinned by a robust and effective regulatory framework. In the context of INSPIRE, there is a read across to existing regulatory processes covering access, through the Information Commissioner's Office, the Office of the Scottish Information Commissioner, and The National Archives / Office of Public Sector Information over the re-use of spatial data held by public sector bodies.

Location Council leadership

The Open Data area is an opportunity for Location Council member organisations to show leadership and to build on our experience in the practical operation of Open Data services to citizens, government and commerce. This presents a unique position for UK Location Council member organisations to take a lead in making the Location Sector an exemplar of Open Data, while ensuring a balance with affordability and sustainability for both location based data sets and for the organisations which produce them.

Development of an Open Data strategy

The delivery of an effective Open Data strategy would require the following elements to be met:

- an effective licensing framework;
- a supporting regulatory and complaints process;

- a commitment to delivery in re-usable formats; the development of comprehensive inventories, with supporting metadata, showing what data is available;
- clarity regarding charging, and
- sustainability for producers and their data sets.

These issues are all currently addressed within the context of INSPIRE.

Providing quality of data and services is essential to support both planned and unplanned innovation. Government should consider how best to use these valuable resources but should also make them available publicly to enable wider innovation in the market. There should be no second guessing by the Transparency Team, the PDC, the Location Council or individual data providers of potential innovative uses of data by others.

Right to Data

Some further points, not discussed in the Consultation Document, which should be given consideration to help achieve an enhanced Right to Data, are as follows:

- Establishing a shared core infrastructure to ease the publishing burden on individual organisations (including some core crosscutting information);
- Assistance with the prioritisation process;
- Providing a marking system to allow organisations to flag why datasets may not meet the criteria for publication;
- Setting up an arbitration process;
- Establishing a small set of interoperability standards such as linked data and core UK Location (INSPIRE based) standards that are open and non-proprietary as the default for data publishing.

Scope of data discussed in the Consultation Document

The major emphasis is on the publication of data relating to public services and performance, and using that to improve outcomes in frontline delivery. But what is not clearly brought out in the Consultation Document is the data which is used as an evidence base to develop Government policy. There will be people who will be interested in accessing this data to understand the reasoning behind Government policy, and particularly so for new policies with a high level of public interest.

The extent to which second order data (i.e. data that has been analysed, aggregated or combined) will come under Open Data needs to be considered over and above the raw data that is published. This takes us into the need to consider the overlaps between data and value added services, which also impacts charging.

A tighter definition of what data is in scope is therefore required. This is currently being looked at in the consultation on the INSPIRE Annex III specifications, where the Commission is presenting some quite broad definitions of what will be required.

Similarly, a classified list of organisations in scope would be better than only having a list of types of organisations in scope, although this is needed as well. There would be

benefits in applying such an approach consistently across as many government policy areas as possible. Care needs to be taken in any move to Open Data where data is provided by a public sector body in competition with private companies. 'Free' supply would be considered anti-competitive, while some funding scenarios could be construed as conflicting with state aid restrictions.

Definition of Open Data

The definition of 'Open Data' appears contradictory in the document. A consistent definition is required, which acknowledges that although the default is that charges should not be applied, charges may be made for some public data.

Quality and Standards

Five star rating

The five star rating for Open Data, with its emphasis on some aspects of accessibility, only covers a subset of the elements needed to assess quality of service for data provision. Under the star rating system a data set of poor quality and which is out of date could be given a high rating if it was available for free, in the right format and linked to other data sets. Consideration should be given to a different type of rating which promotes a wider range of factors of relevance to users of government data. These might include:

- Business interoperability – licensing and charging, user authentication;
- Technical interoperability – publication approach, use of common technical standards, metadata quality, response times in accessing data;
- Data quality – meeting user demand, fit for purpose, coherence, timeliness, accuracy, completeness, granularity, geographic coverage, standardised format, use of standard codes and symbologies, ease of combining with similar or related data;
- Usability of data service – discovery and access facilities, consistency of service, customer support, user feedback, interaction with other data users;
- Availability of applications – quantity and quality of applications that use the data and provide ready interpretation where required and value added integration with other data.

Risks from low quality data

On data quality and right to data, the Consultation Document mentions that data will be exempt from release if, for example, it is personal or threatens national security, and that all other data even that of low quality, should be published. It is important that consideration is given to the potential damage that the publication of low quality data may have on citizens and businesses.

For example, if we were to publish low quality data on areas prone to flooding and this was used to determine insurance premiums, then some households may be unfairly penalised with high premiums when they are not in fact located in a higher risk area. Care needs to be taken in particular with data that is used to determine risk or to detect

threats, and therefore to recognise the importance of ensuring that provision is made for their continued availability, currency and quality.

A distinction should be made for data quality which is approved by a public authority and that which is crowd sourced. This may be by way of a warning to be included in metadata.

Metadata – GEMINI2

UK Location uses the GEMINI2 standard for Discovery Metadata. We recommend that metadata is used with datasets, and that it should conform with GEMINI2. This will avoid unnecessary further expenses and align with an existing standard.

Linked Data

The UK Location infrastructure uses as its base the EU INSPIRE prescribed framework and aligns this in the UK context to obtain best value and increased benefits. The INSPIRE approach enables access to separate geospatial features and extents, which enables remote access in applications and download of selected data rather than whole datasets. This fits naturally with the concept of Linked Data and, in part through the significant influence of the UK in Europe, the EU approach has shifted to one that accommodates Linked Data in the provision of INSPIRE.

For the UK, there is a huge potential benefit in Linked Data and strong convergence with the Open Data proposals and the five star rating. By wrapping core INSPIRE services and data provision with wider (cross-domain) open standards such as linked data we can provide public service information in a location context beyond the typical geospatial communities.

Linked data concepts represent best practice in the use of location information in open data driven applications. There have been many advances in this area but also a number of challenges. For example, much of the proof of concept work has been driven forward by individual organisations working on discrete small scale projects rather any large scale collective action. Turning that into business as usual activities requires cross-organisation components in place, significant cultural change, particularly in IT departments, and re-skilling in a number of areas and investment in building the infrastructure.

If a policy setting the long term direction of Open Data supports the shift to Linked Data, as already modelled through the concepts produced via the Digital National Framework, it should recognise that this is a developing area and that, in particular, smaller organisations may find it difficult to resource the necessary changes. There needs to be encouragement for organisations to plan the skills development and data infrastructure to create the critical mass which will enable the anticipated benefits.

There are also some critical components that should be provided centrally for reasons of consistency and efficiency but also as enablers, such as core reference geographies, reference lists and vocabularies. There is also a need to build access to skills and suppliers through frameworks especially with the SMEs that are active in this area.

In all of this, the costs of linked data publication and building linked data applications will need to be considered alongside the benefits. We will need to learn from the pilots being

undertaken using Linked Data for bathing water quality (Environment Agency), publication of core statistical geographies (Office for National Statistics) and elsewhere.

Governance

The UK Location Council endorses the Sector Transparency Board approach. It would welcome serving as a crosscutting Sector Transparency Board for location data, facilitating the release of key datasets by the departmental Sector Boards and helping these Boards establish the approach to publication and use of location data in their Information Strategies. Through its links with Departmental Sector Boards, the Location Council could also establish common demands and issues in relation to location data and help resolve these through its strategic approach.

Individual organisations would benefit from having a senior transparency lead accountable (and reporting progress) to its Sector Board.

There is an issue for civil servants which will need to be resolved in order to achieve the stated aim of more collaborative working between public service and commercial users (in paragraphs in 8.20 and 8.22 of the Consultation Document). Section 13 of the Civil Service Code requires that Civil Servants "must not: act in a way that unjustifiably favours or discriminates against particular individuals or interests". This presents an issue in promoting best practice commercial organisations to help foster wider innovation. A possible solution is to give all relevant commercial organisations the ability to demonstrate their credentials.

Annex: UK Location Council member organisations

Association of Geographical Information (AGI)
Cabinet Office
Department for Environment, Food and Rural Affairs (Defra)
Department for Business, Innovation and Skills (BIS)
Department for Communities and Local Government
Department for Transport (DfT)
Environment Agency
HM Land Registry
Local Government Association
The Met Office
Ministry of Defence
The National Archives
National Health Service
Natural Environment Research Council (NERC)
Northern Ireland Land and Property Services
Office for National Statistics
Ordnance Survey
Scottish Government
Shareholder Executive
UK Location User Group
UK Space Agency
Welsh Government