



An  
Phríomh-Oifig  
Staidrimh

Central  
Statistics  
Office

# Developing Ireland's Data Hub

UN Seminar on Emerging Issues  
March 2<sup>nd</sup> 2018

# Geospatial & Statistical collaboration in Ireland



- **Founded in 1824**
- **Mandate:** *To provide a mapping service in the State*



- **Established in 1949**
- **Mandate:** *Collection, extraction and dissemination for statistical purposes of information relating to economic, social and general activities of the State*



# Irish Data Hub origins - CSO/OSi Memorandum of Understanding

- Signed in 2016
  - To develop **common identifiers among geographic and statistical datasets** as part of open linked data initiatives
  - Collaboration in providing **new dissemination channels** for statistical outputs
  - Provide technical solution to fulfil Ireland's reporting responsibilities under the **United Nations 2030 Agenda for Sustainable Development**
  - Promote the statistical potential of geospatial data as part of the wider development of the National Data Infrastructure



# Irish Data Hub origins - Common identifiers

- Agreed identifiers (GUIDs) for 12 geographies, which were incorporated into CSO and OSi datasets
- Boundaries published on National Open Data portal

<https://data.gov.ie/data>

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IRELAND'S OPEN DATA PORTAL

Promoting innovation and transparency through the publication of Irish Public Sector data in open, free and reusable formats.

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Arts, Culture and Heritage

Justice, Legal System, and Public Safety

Economy and Finance

Education and Sport

Energy

Environment

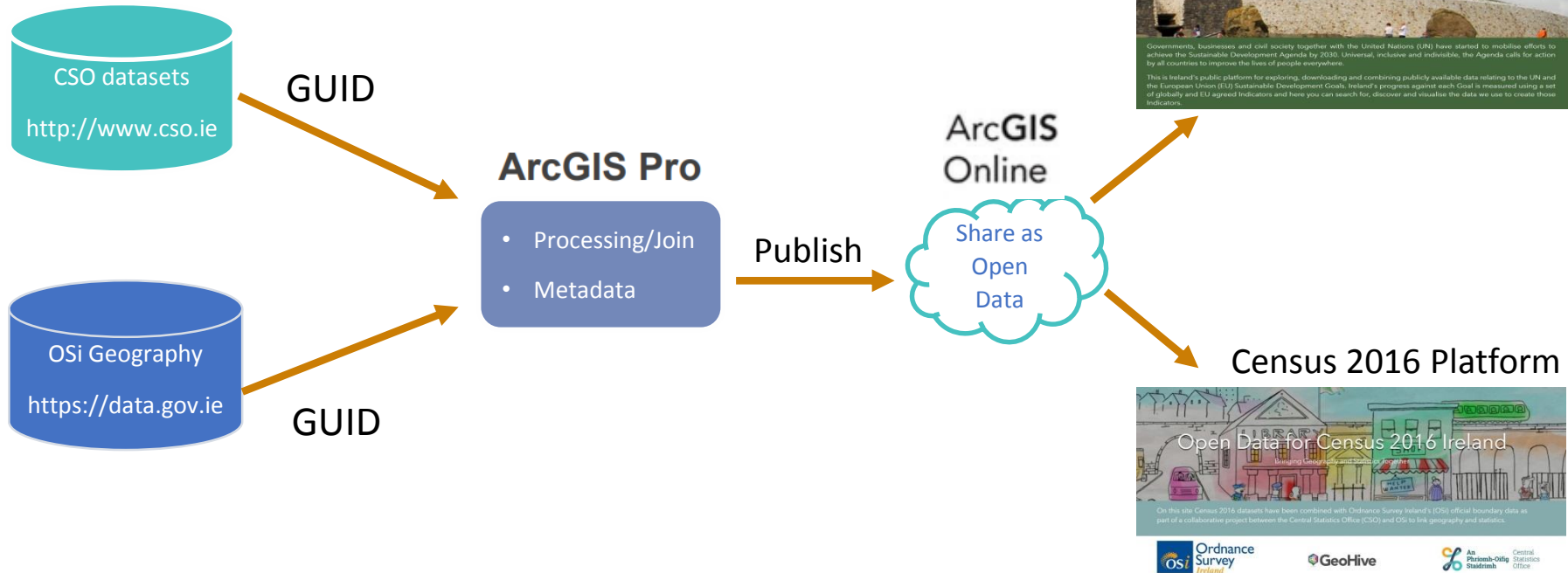


# Irish Data Hub origins - UNSD/Esri Project

- CSO and OSi along Esri Ireland, participating in the UNSD/Esri Research Exercise.
- Participation of seven UN Members - Ireland, Mexico, Senegal, Philippines, Qatar, South Africa and Australia
- This exercise commenced in May 2017 with a goal to develop and deploy a new approach for monitoring the UN SDGs using GIS



# Irish Data Hub workflow



# Census 2016 Platform



Open Data for Census 2016 Ireland

Bringing Geography and Statistics Together

On this site Census 2016 datasets have been combined with Ordnance Survey Ireland's (OSi) official boundary data as part of a collaborative project between the Central Statistics Office (CSO) and OSi to link geography and statistics.



# Census 2016 Platform

- Created to complement the release of Irish Census 2016 data.
- Its was built as an exemplar of the SDG portal, to inform stakeholder of the features and functionality of these types of websites.
- <http://census2016.geohive.ie/>
- Website built within three weeks of census data release (Aug 2017)





# SDG Platform



Ireland, Sustainable Development Goals Sign In

## 17 Goals to Transform our World

Governments, businesses and civil society together with the United Nations (UN) have started to mobilise efforts to achieve the Sustainable Development Agenda by 2030. Universal, inclusive and indivisible, the Agenda calls for action by all countries to improve the lives of people everywhere.

This is Ireland's public platform for exploring, downloading and combining publicly available data relating to the UN and the European Union (EU) Sustainable Development Goals. Ireland's progress against each Goal is measured using a set of globally and EU agreed Indicators and here you can search for, discover and visualise the data we use to create those Indicators.

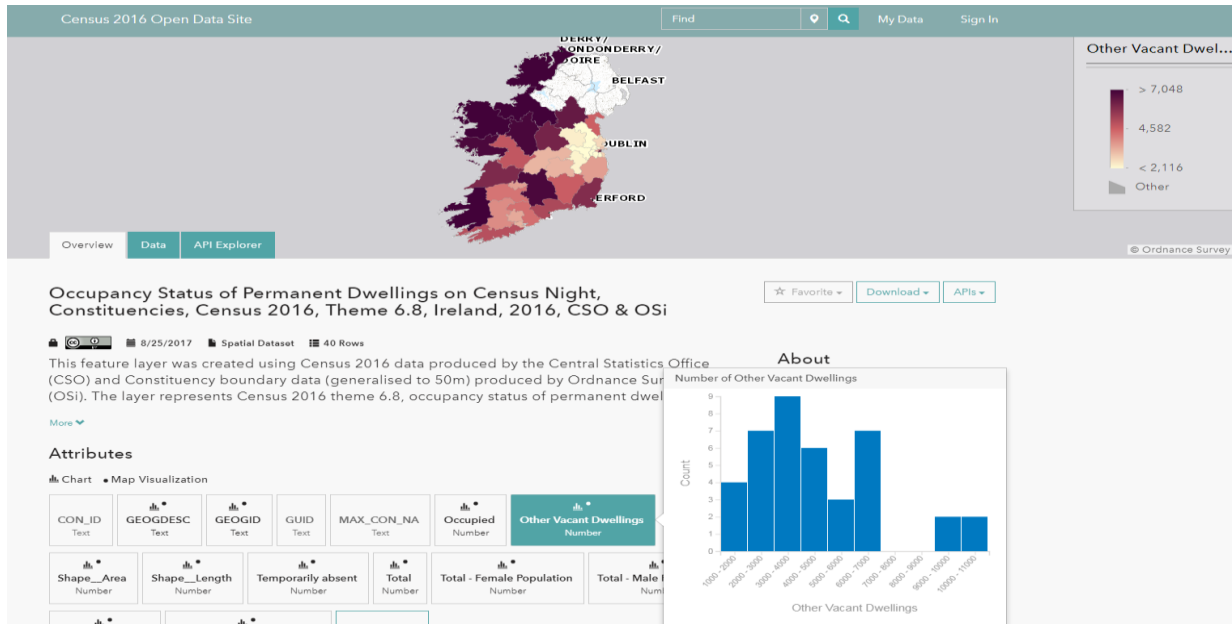


# SDG Platform

- <http://irelandsdg.geohive.ie/>
- **50+ indicators** (mostly Tier 1)
- **90+ datasets** at NUTS 3, county and census local area geography.
- The information contained on this portal will inform Ireland's progress against each Goal.
- Launched in November 2017
- Built to host UN, EU and National SDG Indicator values



# Ireland's Data Hub – Interactive MapViewer



# Ireland's Data Hub – Data Access



## 3. Good Health & Wellbeing

Ireland, Sustainable Development Goals

Find    My Data Sign In

Overview Data **API Explorer**

© Ordnance Survey Ireland

☆ Favorite Download APIs

### SDG 3.a.1 (UN) / 3.30 (EU), Smoking Prevalence as Percentage of the Population, NUTS 3, 2015, Ireland, CSO & OSi

Showing 1 to 8 of 8 Hint: Click on ▼ to filter columns.

▼ GUID	▼ GEOGID	▼ GEODESC	▼ Total Smoking Prevalence	▼ Total Smoking Prevalence Males	▼ Total Smoking Prevalence
B1A65D7C-1984-4A87-AD58-0E...	NUTS3_IE041	Border	17	17	16
A69CA800-8D87-4920-A7C1-50...	NUTS3_IE042	West	17	18	15
42C5C2A5-2D71-4BD1-BDB5-B...	NUTS3_IE051	Mid-West	19	22	17
27C93D4E-AD0E-4B0C-8FA8-35...	NUTS3_IE052	South-East	18	21	16
604546A1-A856-4B9B-AD46-E88...	NUTS3_IE053	South-West	21	22	21
F97E459B-57ED-49C0-8A28-2BC...	NUTS3_IE061	Dublin	20	22	19



# Ireland's Data Hub – APIs and Documentation



## 9. Industry Innovation & Infrastructure

Ireland, Sustainable Development Goals

Find    My Data Sign In

Overview Data API Explorer

© Ordnance Survey Ireland

### SDG 9.2.2 (UN) / 9.20 (EU), Manufacturing Employment as a Percentage of Total Employment, NUTS 3, 2017, Ireland, CSO & OSI

🔒 2/8/2018 Spatial Dataset 8 Rows

Explore this dataset's API by completing the fields below. The fields will populate the query URL and the output will appear in the JSON box below. If you'd like to know more about the API, please refer to the full REST API documentation.

★ Favorite Download APIs

#### Query URL

```
https://services7.arcgis.com/XXcQkuJ1T8yvG6/a  
rcgis/rest/services/SDG_9_2_2_NUTSIII/FeatureSe  
rver/0/query?where=1%3D1&outFields=NUTS1,NUTS1N  
AME,NUTS2,NUTS2NAME,NUTS3,NUTS3NAME,GUI  
D,FemaleTotal,TotalIndustryEmployment&outSR=432  
&f=json
```

Parameter	Value
Where	No Active Filters <input type="button" value="+"/>
Out Fields	<input type="checkbox"/> OBJECTID <input checked="" type="checkbox"/> NUTS1 <input checked="" type="checkbox"/> NUTS1NAME <input checked="" type="checkbox"/> NUTS2 <input checked="" type="checkbox"/> NUTS2NAME <input checked="" type="checkbox"/> NUTS3 <input checked="" type="checkbox"/> NUTS3NAME <input checked="" type="checkbox"/> GUID <input checked="" type="checkbox"/> GEOGID <input type="checkbox"/> GEOGDESC <input type="checkbox"/> MaleTotal <input checked="" type="checkbox"/> FemaleTotal <input checked="" type="checkbox"/> TotalIndustryEmployment <input type="checkbox"/> Shape__Area <input type="checkbox"/> Shape__Length



# Ireland's Data Hub – Storymaps

Story maps are in development across both platforms

Each story map will:

- open with policy commentary provided by the relevant Department, Agency or Office, and
- contain supporting information and relevant interactive maps

Explore the Sustainable Development Goals via Story Maps

Click any Story Map below to access an interactive narrative on a Sustainable Development Goal for Ireland.



# Ireland's Data Hub – Storymaps



## The Changing Patterns of Unemployment and Poverty in Ireland, 2011-2017

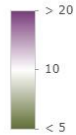
This Story Map illustrates changes in Ireland in relation to unemployment and poverty throughout the last decade. The Story Map has been developed to inform efforts in reporting Ireland's status in relation to achieving United Nations (UN) Sustainable Development Goals.

UN countries have adopted a set of 17 goals to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to help achieve the goals set out in the agenda by 2030.



# Ireland's Data Hub – Storymaps

10% the PES data shows, in general, a higher unemployment level.



% Unemployed - Total, Census 2016

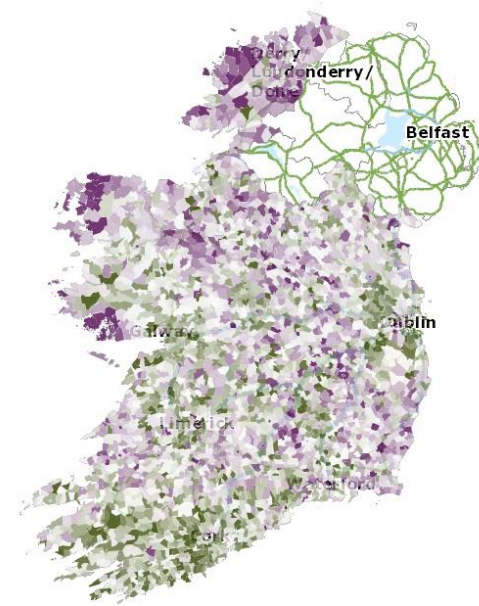
Number of Electoral Divisions with a 10% or Less  
Unemployment Rate

Census, 2016

**1559**

Census, 2011

**442**





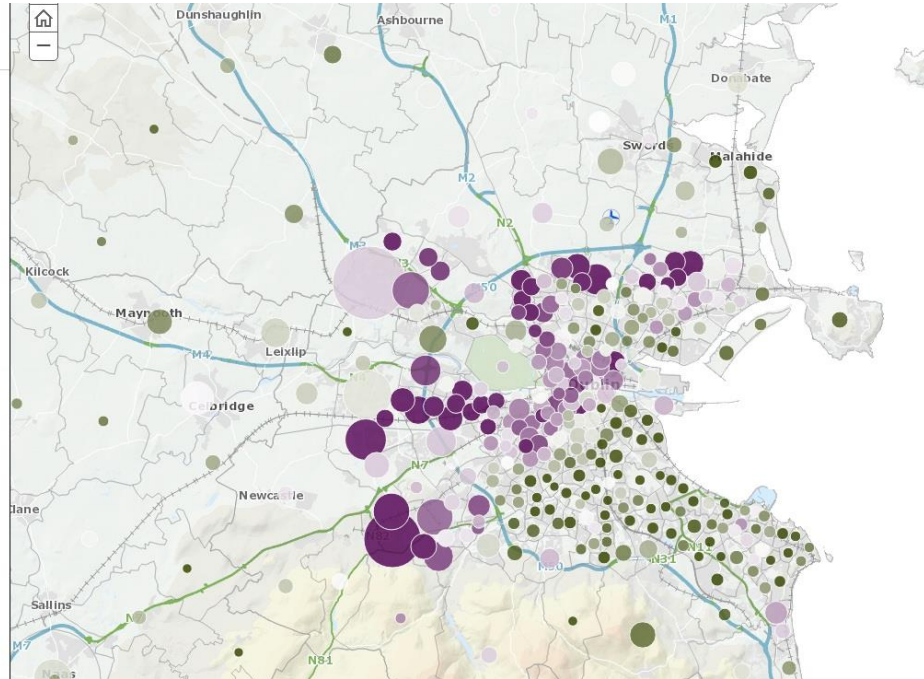
# Ireland's Data Hub – Storymaps

The Changing Patterns of Unemployment and Poverty in Ireland, 2011-2017

## A focus on cities

The map displays unemployment rate and total unemployed population from the Census 2016 at ED level. A closer look at Dublin illustrates varying unemployment rates within the area.

Data at this level provide a detailed representation of unemployment trends. This visualisation highlights the divide (North East, South West divide) in high and low levels of unemployment.



# Conclusions

- Strong benefits in closer collaboration between statistical and geospatial agencies
  - Ordnance Survey Ireland & Central Statistics Office
  - Technical partner (Esri Inc. & Esri Ireland)
- The value of a platform approach to national mapping and to national geospatial systems architecture
- Benefits of reusing existing systems and architecture





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Thank You

