

How the Covid-19 crisis drove the publication of Open Data

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2nd December 2020



Rialtas na hÉireann
Government of Ireland

Ireland's COVID-19 Data Hub

COVID-19 Ireland ICU, Hospital & Testing Detailed Profile of Cases Detailed County Statistics Data & Services FAQs

Ireland's COVID-19 Data Hub

National Statistics, Information & Data

The information presented in this site is based on official figures provided by the Health Protection Surveillance Centre (HPSC) and the Health Service Executive (HSE). Datasets, charts and maps will be updated on an on-going basis and in line with newly published data. This site is built using the GeoHive platform, Ireland's Geospatial Data Hub.

Confirmed Headline Figures 30/11/2020
Data last Updated

Total Confirmed Cases (HPS...)	Total Deaths (HPSC)	Latest Daily Cases (HPSC)	Latest Daily Deaths (HPSC)
72,544	2,053	306	1

Ireland's COVID-19 Data Hub - Detailed Profile of Cases

The statistics and graphs in this section are built using confirmed figures provided by the Health Protection Surveillance Centre (HPSC), and are updated following official release of new data.

30/11/2020 28/11/2020
Data last Updated Data is relevant up to midnight

Breakdown by Age & Gender

Statistics broken down by age & gender relate to latest available figures from HPSC, and are a minimum of two days behind current date. These figures are updated daily.

Total Confirmed Cases - Gender Profile

Gender	Total Confirmed Cases
Male	34,021
Female	38,184
Unknown	33

Data last Updated: Monday, November 30, 2020
Data relevant up to midnight: Saturday, November 28, 2020

Total Confirmed Cases - Age Profile

Age Group	Total Confirmed Cases
<1	869
1 to 4	1,000
5 to 14	4,520
15 to 24	12,646
25 to 34	12,142
35 to 44	11,332
45 to 54	10,924
55 to 64	7,737
65+	10,998

Data last Updated: Monday, November 30, 2020
Data relevant up to midnight: Saturday, November 28, 2020



**An Roinn Caiteachais
Phoiblí agus Athchóirithe**
Department of Public
Expenditure and Reform



**An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreacht**
Department of Housing,
Local Government and Heritage



An Roinn Sláinte
Department of Health



Context: Public Sector Data Strategy



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PUBLIC SERVICE DATA STRATEGY 2019 - 2023

Interoperability Platform An API-led Interoperability Platform based on a Service Oriented Architecture (SOA) will be developed to enable PSBs to cooperate, share and reuse data and services in an effective, secure and consistent way	Analytics A structured approach to data analytics will be encouraged to promote the value of data to support evidence-based policy-making
Legislation Sharing of personal data will be underpinned by clear and explicit legislation and governance to help foster trust between citizens and businesses, and Government	Base Registries Enabling data to be reused, and reduce the need for citizens and businesses to provide the same information to PSBs again and again
Governance Standards and good governance processes will ensure that data is managed appropriately and consistently across all PSBs, maintaining trust with Government	Trusted Identifiers Trusted identifiers will enable data to be linked across data holdings
Privacy Security and data protection measures to identify and protect citizen and business data, for example privacy-by-design and privacy-by-default will be adopted	Transparency Transparency will be delivered through citizen accessible data-sharing agreements, a Data Portal for citizens to view personal data that Government holds, well-architected logging solutions, and the publication of open datasets
	Discovery Promote awareness and facilitate the discovery of data and services available for reuse

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Statement of Strategy 2019 - 2021

www.osi.ie

Efficient & Effective Production	Trusted Geospatial Services	Collaboration & Partnerships	Leadership & Communication	Transparent & Accountable
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Context: SDGs and Open Data



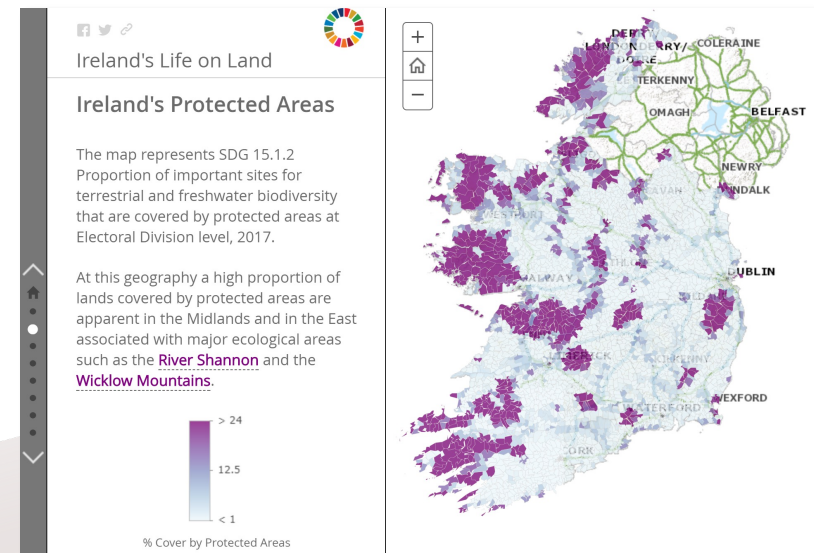
An Roinn Comhshaoil,
Aeráide agus Cumarsáide
Department of the Environment,
Climate and Communications

Geospatial Data and GeoHive Platform



The screenshot shows the Government of Ireland website. At the top, there is a navigation bar with a menu icon, a search bar, and a 'Sign In' link. Below this is the Government of Ireland logo and a navigation menu with links for Home, Goals, Events, Data, Guidelines, and Apps & Maps. The main content area features a large graphic with the text '17 Goals to Transform our World' and 'Highlighting Ireland's progress towards achieving the United Nations Sustainable Development Goals'. The graphic includes a circular chart representing the 17 SDGs and various icons related to sustainability, such as a house, a factory, a sheep, a tree, and a person on a bicycle.

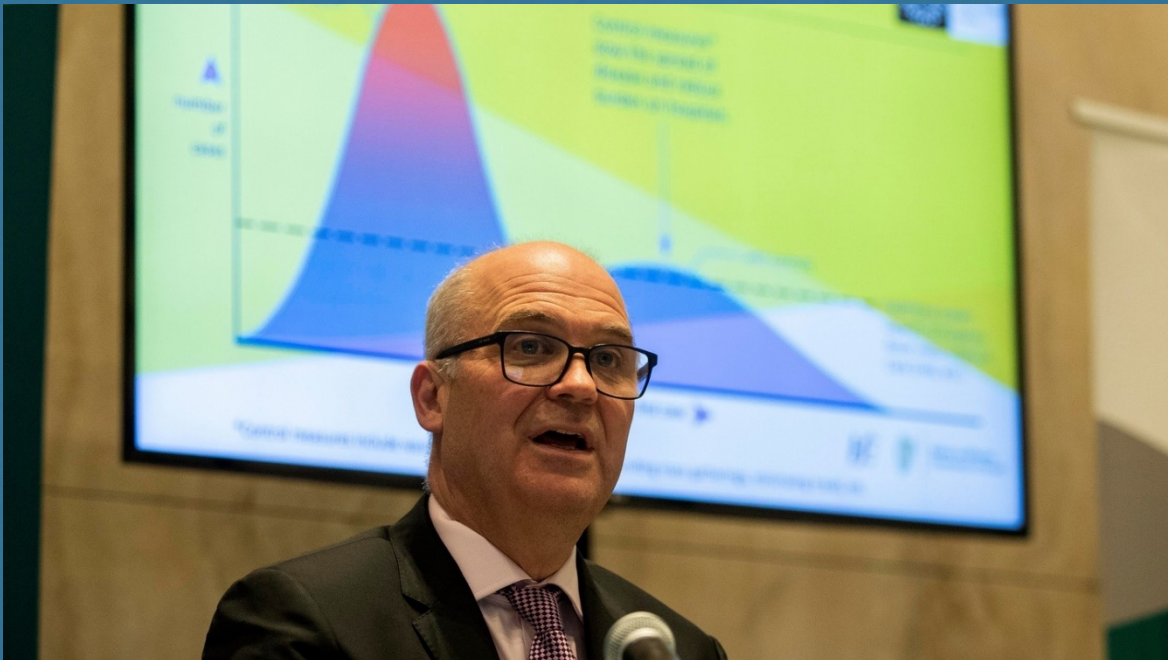
Statistics and Data Governance





Coronavirus **COVID-19**

▲ Public Health Advice



Dr. Tony Holohan – Chief Medical Officer (CMO)

Refocus SDGs Group to GeoHive COVID-19 Response Co-ordination Group



An Roinn Tithíochta, Pleanála agus Rialtais Áitiúil
Department of Housing, Planning and Local Government

Service Level Agreement



All-Island Research Observatory
An tIonad Breathnaithe um Thaighde Uile-Éireann

Memorandum of Understanding



Memorandum of Understanding



An Phríomh-Oifig Staidrimh
Central Statistics Office

Framework Agreement



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GeoHive COVID-19 Group - Purpose & Vision

Purpose

- To coordinate the technical, data, policy, and financial activities related to providing key data and tools, via GeoHive the State's geospatial data hub, to inform Ireland's response to the COVID-19 outbreak

Vision

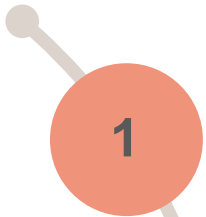
- To provide key data and tools to inform Ireland's operational intelligence and situational awareness efforts in response to the COVID-19 outbreak



Terms of Reference, March 2020

GeoHive Covid-19 Response Coordination Group

Name	GeoHive Covid-19 Response Coordination Group
Membership	<p>The membership of this group consists of the following organisations:</p> <ul style="list-style-type: none"> • Ordnance Survey Ireland (OSi) • The Central Statistics Office (CSO) • The Department of Housing, Planning, and Local Government (DHPLG) • the All-Island Research Observatory (AIRO) • Esri Ireland. <p>The associated levels of responsibility and accountability are defined in a separate RASCI matrix.</p>
Goals for the Group	<p>The goals for this group are to:</p> <ol style="list-style-type: none"> 1. Build a participation network that facilitates the “collect once, use many times” philosophy of the Public Services Data Strategy for geo-statistical data in the response to the Covid-19 outbreak. 2. Introduce geospatial and statistical data governance procedures that focus on reducing/removing data duplication. 3. Maximise the use of the State’s geospatial hub (GeoHive) through appropriate data collection and data visualisation.
Group Working Methods	<p>The GH-COVID19-RCG meets on a daily basis with all meetings held using remote video/phone conferencing to maintain social distancing.</p> <p>The Group has established a:</p> <ul style="list-style-type: none"> • GeoHive Covid-19 response platform with public, private and secure virtual data room capabilities • Geo-statistical data governance and management sub-group to provide expertise in support of the Government’s Covid-19 response • GeoHive technical architecture sub-group to provide the expertise in support the Government’s Covid-19 response.
Group Documentation	<p>A Terms of Reference (TOR), Data Governance and Stakeholder Relationship mapping is in place to manage the governance and co-ordination of the stakeholders involved and communication channels.</p> <p>A shared programme repository has been established.</p>



1 To build a participation network that facilitates the **“collect once, use many times” philosophy** of the Public Service Data Strategy in the response to the COVID-19 outbreak



2 To introduce geospatial and statistical data governance procedures that focus on reducing/removing data duplication.



3 To maximise the use of the GeoHive through appropriate data collection and data visualisation



Data, infrastructure and processes

The Group has established:

- ✓ GeoHive COVID-19 response platform with public/private/secure virtual data hubs
- ✓ Geo-statistical data governance and management sub-group to provide expertise in support of the national COVID-19 response
- ✓ GeoHive technical architecture sub-group to provide the expertise in support of the national COVID-19 response
- ✓ Various data led initiatives - which are summarised in the following slides





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1

Ireland's COVID-19 Data Hub

National Statistics, Information

The information presented in this site is based on data from the Health Protection Surveillance Centre (HPSC) and the Health Service Executive (HSE). Data is updated in real time with newly published data. This site is built using

Confirmed Headline Figures

Click for more information

Total Confirmed Cases (HPSC...)

Total Deaths (HPSC)

Latest Daily Cases (HPSC)

Latest Daily Deaths (HPSC)

The screenshot shows the Data.gov.ie website interface. At the top, there is a navigation bar with links for Home, Datasets, Publishers, Suggest Data, Showcases, Contact, About, More, and EN/GA. Below the navigation bar is a search bar with the text "Search Datasets...". To the right of the search bar is a red button with a magnifying glass icon. Below the search bar, there is a section titled "IRELAND'S OPEN DATA PORTAL" with the subtitle "Promoting innovation and transparency through the publication of Irish Public Sector data in open, free and reusable formats." and a red button labeled "EXPLORE DATASETS".

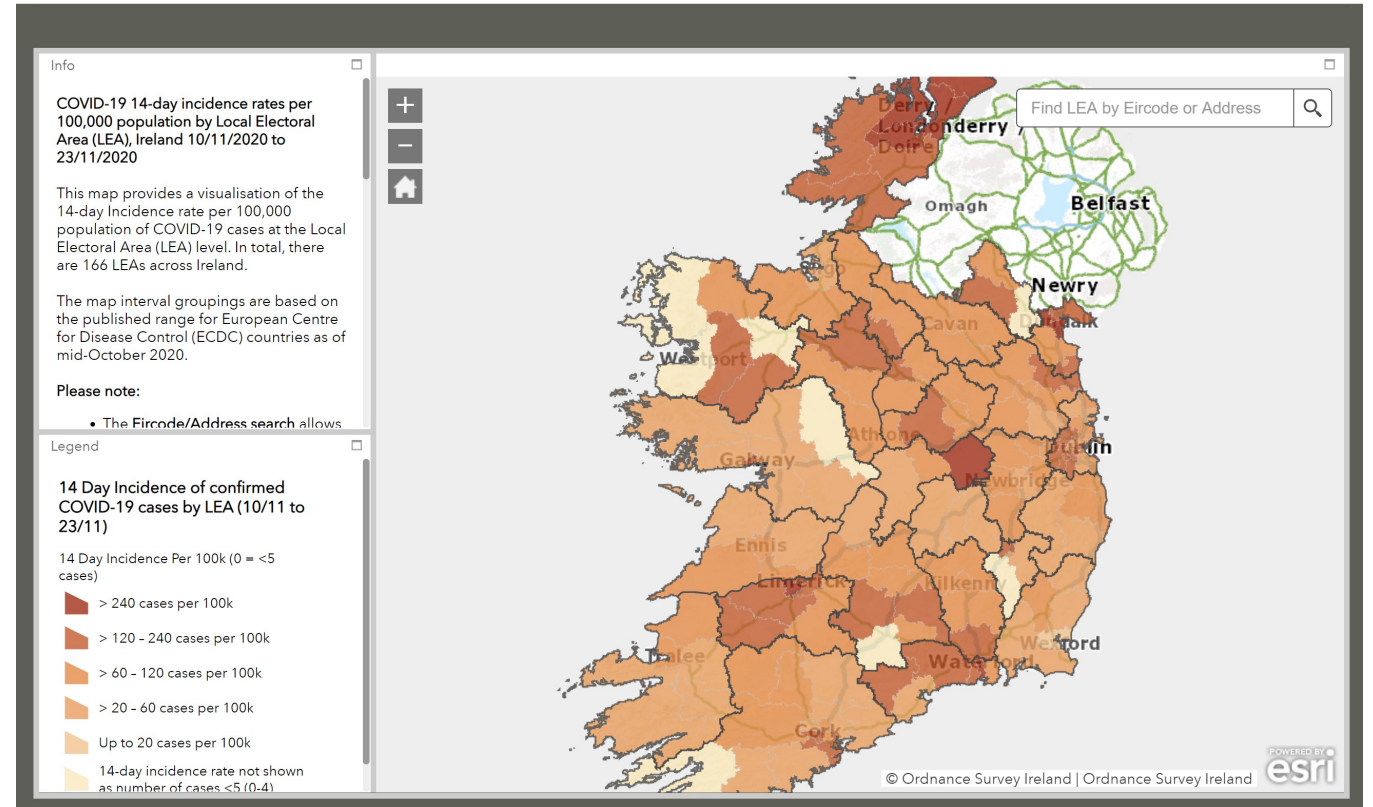
In the center of the page, there is a yellow banner with the text "COVID-19 Resources" and a red button labeled "COVID-19 DATA HUB & MORE" and another red button labeled "SHOW DATASETS". To the left of the banner, there are two statistics: "10093 Datasets" and "117 Publishers".

Below the banner, there is a grid of 12 categories, each with an icon and a title: Agriculture, Fisheries, Forestry & Food; Arts, Culture and Heritage; Justice, Legal System and Public Safety; Economy and Finance; Education and Sport; Energy; Environment; Government and Public Sector; Health; Housing and Zoning; Population and Society; Science and Technology; and Regions and Cities.

At the bottom of the page, there is a blue banner with the text "Subscribe to our mailing list*" and a red button labeled "Sign up". To the right of the banner is a text input field with the placeholder text "Enter your email to signup".

2

Over
90
 million
 views since mid June



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 Department of Public
 Expenditure and Reform



**An Roinn Tithíochta,
 Rialtais Áitiúil agus Oidhreacht**
 Department of Housing,
 Local Government and Heritage



An Roinn Sláinte
 Department of Health





Total Confirmed Cases

22,996

10/05/2020

Total Deaths

1,458

10/05/2020

The following charts are based on an analysis of 22,671 cases

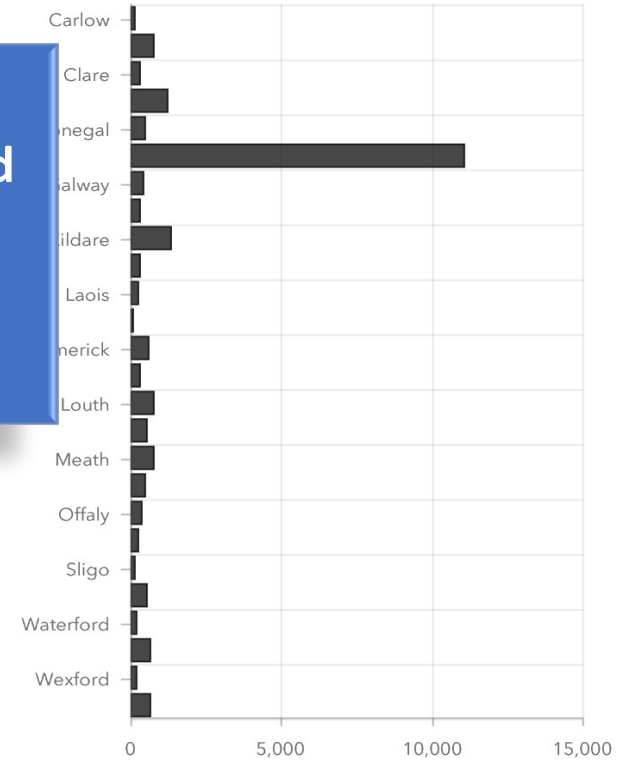
Publically available Health Surveillance Monitor Dashboard for the Department of Health. Updated daily.

Confirmed Cases: 08/05/2020



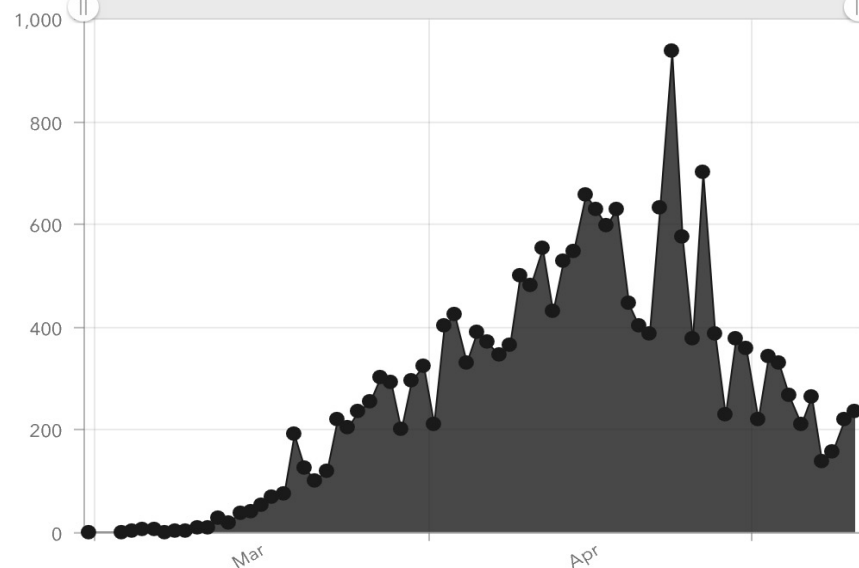
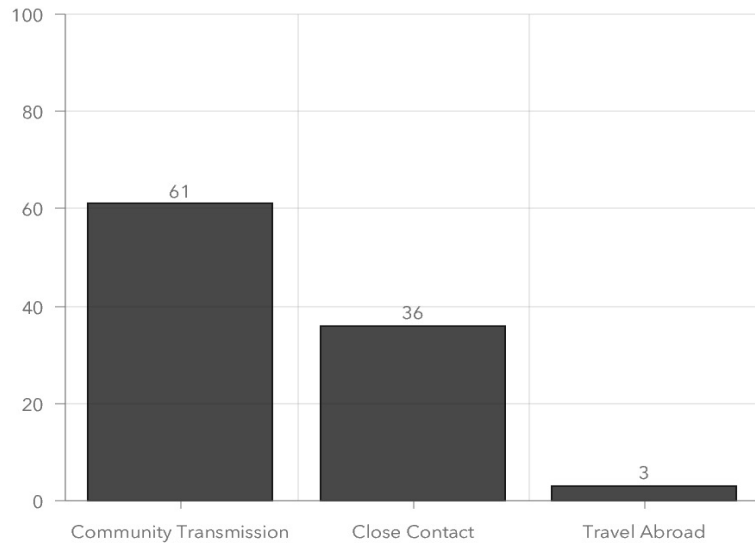
Total Confirmed Cases by County (08/05/2020)

To see more results, hover over the top right of this chart and click the expand icon.



Points are representative of counties and not specific locations. Click on a point for county figures.

% Known Mode of Transmission (08/05/2020)



County Stats | Global Stats | Advice and Sources

Transmission | Gender | Age Profile | Hospitalisation

Daily Confirmed Cases | Total Confirmed Cases | International Rates



Total Confirmed Cases

22,996

10/05/2020

Total Deaths

1,458

10/05/2020

The following charts are based on an analysis of 22,671 cases as of m

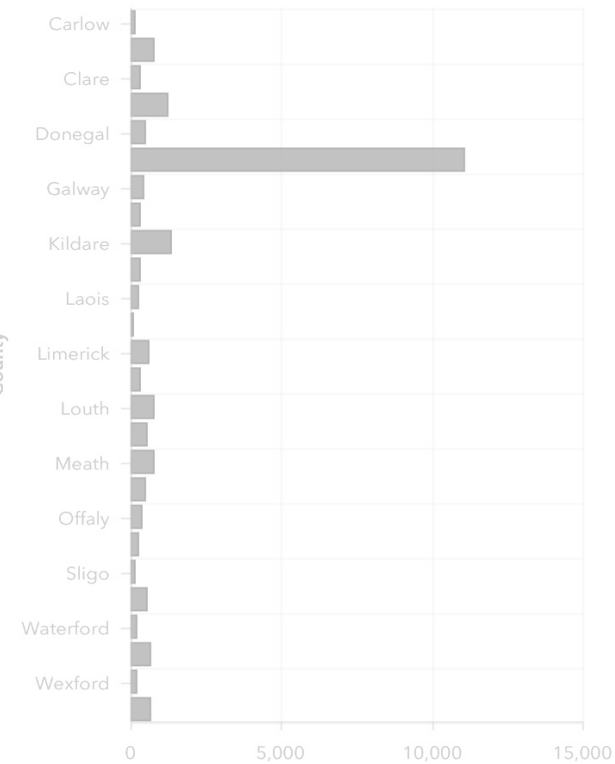
Confirmed Cases: 08/05/2020



National Public Health Emergency Team (NPHET) & Chief Medical Officer (CMO) COVID-19 Geospatial Data Hub.

Total Confirmed Cases by County (08/05/2020)

To see more results, hover over the top right of this chart and click the expand icon.



GeoHive COVID-19 Experimental Area

NPHET/CMO COVID-19 Geospatial Data Hub

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Coronavirus COVID-19
Public Health Advice

Everyone stay at home.
Everyone has the power to **Stop COVID-19.**

An information portal for the Department of Health and Health Service Executive (HSE) developed by Ordnance Survey Ireland (OSI), the Central Statistics Office (CSO) and AIRO at Maynooth University.

Key COVID-19 Statistics

Daily Statistics - The following figures update daily at approximately 19.00

Total Confirmed	Daily Confirmed	Total Deaths	Daily Deaths
25,628	17	1,746	0

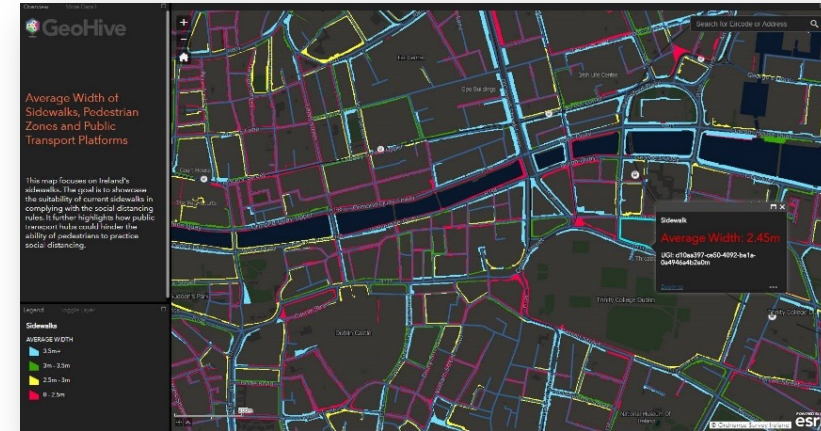
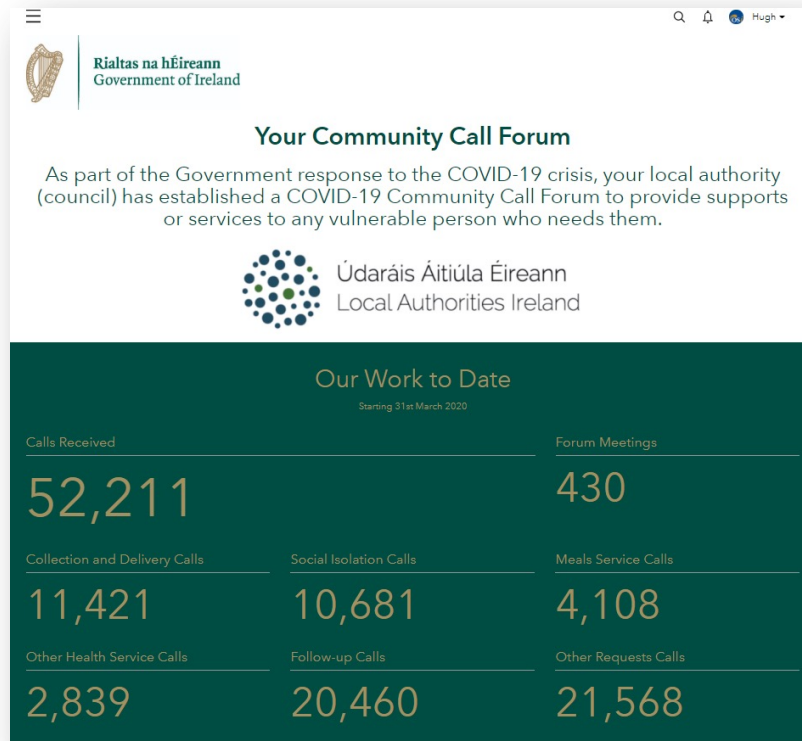
Community Transmission | Close Contact | Travel Abroad

[County Stats](#) | [Global Stats](#) | [Advice and Sources](#)



[Transmission](#) | [Gender](#) | [Age Profile](#) | [Hospitalisation](#) | [Daily Confirmed Cases](#) | [Total Confirmed Cases](#) | [International Rates](#)

Local Authority Dashboards & An Garda Síochána Data Hub



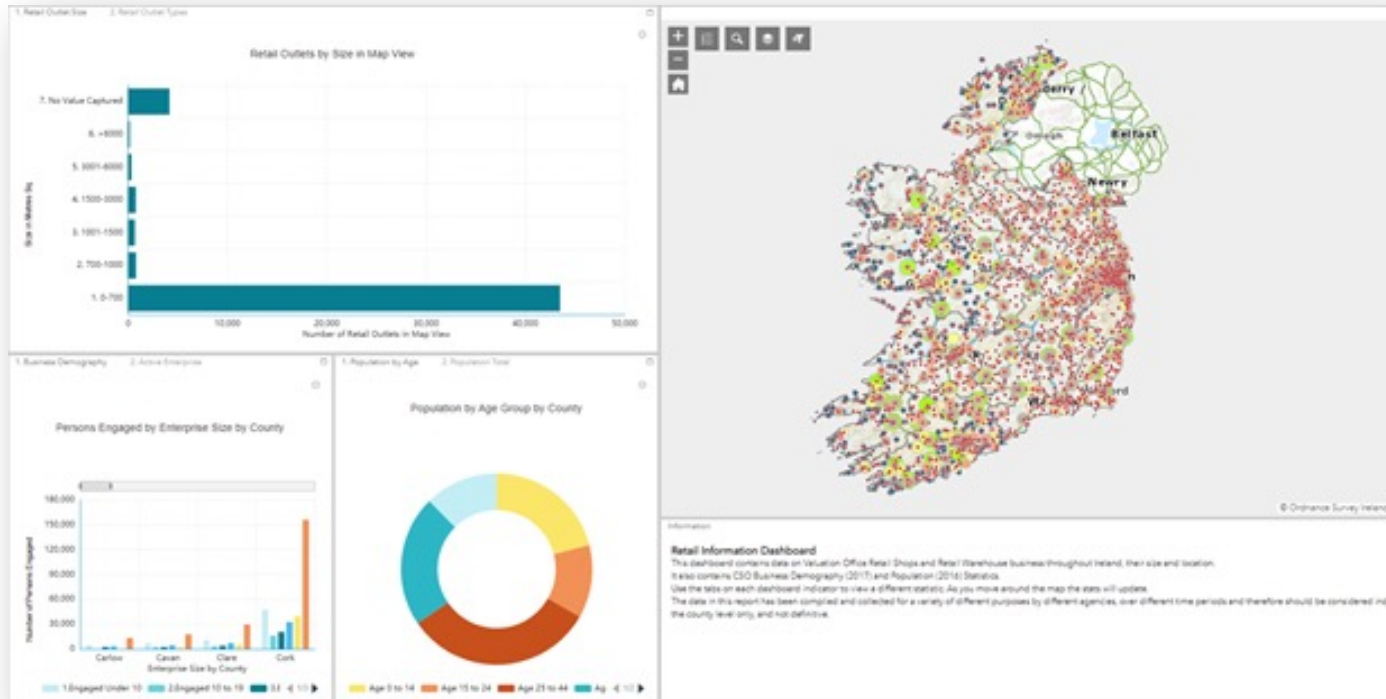
Pavement Width, Public Transport & Retails Locations

Public and secure dashboards;
updated daily.
Publically available for use by all
Local Authorities with a daily data
supply.

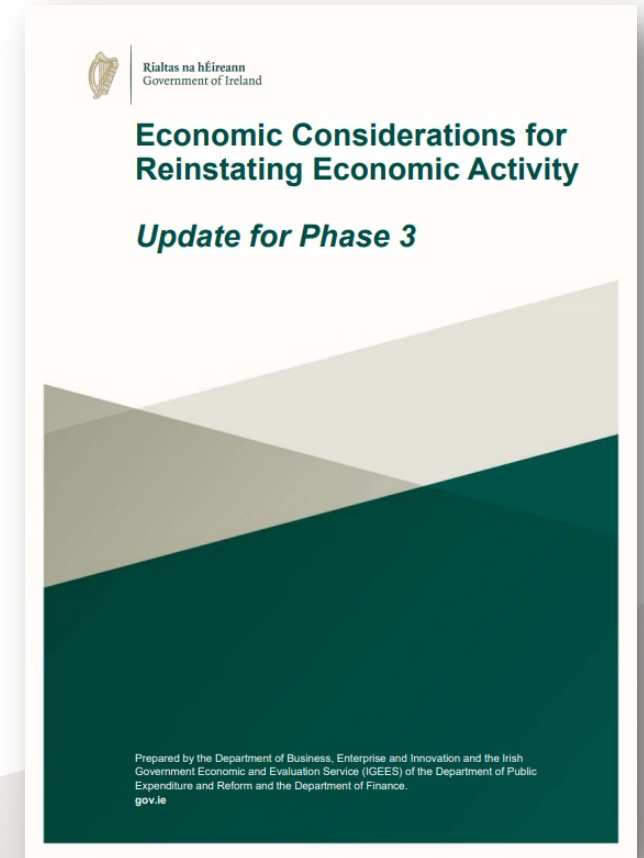


Secure access for all
Senior Garda Personnel
and Garda Control Room
for traffic mobility and
trend analysis.

Dept. of An Taoiseach business dashboards / reports

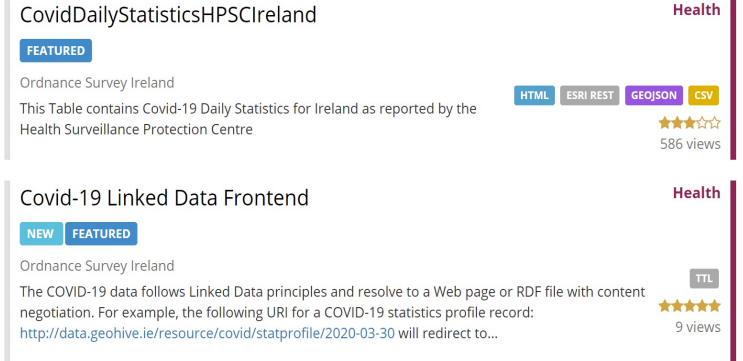


Map-based dashboard and report that displays business and retail information, showing the classification, density and size of business premises by location.



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5* Linked Open COVID-19 data

GeoHive service	Apps	Usage
<p>Daily Open Data update to data.gov.ie as 3-star and 5-star linked open data.</p> <p>https://data.gov.ie/dataset?q=covid&sort=score+desc%2C+metadata_created+desc</p>	 <p>CovidDailyStatisticsHPSCIreland</p> <p>FEATURED</p> <p>Ordnance Survey Ireland</p> <p>This Table contains Covid-19 Daily Statistics for Ireland as reported by the Health Surveillance Protection Centre</p> <p>HTML ESRI REST GEOJSON CSV</p> <p>★★★★★ 586 views</p> <p>Health</p> <p>Covid-19 Linked Data Frontend</p> <p>NEW FEATURED</p> <p>Ordnance Survey Ireland</p> <p>The COVID-19 data follows Linked Data principles and resolve to a Web page or RDF file with content negotiation. For example, the following URI for a COVID-19 statistics profile record: http://data.geohive.ie/resource/covid/statprofile/2020-03-30 will redirect to...</p> <p>TTL</p> <p>★★★★★ 9 views</p> <p>Health</p>	<p>Updated daily.</p> <p>Between 3k and 13k hits per day for the 6 services.</p>

Key takeaways

- **Geospatial data and apps** have played a key role in revealing **insights, patterns and trends** as part of the Ireland's COVID-19 response.
- Geospatial and statistical **data governance** removed duplication and enabled sharing.
- Rapid response due to **re-use of existing platform**, however there was still a significant data management overhead due to various standards used across data sources.
- Resulted in the real understanding of the **value that geospatial data and infrastructure** plays in enabling data sharing, collaboration & analysis to gain insights and to manage.
- **Significant demand for data** from citizens, academia and others.



Conclusions

- **It's all about the data.** Does it exist, is it up to date, is it accessible, who knows about it?
- **Collaboration is key.** It is easier to build quickly on existing relationships/platforms than to build new ones.
- **The race to real time is complex.** The data we use is from the past, the problems we are solving are in the future.
- **A single source of truth is essential.** Not having to debate the data allows more time to debate the policy.





Thank you

