1. Name of Governmental Department or Agency
Department of Public Expenditure and Reform

2. Title of the Project
Research on measuring the benefits and impact of Ireland's Open Data Initiative

3. Description of the Project
The Open Data Unit would like to engage a researcher to assess the economic benefit of Open Data in Ireland under a number of areas and to assess the impact of open data in Ireland. The Department of Public Expenditure and Reform has policy responsibility for Ireland's national Open Data initiative. The initiative is aligned with key Government priorities such as the Public Service Reform Programme, eGovernment Strategy, Civil Service Renewal Programme, Open Government Partnership Action Plan and the National Data Infrastructure. Open Data can lead to more transparency and accountability of public bodies, better data discipline in public bodies providing for greater efficiency and effectiveness of service delivery, more citizen participation as well as job creation. In terms of economic gains, these are expected to be generated in the areas of business innovation by creating opportunities for Open Data inspired products and services. The Open Data Strategy for 2017-2022 sets out the strategic objective, critical success factors and a plan for the implementation of Open Data policy in Ireland. Increased emphasis is now being put on measuring the impact of open data in the context of open data surveys at EU and international level.   This topic is also important for the Open Data unit in the context of measuring the impact of the initiative in Ireland. Outputs from this project will be used to inform the implementation and continued development of Open Data policy in Ireland and as input to OECD and EC surveys and reports.

4. Project Scope
A key output from the Open Data initiative to-date is the national Open Data portal which links to some 9,000 government datasets in open format.   Ireland's open data portal is connected to the European Data Portal to further extend the data flow channel. Significant progress has been made in progressing Ireland's open data initiative to date and in 2018 Ireland was ranked first in the EU for the second year for Open Data Maturity. Beyond the work being undertaken directly by DPER, there have been a number of other developments in this area that support the wider Initiative. In particular, a number of organisations have led the way in terms of releasing data. These include a number of the local authorities, the CSO, OSi, Met Eireann, Dept. of Housing Planning and Local Government. A wider Irish Open Data community, consisting of civil-society groups, citizens, SMEs, developers,

universities and public-bodies, has also been very active since 2010, regularly organising meet-ups, talks, workshops, competitions and hackathons, as well as publicising the Open Data agenda nationally.

The number of data downloads from the national portal Data.Gov.ie continues to grow and a voluntary survey is in place when data is downloaded. However, only a small portion of users complete this survey.

The task for the researcher is to carryout research into how open data is being utilised by businesses, civil society and within the public service to assess and determine the economic, political and social benefits, if any.

One of the key actions in the national Open Data Strategy 2017-2022 is the evaluation of the impacts, benefits and risks of the Open Data Initiative.

> Action 6.1: *Encourage the development of metrics that allow benefits capture, for example, what contribution Open Data makes to improve efficiency and effectiveness of public service delivery. Carry out and publish an evaluation of the impact, benefits and risks of the Open Data Initiative. Consider evaluation frameworks in use in other jurisdictions which address benefits and return on investment.*

In order to evaluate the impact of Ireland's Open Data Initiative, we envisage both a macro and mirco approach. A macro impact evaluation will examine the broad outcomes of the initiative from a social, political and economic perspective. At a micro level particular case-studies can be explored to get a clear understanding of the impact of Open Data in specific sectors and under a certain set of conditions. The development of the case studies and the research itself may necessitate the researcher surveying businesses, open data users and other relevant parties. It will also include the drafting, publishing and assessment of surveys and the organising of interviews with data re-users.

The scope of the proposed research would include some or all of the following:

Assess the benefit of Open Data in an Irish context
An assessment of the **economic benefits** of open data at macro and or micro economic levels in the Irish context: This should comprise:
- Development of specific Irish use cases on the benefits that have arisen from data that has been released as Open Data;
- An assessment of the economic benefits of open data for the public sector.
- An assessment of the economic benefits of open data for SME's.
- An assessment of government data that has not been released as open data and assessing the potential benefits and costs of its release.

Assess the Impact of Open Data in Ireland
Carry out research to assess the impact of open data in Ireland. This would comprise an assessment of the environmental impact, the social impact, the political impact and the economic impact of open data.
Environmental Impact

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Carry out an assessment of applications, activities or studies which used of open data in the environmental field or a sub-dimension of this field. These can include but are not limited to:

- Mobile or web-based applications that use available open data to tackle an aspect relevant to the environmental field (water, air quality, noise level in cities, waste management etc.)
- Applications that raise awareness on the noise level in cities.
- Applications that deal with waste management aspects.
  - *Applications can refer to mobile or web-based applications that are based on available open data and encourage the recycling of materials, show waste collection points for paper/cardboard, plastics, glass, raise awareness and educate the public on recycling, waste sorting and disposal etc.*
- Applications that enable more environmental-friendly transport systems in cities.
  - *Applications can refer to mobile or web-based applications that are based on available open data and encourage cycling, the use of electrical cars or car-sharing systems, show car sharing points, bicycle rental spots, electrical car/bike charging stations etc.*
- Civil society initiatives that are open data driven and aim to tackle a problem identified in the environmental field.

Carry out an assessment of applications, activities or studies which used of open data in the social field or a sub-dimension of this field. These can include but are not limited to:

- Use of open data to increase the inclusion of marginalised groups in society?
  - *Inclusion of marginalised groups describes the process by which individuals or entire communities of people (e.g. migrants, refugees, socially deprived groups or individuals, physically or mentally impaired) that are prevented from fully interacting with the rest of society, can interact with and integrate in their communities.*
- Use open data to raise awareness concerning housing in the city?
  - *Data that provides information on the housing market, rental market, property valuations, sales, planning, zoning, census data on socio-economic variables for cities and/or neighbourhoods, other housing issues such as homelessness, empty dwellings, gentrification.*
- Civil society initiatives that are open data driven and aim to tackle a problem identified in the social field.

In carrying out this research, it is envisaged that the researcher would:

- review existing reports/literature on measuring open data impact (EU, OECD, etc.)
- research how open data impact is measured in other jurisdictions
- work closely with the open data team in the Department of Public Expenditure and Reform to develop the research
- In doing so, consideration might be given to the development of a number of national performance measures that could be used to track (monitor and assess) the future progress of the Open Data Initiative in Ireland
- Consideration might be given to developing a number of use cases, for example looking at business who use open data

5. **Skills/Expertise Required**

- The candidate must be an independent researcher willing to take a leadership role on the project;
- The candidate should have excellent communication skills both oral and written including proven ability to write in English at a suitable standard for the preparation of written publications;
- The candidate must have previous experience in working on research projects, examples and references should be provided;
- The candidate should ideally have a knowledge of data and data analytics;
- It would be of benefit to the researcher to have an understanding of open data and be up to date on open data developments in Ireland and other jurisdictions; and
- Ideally, an established track record of publication in leading journals.

6. Expected Outputs of Project

The final outcome will entail the production of a report to present the findings of the research setting out the benefits and the impacts determined, if any, of open data re-use in Ireland.

- An analysis of the benefits accrued from open data to date in Ireland
- An analysis of the social, political and economic impact of open data in an Irish context
- the development of a number of national performance measures that could be used to track the future progress of the Open Data Initiative in Ireland
- The development of a number of use cases, for example looking at businesses who use open data, increases in business creation/business efficiency from the use of open data, new products or services developed through the use of open data etc.

7. Working Arrangements

The researcher would be based in the offices of the Department of Public Expenditure and Reform at St. Stephen's Green House, Dublin 2. Significant flexibility and remote working arrangements will be accommodated. The research may be required to attend Open Data events and meetings.

8. Expected Timeline

It is expected that this project could be completed within 6-12 months working on a full-time basis or 12-24 months on a part-time basis. It is envisaged that this project will commence as soon as possible.