



**An
Phríomh-Oifig
Staidrimh**

Central
Statistics
Office

Ireland's Integrated Response to COVID-19

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Co-chair of the WHO/UN Technical Advisory Group on COVID-19 Mortality Assessment

Sustainable Development Goals (SDGs)

- The United Nations Sustainable Development Goals (SDGs) are targets for global development adopted in September 2015, set to be achieved by 2030. All countries of the world have agreed to work towards achieving these goals.
- The 17 Sustainable Development Goals are defined in a list of 169 SDG Targets. Progress towards these Targets is agreed to be tracked by 244 Indicators, of which 232 are unique.



UNSD/Esri – FIS for SDGs Programme

The Irish Central Statistics Office (CSO), in collaboration with Ordnance Survey Ireland (OSi) and Esri Ireland, are currently participating in the **UNSD/Esri Federated Information System (FIS) for the Sustainable Development Programme**. This is an exemplar of both inter agency and public-private sector partnerships

This programme commenced in May 2017 with a goal to develop and deploy a new approach for monitoring the UN SDGs using geographic information systems – “geospatial potential of statistical data.”



Role of the CSO

The CSO has a central role in the:

- identification
- management, and
- presentation

of the data needed to meet the requirements of the SDG Indicators.

In this responsibility, the CSO will deploy, as far as possible, UNECE the Generic Statistical Business Process Model (GSBPM), which has 8 phases and 34 sub-phases.



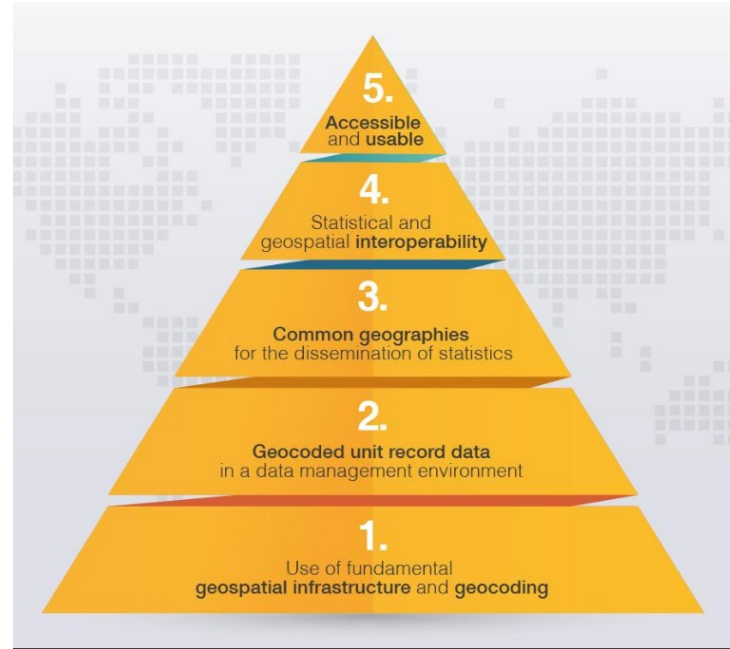
Generic Statistical Business Process Model



The Global Statistical Geospatial Framework (GSGF)

The Global Statistical Geospatial Framework (GSGF) is a high-level framework which facilitates consistent production and integration approaches for geo-statistical information.

It is generic and permits application of the framework principles to the local circumstance of individual countries.



UN-GGIM's Integrated Geospatial Information Framework (IGIF)



The Integrated Geospatial Information Framework provides a basis and guide for developing, integrating and strengthening geospatial information management.

Governance →

Technology →

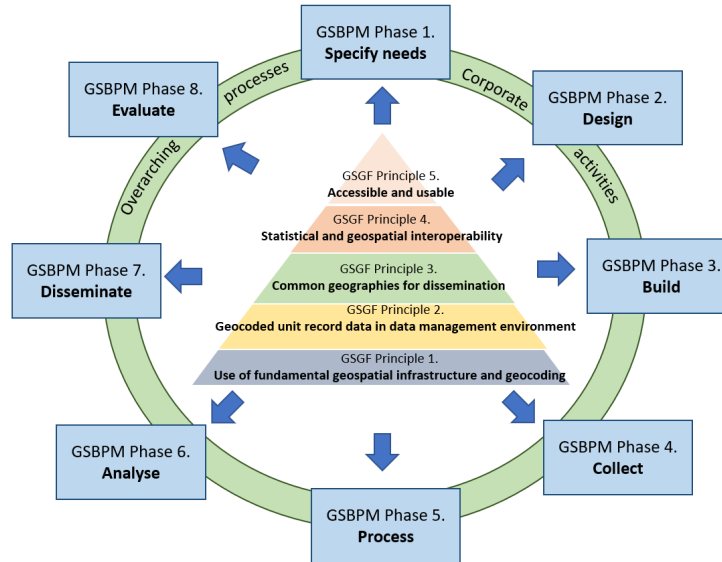
People →



Anchored by 9 Strategic Pathways, the Framework is a mechanism for articulating and demonstrating national leadership in geospatial information, and the capacity to take positive steps.



GSBPM and GSGF Principles



Tasks completed by Project Team

Sourced information for **211 of the 244 indicators** (mostly Tier 1), of which 60 have a geospatial aspect, and created **100+ datasets** at NUTS 3, county and census local area geography.

Developed Ireland's **SDG portal** build with Esri technology and hosted on OSi's web portal, known as GeoHive, where interested parties can openly access, visualise and download data and related APIs.

This portal was first released in November 2017 and further developed in July 2019

<https://irelandsdg.geohive.ie/>



Ireland's SDG portal



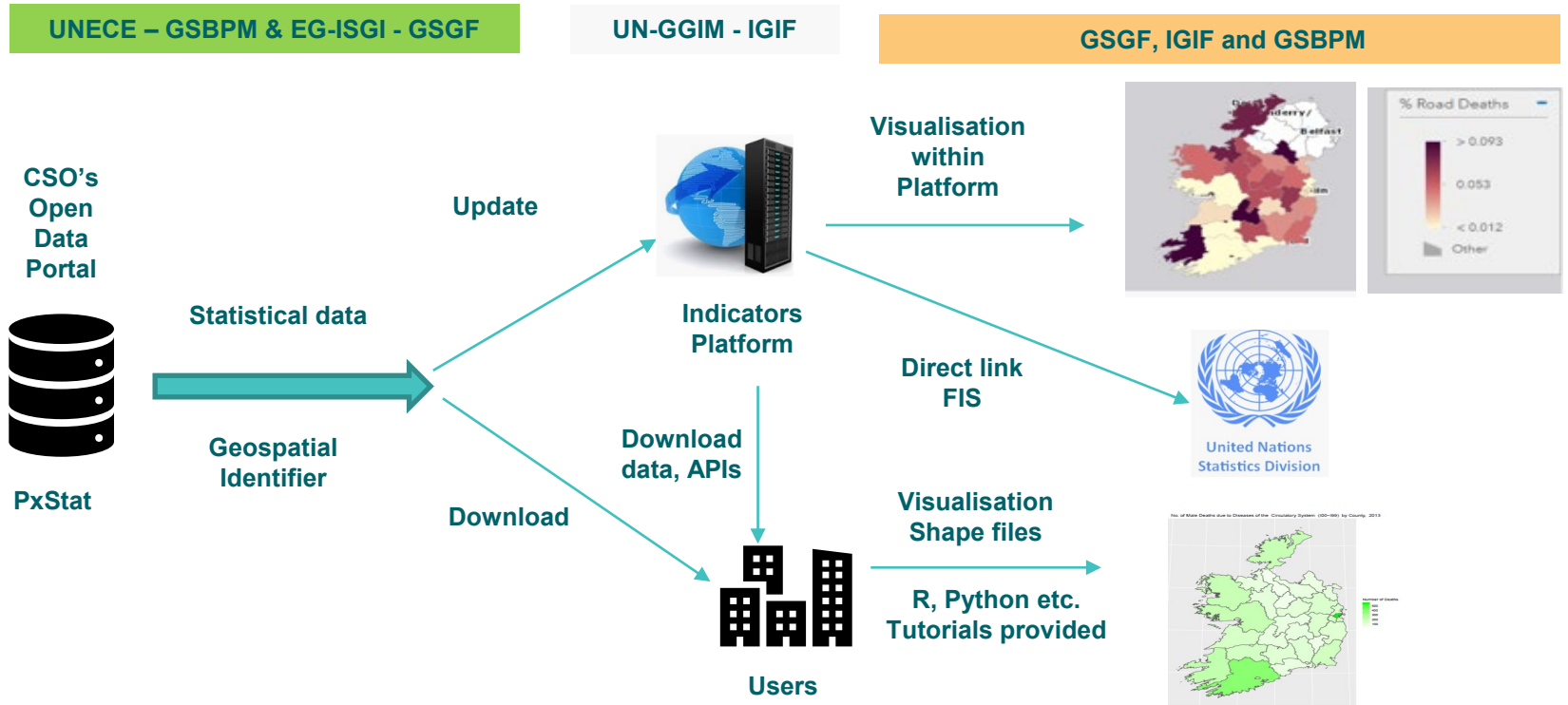
Welcome to Ireland's Sustainable Development Goals (SDGs) data hub.

This is a collaboration platform for reporting on progress towards the goals and sharing information on related initiatives.

Ireland's progress against each goal is measured using a set of United Nations (UN) global and European Union (EU) agreed targets and indicators.



Ireland's SDG reporting ecosystem



Ireland's SDG portal

Ireland's SDG portal was officially launched at the European Forum for Geography and Statistics (EFGS) Conference on 2nd November 2017 and redesigned in July 2019.

Site was well received across:

- Government,
- Public Sector, and
- Civil Society.

The information contained on this portal will inform Ireland's progress against each Goal.

The Department of Environment Climate and Communications (DECC) has responsibility for officially reporting on Ireland's progress towards meeting national SDG targets.



Governance

Established a OSi/CSO/Esri Ireland **data governance team** which holds weekly meetings.

In addition, the CSO established a national UN SDG Indicators Data Governance Board (UNSDGDGB) consisting of various stakeholders from Government Departments and Agencies, which meets on a quarterly basis.

The UNSDGDGB has responsibility for:

- metadata,
- business glossaries,
- lifecycle management, and
- data quality.



Governance, ctd.

There is also a UN SDG Civil Service Senior Officials Group, chaired by the DCCA, which both the CSO and OSi are invited members.

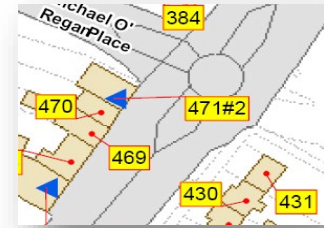
- This group is charged with developing the official reports on Ireland progress toward the SDG Goals.
- Subsets of this group have official responsibility for the policy aspects of individual Goals.



Measuring Distance to Everyday Services - 2019

Census 2016 (Origin)

- 98% of dwellings linked to address database prior to census
- 2% digitised by census staff
- 2,070,256 dwellings on final census dataset



OSi's PRIME 2 (Road network)

- Geographic Data Files level 2 (GDF2) from PRIME 2 database
- Over 300,000 segments
- Each segment is seamless and continuous, no broken lines or edges
- Generate network dataset using ArcGIS



Measuring Distance to Everyday Services - 2019

How to measure the distance to everyday services in Ireland

The overall aim of this analysis was to calculate the shortest distance by road from dwellings to a set of everyday services.

To find the shortest distance from a dwelling to a particular service an origin-destination routing algorithm was used within a Geographic Information System (GIS). The algorithm identified the nearest service to a dwelling and plotted the shortest-path route and distance on a map.

We can see an example of this by looking at the map on the right. Point A represents a dwelling from the 2016 Census. Points B and C represent a service. The routing algorithm identifies the nearest service to the dwelling at A, which, in the example is point B, and then plots the shortest-path route and distance between A and B (marked orange on the map).

Drag the swipe bar across the map to see the shortest-path route between the dwelling at Point A and the closest everyday service.

Geography

In this Story Map you can find the distance to everyday services broken down by a number of geographies:

- State
- Administrative Counties
- Electoral Divisions

In the next Chapter you can find out the average distance to a range of services for each County - simply choose a County from the drop down menu at the top right hand corner: [County Level Dashboard](#)

Measuring the distance to everyday services

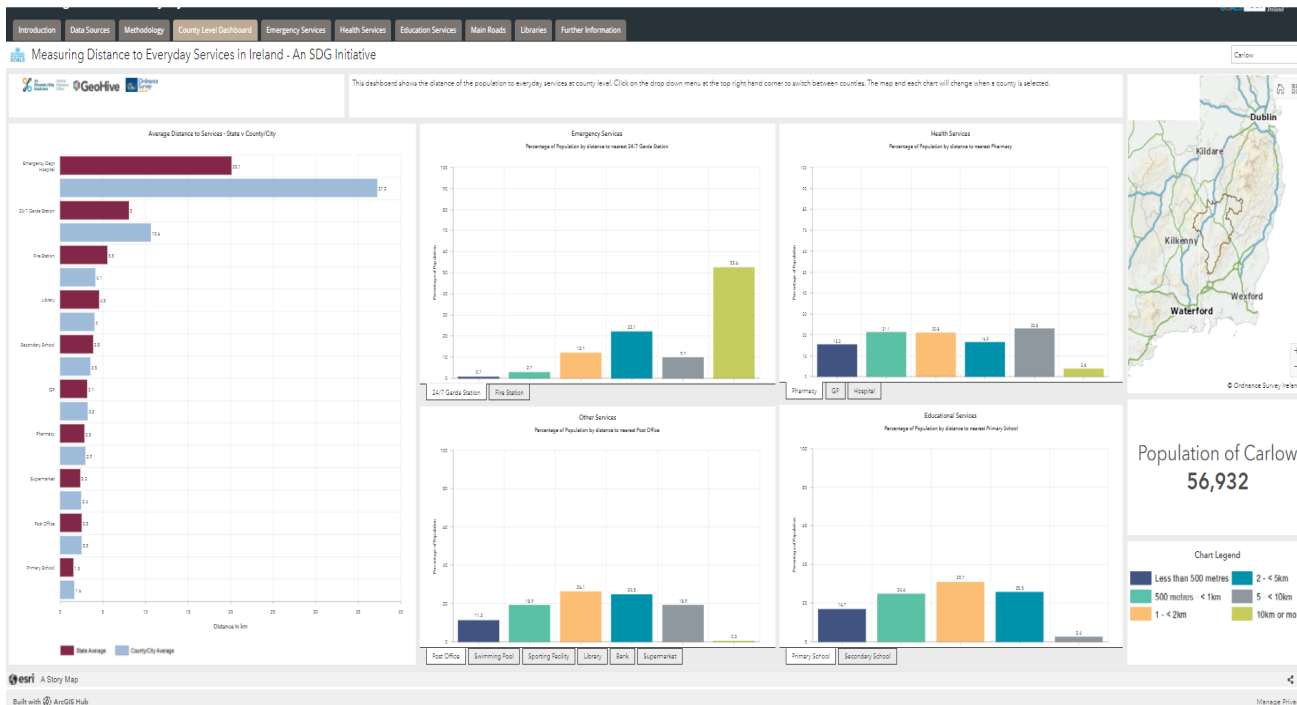
Drag the swipe bar across the map to see the shortest-path route between the dwelling at Point A and the closest everyday service.



Measuring Distance to Everyday Services - 2019



Home Goals Events Data Guidelines Stories & Applications





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SDG - Hub



CSO's SDGs Hub

Embracing the experiences gained from working on the UNSD/Esri research project, the CSO's SDG team has also developed a SDG Hub.

The CSO's Hub is complementary Ireland SDG portal.

To date the CSO has released seven electronic SDG publications, Goals 1-7, with a national focus.

These publication has been very well received across all sections Government and social society. They are designed will inform future Irish Voluntary National Reports (VNRs).

They can be found here:

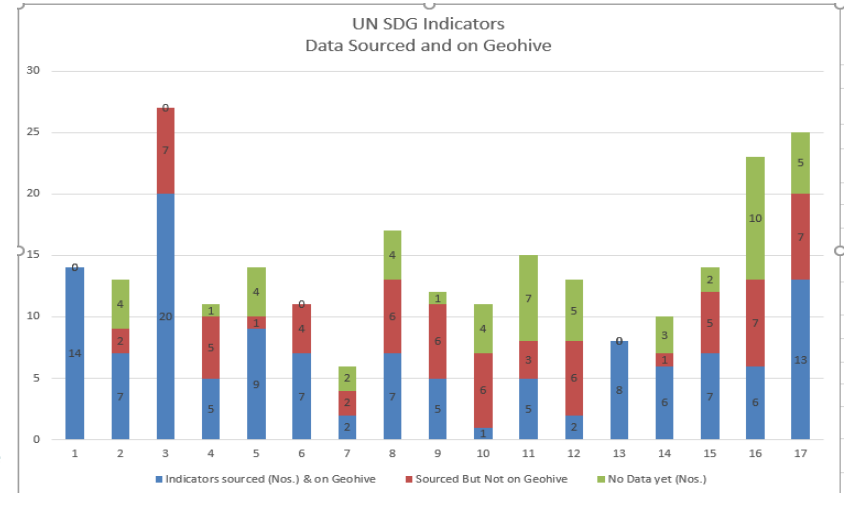
<https://www.cso.ie/en/statistics/unsustainabledevelopmentgoals/>



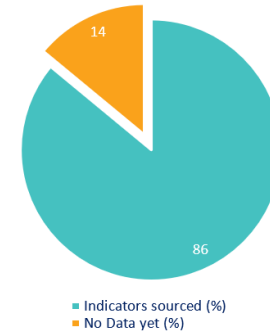
Dashboard – No. Indicators sourced

Goal	Total No. of SDG Indicators	Indicators sourced (Nos.)	No Data yet (Nos.)
Goal 1	14	14	0
Goal 2	13	10	3
Goal 3	27	27	0
Goal 4	11	10	1
Goal 5	14	13	1
Goal 6	11	11	0
Goal 7	6	5	1
Goal 8	17	16	1
Goal 9	12	11	1
Goal 10	11	8	3
Goal 11	15	10	5
Goal 12	13	11	2
Goal 13	8	8	0
Goal 14	10	8	2
Goal 15	14	14	0
Goal 16	23	14	9
Goal 17	25	21	4
Total	244	211	33

Status - 2019



SDG Indicators Sourced



T4 System

- Goals 1 to 8 – Publications
- Goals 9 to 17 ongoing



UN Sustainable Development Goals

Statistical Publications

- > UN SDG's Goal 1 - No Poverty
- > UN SDG's Goal 2 - Zero Hunger
- > UN SDG's Goal 3 - Good Health and Well-Being
- > UN SDG's Goal 4 - Quality Education
- > UN SDG's Goal 5 - Gender Equality
- > UN SDG's Goal 6 - Clean Water and Sanitation
- > UN SDG's Goal 7 - Affordable and Clean Energy

Related Content

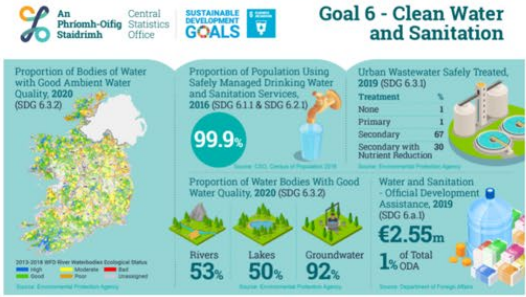
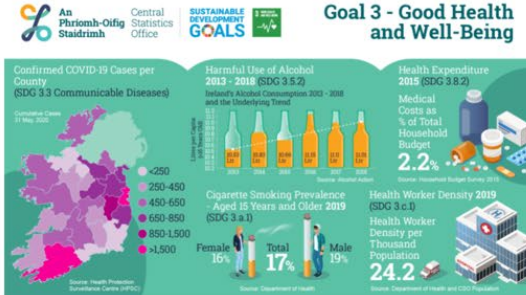
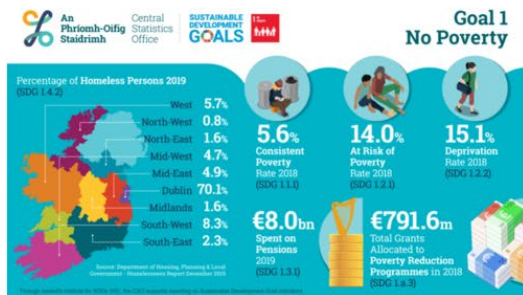
- > A Profile of Ireland's Border Population 2016
- > Measuring Distance to Everyday Services in Ireland
- > Regional SDGs Ireland 2017
- > Mapping a Table of Data with Esri Shapefiles in R

Related Links

- > Ireland's SDG Data Hub



SDG Publications – Goals 1 to 7 (Feb 2020 to Apr 2021)





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Refocus of the Irish SDG team to COVID-19

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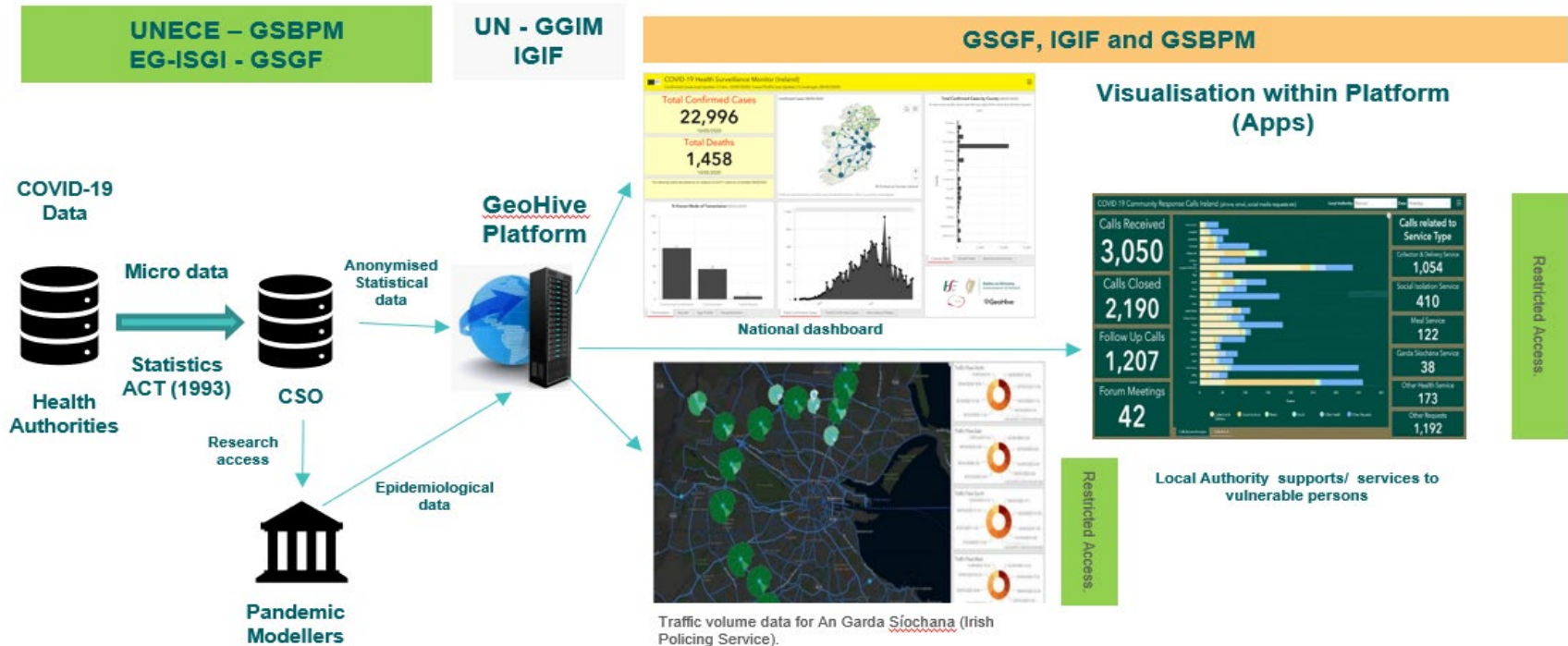
The Office of the Chief Medical Officer (CMO), has formed the Irish Epidemiological Modelling Action Group (IEMAG), to monitor and model the outbreak of COVID-19 in Ireland. The IEMAG report directly to the National Public Health Emergency Team (NPHE).

In response to the Coronavirus disease (COVID-19) outbreak, the Central Statistics Office (CSO) in collaboration with Ordnance Survey Ireland (OSI), the Department of Housing, Planning & Local Government (DHPLG) and the All Island Research Observatory (AIRO) in Maynooth University, along with Esri Ireland as technical partners, rapidly developed a National Covid-19 Data Hub on the GeoHive platform. GeoHive was identified as the State's geospatial data platform in the Public Service Data Strategy 2019 – 2023.

For this particular action this work has been designated as the GeoHive Covid19 Response Coordination Group, (GH-COVID19-RCG). The Group is part of the IEMAG



Ireland's COVID-19 reporting ecosystem



Ireland's COVID-19 Internal Hub

- You have seen an image of the public version of the National Covid-19 Data Hub. The National Covid-19 project partners use best practice methodologies and governance structures to ensure the appropriate overall management of the project and its data.
- There is an internal version of this National Covid-19 Data Hub that contains additional data, some of it sensitive. This internal site is only accessible in a secure manner by authorized individuals.
- Some examples of the data on this internal hub are:
 - Hospital admissions and discharges, by date, age and gender of patients.
 - ICU beds - occupied, by age, gender, dates of admission and discharge of patients, and this data is available for each hospital in Ireland.
 - Infections reported by geography (Census Electoral District (ED) 3,409 geographies), date, age, and gender.
 - Testing, dates of referral, test, lab results. Also the geography, ED, of the individuals tested.
 - Throughput of testing labs by date.
- The CSO has sourced these data from our Health Service Executive through our Statistics Act (1993).

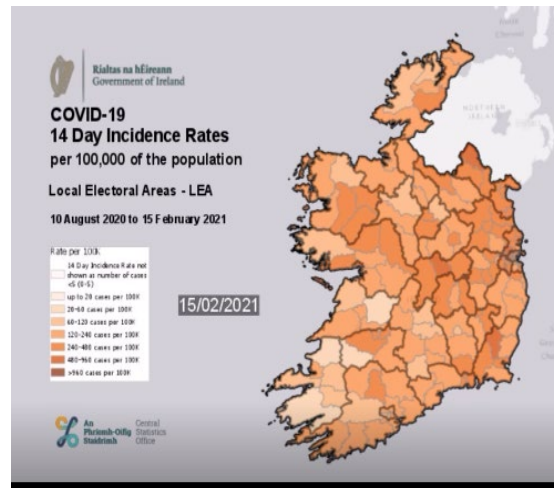
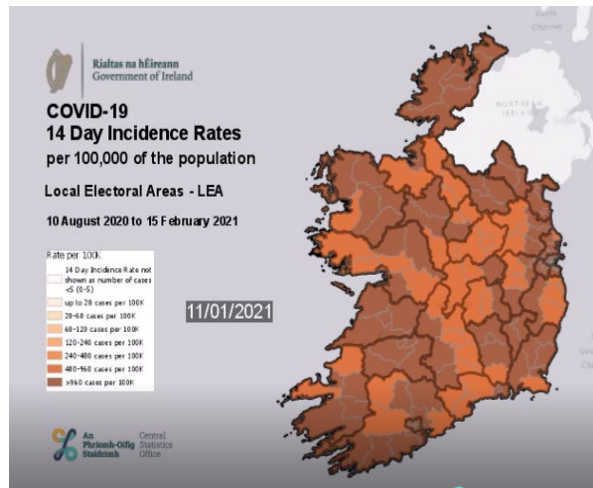
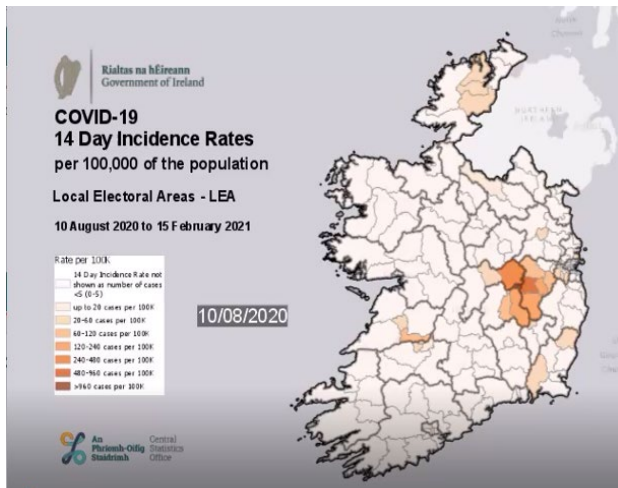


Continuing work

- Deepen relationships with Health data providers.
- Support key national decision-makers with the authoritative geo-statistical data for evidence based decision making to inform Ireland's recovery phase of COVID-19.
- Expand on the volume of key data and visualisation tools (apps).
- Develop, with key national stakeholders, StoryMaps on the National COVID-19 response.
- Develop additional geo-statistical public and internal national dashboards.



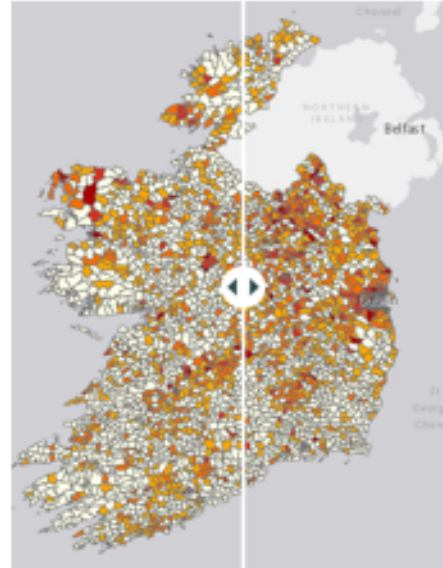
Example of Continuing - Work Animation



Example of Continuing work – Story Map

The CSO has developed a slider story map containing data relating to COVID-19 cases at rates per 100,000 of the population at Electoral District (ED) level, 3,409 geographies

There are 5 maps, and in each map there are 2 sets of data, the map on the left in each of the 5 maps contain data from the 20/06/2020 while the maps on the right contain data from 29/07/2020, 05/08/2020, 12/08/2020, 19/08/2020 and the 26/08/2020 in each map respectively



To view how the data changes from one time period to the next simply pull the arrows at the center of the map to the left or right.

Left map contains data from the 20/06/2020 in each maps while the map on the right contains data from different dates outlined below each map. To view the legend click on the legend icon at the bottom left of the map.

This example refers to data 05/08/2020



Summary and Key Takeaways

- The complementary nature of the UNECE's GSBPM, the EG-ISGI's GSGF and UN-GGIM's IGIF is clearly presented in the Irish SDG and COVID-19 ecosystems.
- The FIS4SDG programme has resulted in the development of a close and successful relationship between the statistical and geospatial communities in Ireland and an associated SDG ecosystem.
- The SDG ecosystem was quickly refocused to measuring and monitoring the COVID-19 outbreak in Ireland and also to support the national response.
- Geostatistical Dashboards, Animations and Story Maps are innovative dissemination channels and are well received by various levels of data users as well as the general public.





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Thank You