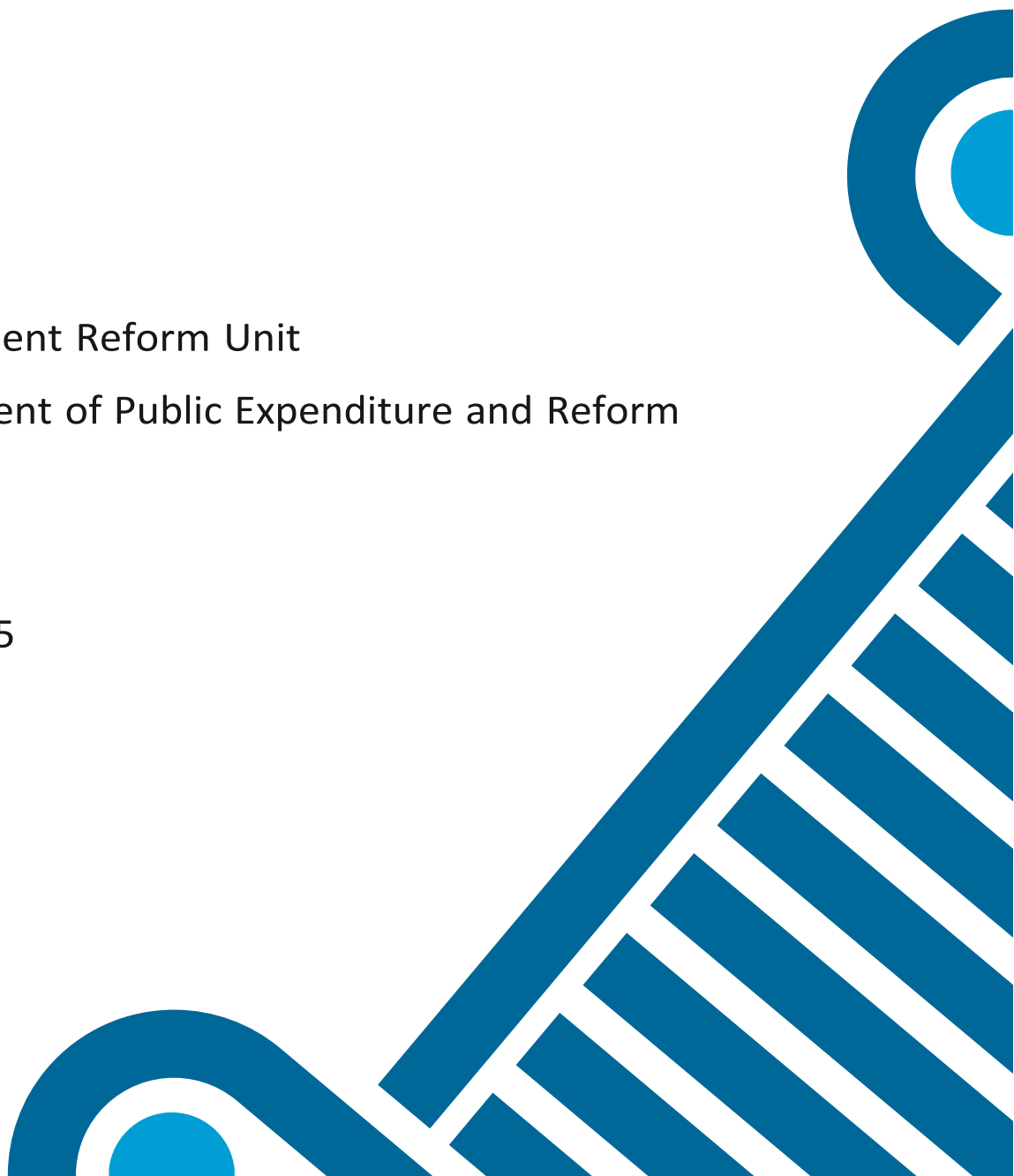


# Foundation Document for the development of the Public Service Open Data Strategy

Government Reform Unit  
Department of Public Expenditure and Reform

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# Public Service Open Data Strategy

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## 1. Introduction

The world is an increasingly digital place. Citizens and businesses use their smartphones, tablets and laptops to interact with each other, to transact business, and to deal with the Public Service<sup>1</sup>. This has resulted in a massive increase in the amount of data being produced by public bodies. Lots of this data is already being published for re-use.

### Examples of Published Data



This data is valuable; and technology and data are being used to transform the way services are planned, delivered and managed. As public bodies have progressed in areas like eGovernment and data analytics, the potential of data and, in particular, open data to help deliver economic, social and democratic benefits has become clearer.

The concept of Open Data is about making data held by public bodies available and easily accessible online for reuse and redistribution.

Data Protection legislation applies to the publication of datasets as Open Data. Where datasets intended for publication contain personal data they should be effectively anonymised and/or aggregated in an irreversible manner that does not allow an individual to be re-identified, singled-out or inferred, in which case it will not be considered to be personal data.

To drive progress on Open Data, the Minister for Public Expenditure and Reform, Mr. Brendan Howlin, T.D., has initiated a consultation on the key issues that need to be incorporated into Ireland's Open Data Strategy, to identify the key elements required to achieve the potential benefits of Open Data.

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<sup>1</sup> The Public Service comprises a diverse range of Government Departments, Offices and Agencies (referred to in this document as 'public bodies')

delivering a wide range of services across all areas of society and business.

## 2. Definition of Open Data

### **Definition of Open Data**

*“A piece of data or content is open if anyone is free to use, reuse, and redistribute it — subject only, at most, to the requirement to attribute and/or share-alike” (Open Data Handbook<sup>2</sup>)*

*Open Knowledge<sup>3</sup> defines Open as “anyone can freely access, use, modify, and share for any purpose (subject, at most, to requirements that preserve provenance and openness).”*

## 3. Purpose Statement for Public Consultation

### **Purpose Statement for Public Consultation**

To engage with all interested stakeholders to identify key issues and elements for inclusion in Ireland’s Open Data Strategy.

It is envisaged that the Open Data Strategy will outline a coherent framework in which the Irish Public Service will deliver Open Data; and will help realise the economic, social and democratic benefits of Open Data.

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<sup>2</sup> <http://opendatahandbook.org/guide/en/what-is-open-data/>

<sup>3</sup> <http://opendefinition.org/>

#### 4. Aims of Open Data Strategy

In the context of data which is not personal or sensitive, the Open Data Strategy will meet the following aims:

- Establish mechanism to measure success in realising the benefits of Open Data.
- Establish a lifecycle approach to Open Data, setting out the activities that are required in terms of data audits, developing publication plans, and publishing data via data.gov.ie
- Ensure sound governance structures to ensure that a consistent and coherent approach to Open Data is pursued across all public bodies.
- Promote usage of Open Data through engagement with appropriate structures and Sectors
- Improve the quality of data available to public bodies for analysis and decision-making to achieve better outcomes for all through improved data analytics.
- Set out a consistent approach to Open Data for public bodies.
- Identify specific domains for particular attention to allow for release of high value datasets, on a phased basis. Potential domains for the first phase include, but are not limited to:
  - Environment,
  - Health,
  - Transport,
  - Culture and Heritage,
  - Flooding.

## 5. Vision Statement for Open Data Strategy

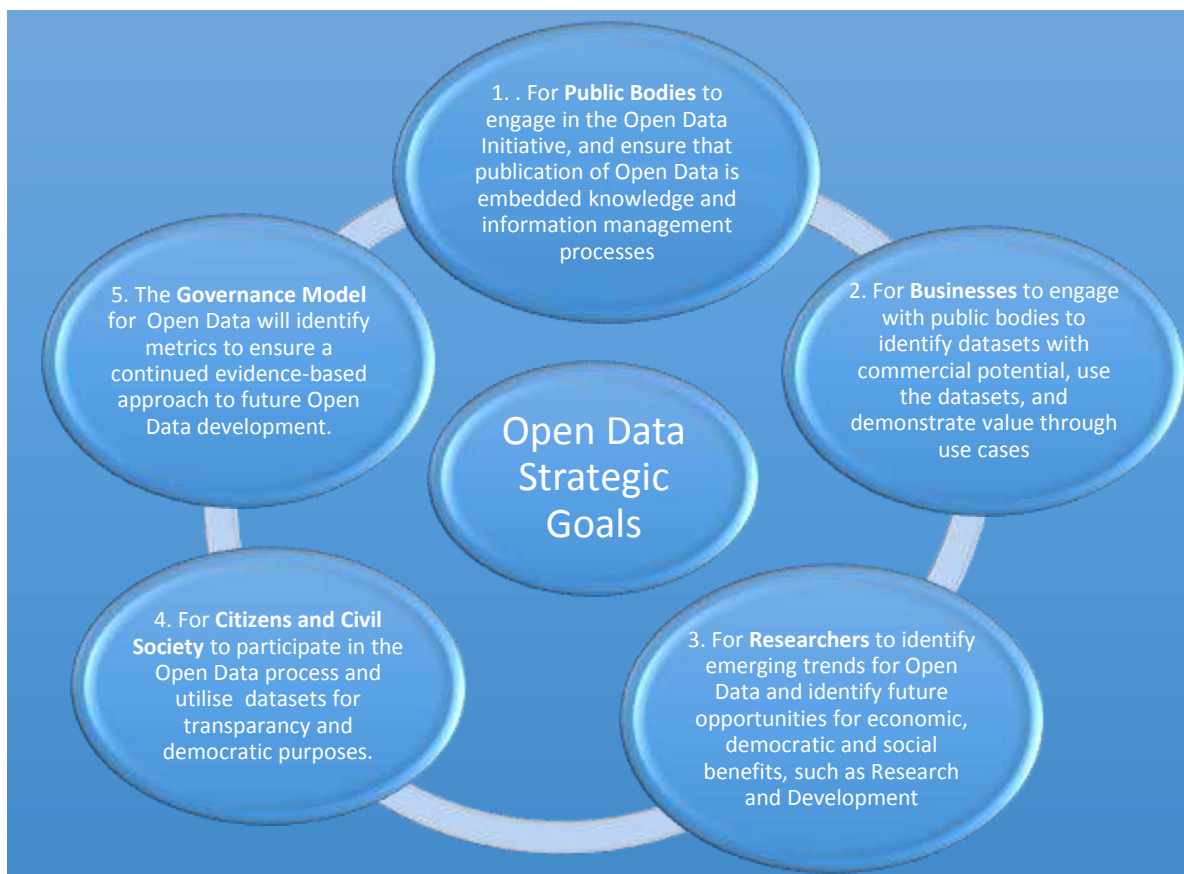
In looking to the future of Ireland's Open Data Initiative, it is important to set out a Vision, a clear declaration of Ireland's ambition and intended direction for Open Data:

Our vision is for Ireland to develop as a country where the economic, social and democratic opportunities and benefits of Open Data are recognised and achieved by all stakeholders.

This Open Data Strategy aims to create an environment where, by opening up Government data, new opportunities for research, innovation, transparency, engagement and greater efficiency are delivered and realised by public bodies, businesses, researchers and citizens.

By doing this, Ireland will be able to exploit the potential of Open Data to generate business opportunities, stimulate economic growth, and build trust in Government.

To achieve this vision, the first part of the Open Data Strategy will set out challenges for public bodies, business, and researchers to encourage engagement and maximise the potential benefits of Open Data.



Open Data Strategic Goals

## 6. Benefits of Open Data

Open Data has significant potential to deliver valuable benefits across society. In terms of social and democratic benefits, Open Data can lead to, *inter alia*:

- More transparency and accountability of public bodies. Significantly greater availability of Open Data can play an important role in strengthening openness, transparency and accountability and is an important element of Ireland's Open Government Partnership National Action Plan.
- Better data discipline in public bodies, providing for greater efficiency and effectiveness of service delivery.
- More citizen participation and inclusion.

In terms of economic gains, these are expected to be generated in three main areas:

- Business innovation: Broader and more rapid access to data will make it easier for researchers and businesses to build on Government research. This may boost innovation capacity in fields like pharmaceuticals and renewables.
- Business Creation: Opportunities for Open Data inspired products or services which add value to the data generated by public bodies.
- Business efficiency: Businesses and public bodies could benefit from Open Data by gaining more precise and complete insight into customer preferences and needs, thus becoming more efficient in tackling those needs and at the same time contributing to a smart growth.

## 7. Ireland's Open Data Initiative

Open Data has been recognised by the Government as having a powerful role to play

in achieving better outcomes under the Public Service Reform agenda. Accordingly, Open Data is an important element of a wide variety of key policy documents and action plans. The Public Service ICT Strategy, in particular, identifies data as a critical enabler of Public Service Reform, facilitating "increased data sharing and innovative use of data across all Public Bodies to enable the delivery of integrated services, improve decision making and improve openness and transparency between Government and the public". The ICT Strategy recognises Open Data as a priority and will support the development and adoption of an evidence-based Open Data policy and delivery for the Irish Public Service.

Ireland's Open Data Initiative intends to encourage public bodies to release data in open formats and to create an environment in which the use and re-use of open data to help realise social, democratic and economic benefits is encouraged and facilitated. While the Open Data Strategy objectives will be achieved over time, the target is that all appropriate datasets will be "Open by Default".

Progress in Open Data will also help public bodies to comply with legislative requirements under the EU Re-Use of Public Sector Information (PSI) Regulation and the forthcoming Data Sharing legislation. Opening up of data has the potential to reduce FOI requests by already having data released; and is also in line with the move towards proactive publication of information outside of FOI under publication schemes.

Open Data's contribution to strengthening openness, transparency and accountability is a core element of Ireland's Open Government Partnership National Action Plan.



**Alignment of Open Data with other reform initiatives**

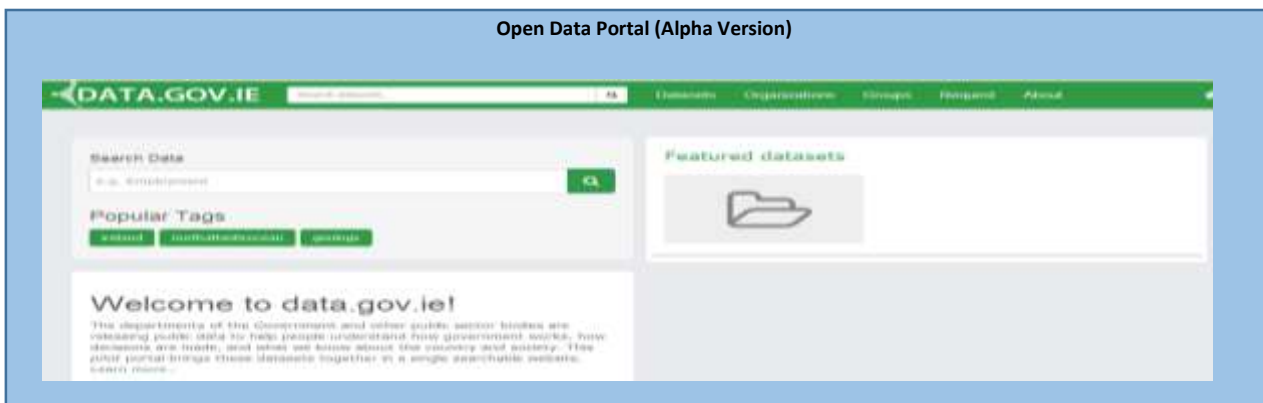
Significant progress has already been achieved with the development of an alpha national Open Data portal, data.gov.ie, which links to more than 560 datasets. Data.gov.ie is a directory of links to machine-readable datasets published elsewhere on the Web, usually on a public body's website. A significant number of the datasets listed on the portal are imported through harvesters linking with the CSO's StatCentral service and the Irish Spatial Data Exchange; and consideration is being given to potential further harvesters.

In addition to facilitating online searches for data, the portal also contains a "Suggest a Dataset" feature, through which requests for additional datasets are forwarded to the

responsible public body for further consideration.

A beta version of the portal will be launched in June 2015, which will include additional features, including improved search function, data analytics, grouping of datasets under topics, and additional datasets. As the Open Data Strategy is rolled out over time, additional features will be added to ensure that data.gov.ie is a valuable resource for producers and users of data.

This Strategy will set out the steps required to ensure that the portal meets the highest international standards as a true Open Data portal where datasets are free to use, reuse, and redistribute.





## 8. Setting a Vision for Stakeholders

### 8.1 A Vision for Public Bodies

Under the Open Data Strategy, all Public Bodies will engage in the Open Data Initiative, and ensure that Open Data is embedded in their knowledge management processes.

Public Bodies will:

- Adopt best practice in data management to ensure they understand the datasets they hold and ensure that all appropriate new datasets are considered for release as Open Data during the development phase. This should include consideration of releasing datasets as Open by Default.
- Make it easier for any interested stakeholder to access, re-use and redistribute Government data, whether for commercial, research or citizen engagement purposes.
- Ensure that datasets published meet with the requirements of the Open Data Technical Framework, including ensuring that Open Data is free to re-use.
- Build trust in Open Data by ensuring that it is regularly updated; and that it safeguards the rights to privacy under Data Protection law. This means that anonymisation and/or aggregation of data is tested to ensure compliance with best practice.
- Collaborate with other stakeholders to identify possible pilots and ensure that appropriate datasets are made available as Open Data.
- Identify and address capacity building requirements, as envisaged under the Public Service ICT Strategy and Civil Service Renewal Plan to ensure that the skills needed in a data-driven Public Service are available to public bodies.

- Use data analytics to improve the administrative functioning of the Organisation through use of the data itself, and by making it available to others.
- Use Open Data to achieve efficiency and effectiveness gains in their activities.
- Regularly engage in outreach and collaboration activities to raise awareness of Open Data, publicise Open Data progress, and seek input from business, researchers and citizens.
- Identify a member of their senior management team to become an Open Data leader for their Organisation.

### 8.2 A Vision for Business

The success of this Strategy will depend on engagement and cooperation between all stakeholders. The Business community will engage with public bodies to demonstrate use cases and identify datasets with commercial potential.

Businesses will:

- Support the Open Data Initiative by seeking out and using Open Government Data to develop and improve data services and products.
- Identify sectors where potential economic benefits can be achieved by wider availability of Open Data. Examples of sectors where Open Data may deliver benefits include, for example:
  - Tourism,
  - Culture and Heritage,
  - Transport,
  - Energy & Environment,
  - Health,
  - Planning,
  - Education,
  - Science and Research

- Develop their own strategies to exploit the value of Open Data.
- Participate in measurement activities to capture benefits realisation of Open Data-enabled enterprise.
- Communicate Ireland's success in Open data internationally to foster further investment and innovation using Open Data.

### 8.3 A Vision for the Research Community

The Research Community has a key role to play in identifying the economic, social and democratic opportunities of Open Data.

Researchers will:

- Identify emerging national and international trends for Open Data.
- Develop metrics that allow benefits capture: for example, what contribution does Open Data make to improving efficiency and effectiveness of Public Service delivery.
- Identify opportunities to improve accountability and transparency through Open Data.
- Consider the potential for increasing citizen engagement in Open Data activities.
- Through publication of Use Cases, help drive uptake of Open Data for Research and Development purposes.
- Use Open Data to further innovation through research and, where the research

is public-funded, make their research findings available in Open Data formats.

- Identify future skills needs to ensure students acquire the skills necessary to succeed in a data-driven economy.

### 8.4 A Vision for the wider Community (Citizens and Civil Society)

The Civil Society/Citizens community has an important role to play in ensuring that Open Data supports good practice in maximising the transparency and accountability gains from the release of datasets. This is particularly important in the context of Ireland's Open Government Partnership Action Plan<sup>4</sup> which spans three main areas:

- Open Data and Transparency,
- Citizen Participation, and
- Rebuilding public trust in Government

Under the Open Data strategy, citizens/Civil Society will:

- Use Open Data to participate in decision-making and consultations.
- Identify new datasets to publish as Open Data.
- Be engaged by public bodies early in the legislative process.

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<sup>4</sup> <http://www.ogpireland.ie/wp-content/uploads/2013/08/Published-Draft-OGP-National-Action-Plan-08-05-2014.pdf>

## Operational Strategy

### 9 What are the Key Principles of this Open Data Strategy?

The Open Data Strategy will outline a coherent and consistent approach to the publication of Open Data by public bodies. Processes developed to support implementation of this Strategy, including the Technical Framework for Open Data will lead to persistent and repeatable processes that can be shared among public bodies and better facilitate the release of appropriate datasets based on real demand.

The Open Data Strategy will support the goal of the Public Service Reform Plan to achieve better outcomes for citizens, businesses and public servants. The Public Service Reform Plan envisages that these better outcomes will be delivered through a focus on service users, on efficiency and on openness, underpinned by a strong emphasis on leadership, capability and delivery.

It is proposed that Ireland's Open Data Strategy includes the following principles:

- 1 The needs of citizens and businesses are at the centre of Ireland's approach to Open Data**
- 2 Open Data is considered the default option for appropriate new datasets. Where requested datasets are not released as Open Data, the responsible public body will provide reasons why not**
- 3 Open Data, linked through the portal data.gov.ie, will meet the requirements of the Open Data Technical Framework over time:**
  - **Licence (allowing people to use data)**
  - **Formats ((e.g., using non-proprietary instead of proprietary formats)**
  - **Metadata (precise descriptors about datasets)**
  - **Standards (to ensure a common understanding of the data)**
  - **Unique Resource Identifiers**

Principles of Open Data Strategy

Ireland's Open Data Strategy is informed by the key principles of the G8 Open Data Charter.

#### G8 Charter Principles

- **Principle 1:** Open Data by Default
- **Principle 2:** Quality and Quantity
- **Principle 3:** Usable by All
- **Principle 4:** Releasing Data for Improved Governance
- **Principle 5:** Releasing Data for Innovation

G8 Charter

## 10 Understanding our Data Sources

The Open Data Strategy recognises the importance of a planned and structured approach to the publication of data as Open Data. Public bodies should take into account the value, potential for re-use and contribution publication of data can make to realising benefits. Organisational data audits play a key role in this regard.

For the purposes of the Open Data Strategy, a dataset is defined as:

*A collection of data, published or curated by a single agent, and available for access or download in one or more formats. A source of a dataset may be a database, an information system, a spreadsheet, etc. A dataset could refer to both operational and administrative data. Datasets include registers, ongoing data collections and surveys, geospatial datasets, tabular, administrative, performance related, data collected in relation to organisation functions, etc.*

### 10.1 Audits

In making data open public bodies seek to do so in an intelligent and managed manner. A key priority is to identify the data which they already hold. To ensure that the expansion of the portal, data.gov.ie, leads to the availability and use of high value datasets, a planned and structured approach to the publication of data as open data is required. This approach should take into account the value, potential for re-use and contribution a dataset can make to achieving the economic, social and democratic benefits of Open Data.

Organisational data audits play a key role in this regard. More generally, auditing of datasets should be seen as part of an organisation's information management strategy. The Open Data Strategy recognises that there is considerable value in having a comprehensive list of the datasets created, managed and maintained by each Department, regardless of whether or not they can be published at present. Progress in this area will support the objective of the Civil Service Renewal Plan to improve data management processes and data quality. It also supports the ICT Strategy commitment to treating data as a corporate asset and will support data sharing in due course.

Under this Open Data Strategy, all public bodies will be required to conduct an audit of their datasets using a template developed by the Department of Public Expenditure and Reform, based on the COMSODE methodology<sup>5</sup>.

#### **Actions**

All Government Departments will conduct an audit of their datasets by [date]

All other public bodies will conduct an audit of their datasets by [date]

### 10.2 Publication Plans

The output of the audit would not only facilitate publication of datasets via

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<sup>5</sup> <http://www.comsode.eu/>

data.gov.ie, but would also promote the effective management of information across the public bodies.

Following the audit, each public body should produce a Publication Plan for their datasets. In the context of the datasets included in the audit returns.

It is proposed that the following steps be taken towards publication as Open Data, taking account of the balance between costs and anticipated benefits.

Factors to be considered in preparing data for publication as Open Data include:

1. Where a dataset is already published and linked to the Open Data portal, are enhancements or modifications required to make the datasets more searchable?
2. Where a dataset is already published, but not as Open Data, consider whether it can be linked to the Open Data portal. Are any enhancements required, e.g., in terms of formats, etc.?
3. Are unpublished datasets suitable for publication as Open Data, or can they be published following any necessary actions (e.g., associating with Open Data licence, aggregation, anonymisation, etc.)?
4. Where a dataset requires anonymisation before publication, how will this process occur?
5. Can personal or commercially sensitive data be irreversibly anonymised or aggregated to allow publication?
6. Is publication feasible in terms of the efforts required and costs of publishing as Open Data; compared to the potential demand or benefits?

The development of Publication Plans should take account of “high-demand” datasets, such as regular information requests,

Representations to Ministers, Parliamentary Questions, responses to Open Data surveys, requests through the Open Data portal, and other requests arising from other engagement with the Open Data user community, as appropriate.

#### **Actions**

Each public body will develop an Open Data Publication Plan within [x] months of completing their audit.

Publication Plans, detailing any cleansing, modifications or anonymisation/aggregation should be approved by the Management Board of each public body.

The Publication Plan, including timelines, should be submitted to the Department of Public Expenditure and Reform [as part of Integrated Reform Plans]

## 11 Publishing Datasets

The key objective of this Strategy will be to ensure that high quality datasets are released and published via data.gov.ie.

Publication of datasets via the portal will be based on the requirements of the Open Data Technical Framework, which has been developed in collaboration with the Public Bodies Working Group.

The Open Data Strategy will use the 5-star deployment scheme for Open Data<sup>6</sup>. The greater the number of stars, the more reusable the data is, and the easier it is to reuse and interconnect data.

While public bodies are encouraged to maximise the openness of their formats and move towards 4 and 5 Star linked data, this Strategy recognises that this will take time and public bodies may adopt a phased approach to reaching required Open Data formats.

### Action

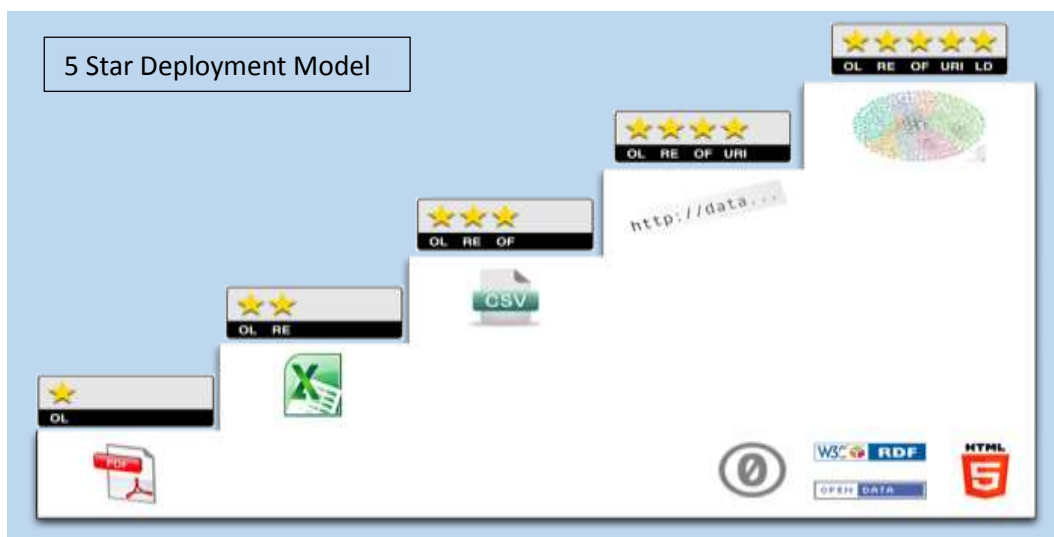
The initial minimum target of this Strategy is for Open Data to be published at a minimum 3-Star format (non-proprietary machine-readable format).

Accordingly, all datasets published on the Open data portal will, within an agreed timeframe, be:

- Machine-Readable
- Non-Proprietary
- Associated with an Open Licence
- Described by standardised Metadata

### Action

Where possible, public bodies should aim to publish as linked data, and specific targets will be set in this regard.



## 12 Open Data Governance

### 12.1 Open Data Governance Board (ODGB)

An Open Data Governance Board (ODGB) will be established on a non-statutory basis to provide leadership in line with best international practice in the area of open data. It will support the Minister for Public Expenditure and Reform and the Government in driving implementation of the National Open Data Strategy. The Board will consider opportunities to maximise the value of Open Data for long-term economic, social and democratic benefit, and will advise the Minister for Public Expenditure and Reform in this regard.

The Board will focus on governance of implementation of the Open Data Initiative across the Public Service, with particular emphasis on cross-cutting issues.

### 12.2 Public Bodies Working Group (PBWG)

The Public Bodies Working Group (PBWG) was established in October 2014 to support D/PER in agreeing a way forward on infrastructure and enabling issues. The result of the deliberations of the PBWG is the Open Data Technical Framework.

It is envisaged that, as implementation of the Open Data Strategy progresses, the PBWG will be tasked with considering capacity building activities; providing advice, guidance and ideas on implementation activities for the Open Data Strategy; and identifying Open Data projects and other initiatives to raise awareness, promote usage to ensure sustainability of Open Data activities. The PBWG will also

provide support, advice and guidance to public bodies in Open Data Strategy implementation activities.

### 12.3 Public Service Reform and Civil Service Renewal Plan Governance Arrangements

Public bodies provide regular progress updates under existing Reform Initiatives, including the Public Service Reform Plan. To minimise the reporting burden on public bodies, it is envisaged that high level Open Data developments will continue to be included in these regular reports.

### 12.4 Ensuring that Ownership of Data by Public Bodies is maintained in Procurement Activities

The Open Data Strategy will be supported by the existing Intellectual Property Rights provisions of the Office of Government Procurement's (OGP) standard services Request for Tenders ("RFT").<sup>7</sup>

The OGP stipulates that Intellectual Property Rights (IPR) title and interest in all reports, data manuals and/or other materials (other than software) (including without limitation all and any audio or audio visual recordings, transcripts, books, papers, records, notes, illustrations, photographs, diagrams) shall vest in the Client (the public body). For the avoidance of doubt the Contractor on signing the Agreement assigns all IPR, title and interest in the Materials lies with the public body.

IPR in data, information, output (in whatever media) and reports produced for the Client become the property of the Client."

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<sup>7</sup> <http://www.procurement.ie/suppliers/template-documents>

## 13 Facilitating, Encouraging and Measuring Data Usage

### 13.1 Use Cases

The value of Open Data ultimately lies in the use made of the data, and examples of use cases will help provide and maintain the momentum of the Initiative.

The end-use scenario will be assessed in a series of “Pilots” focussing on each of the three key area where benefits are anticipated.

It is proposed that the first three pilots will focus on:

- Business
- Transparency/Accountability
- Social Impact

Subsequent pilots will be developed in order to identify area where Open Data is realising real, measurable benefits.

The results of these pilots will be included in Annual Progress Reports for Government, which will be prepared by the ODGB in conjunction with public bodies, setting out the progress achieved in achieving the targets set out in this Strategy.

### 13.2 Outreach and Dissemination

The implementation of the Open Data Strategy will require collaboration and cooperation between data producers and data users to ensure that resources and efforts are targeted where most value will be derived.

Accordingly, regular outreach and dissemination events will be arranged to facilitate a constructive engagement between producers and users.

### 13.3 Capacity Building

There will be ongoing engagement between the ODGB, PBWG and public bodies to identify emerging training requirements and to, where appropriate, organise training events for Public Servants.

It is also anticipated that the Open Data Strategy will be supported by Capability Building activities outlined in the ICT Strategy.

## 14 Next Steps

The Open Data Strategy will be developed as a living document and will be subject to ongoing improvement over time.

The Actions set out in the Strategy are, in essence, “strategic” high level actions.

However, individual public bodies moving through the Open Data lifecycle, will be required, in their Publication Plans, to develop a schedule setting out when they intend to publish their data as Open Data which can be linked to the portal, [data.gov.ie](http://data.gov.ie).



## 15 Consultation Questions

1. Should the Irish Open Data Strategy use the Open Knowledge definition of Open Data, as per [opendefinition.org](http://opendefinition.org)? Are there other definitions that you think should be referenced?
2. The key principles for the Open Data Strategy are outlined as [Section 9](#) above. Are any additional Principles required?
3. Are the high level actions outlined throughout this document the correct ones to encourage wide participation among public bodies?
4. In “Understanding our Data Sources” at [Section 10](#) above, the proposed approach to auditing and preparing publication plans for Open Data follows the COMSODE methodology. Is this the correct approach? Are there important elements missing from the COMSODE approach?
5. [Section 11](#) stipulates that Open Data, linked through the portal [data.gov.ie](http://data.gov.ie), should comply with the Technical Framework. However, a phased approach to implementation is recommended. Which elements of the Technical Framework do you consider to be most important for initial focus under the Strategy?
6. Do you agree that datasets published via the Open Data portal should be required to comply with minimum standards (e.g, non-proprietary machine-readable formats), or should other formats be allowed?
7. In a phased approach to publication of Open Data, which datasets do you think should be prioritised for linking to the portal?
8. Do you have a preference for any specific open and machine-readable publication formats?
9. Would any pilot projects be of particular interest in terms of use cases? Do you have any examples of where the benefits of publication on Open Data have been captured through measurement? Please share details of these examples.
10. Would you participate in any Outreach or Dissemination activities organised to promote the Open Data Strategy? Which activities would be useful for you?