

Open Data in action

*Initiatives during the initial stage
of the COVID-19 pandemic*

March 2021






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The open government data (OGD) initiatives discussed in this report are self-reported by individuals and countries. They are presented in this report as accurately as possible, based the information collected through an open call for evidence. The examples covered throughout this report are included as observations, without any judgement on their merit and success. The OECD and The GovLab recognize that there are may successful COVID-19 related OGD initiatives across the globe during and after the data collection period not covered in this report. Some collected initiatives are presented in the text to illustrate their relevance against the analytical framework of this report.

Cover from [Samuel Rodriguez](#) and illustration on page 7 from [Catherine Cordasco](#), both submitted for United Nations Global Call Out To Creatives - help stop the spread of COVID-19 on [Unsplash](#).



The COVID-19 pandemic has increased the demand for access to timely, relevant, and quality data. This demand has been driven by several needs: taking informed policy actions quickly, improving communication on the current state of play, carrying out scientific analysis of a dynamic threat, understanding its social and economic impact, and enabling civil society oversight and reporting. Based on an open call for evidence, this report assesses how open government data (OGD) was used to react and respond to the COVID-19 pandemic during initial stage of the crisis (March-July 2020). It also seeks to transform lessons learned into considerations for policy makers on how to improve OGD policies to better prepare for future shocks.



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Introduction.



Governments across the world have been at the forefront of responding to the COVID-19 pandemic. The wide-ranging health, social and economic impact of the pandemic has demonstrated the need for governments to be resilient, and to build the right digital and data infrastructure to respond and mitigate its consequences, today and in the future (OECD, 2020₍₁₎; OECD, 2020₍₂₎).

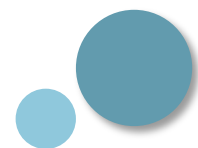
In the context of this unprecedented situation, access to data and information is essential. The pandemic created a surge in the demand for timely, relevant, and accessible government data, which demonstrated the relevance of open data policies. On April 14th, 2020, the World Health Organization (2020₍₃₎) expressed the need for open data to support policies that seek to address COVID-19, making a call to governments on “facilitating open data access and information sharing.” A [related call for action](#) published on March 16th, 2020 and signed by 477 data practitioners similarly urged the development of “the data infrastructure and ecosystem we need to tackle pandemics and other dynamic societal and environmental threats.”¹

According to the OECD, OGD refers to non-discriminatory data access and sharing arrangements, where data is machine readable and can be accessed and shared, free of charge, and used by anyone for any purpose subject, at most, to requirements that preserve integrity, provenance, attribution, and openness.

The potential benefits of providing government data as open data range from more evidence-informed decision-making; support for research; citizen engagement; innovation by the private sector and of public services; greater transparency and accountability of government interventions. For governments to identify, process and share timely and relevant data, public sector data governance is fundamental. The crisis has shown the need for equipping public sector organisations and public servants with the right tools, infrastructure, policies, collaboration mechanisms, leadership, regulations and processes to enable consistent, efficient and ethical use of data (Emilsson et al., 2020₍₄₎).

Objective

Given the efforts to release COVID-19-related data as open data and in order to improve future policies, it is necessary to understand how these data were used by communities, organisations and individuals during the initial stage of the COVID-19 pandemic. For this purpose, the OECD collaborated with The GovLab to identify and analyse a set of OGD initiatives in place between March-July 2020.



Key findings.

Governments were active in releasing and re-using OGD.

During the initial stage of the COVID-19 pandemic, many governments were active in promoting open government data (OGD), both in terms of releasing data and re-using them to build different types of data products.

OGD was important for communication efforts.

Despite its significant potential for crisis response, there is limited evidence that OGD initiatives drove concrete action beyond public communication efforts during the COVID-19 pandemic. Evidence indicates that many of these projects were data repositories or dashboards, with data analysis conducted most often in the form of data visualisations such as maps or charts.

Public health was the main priority.

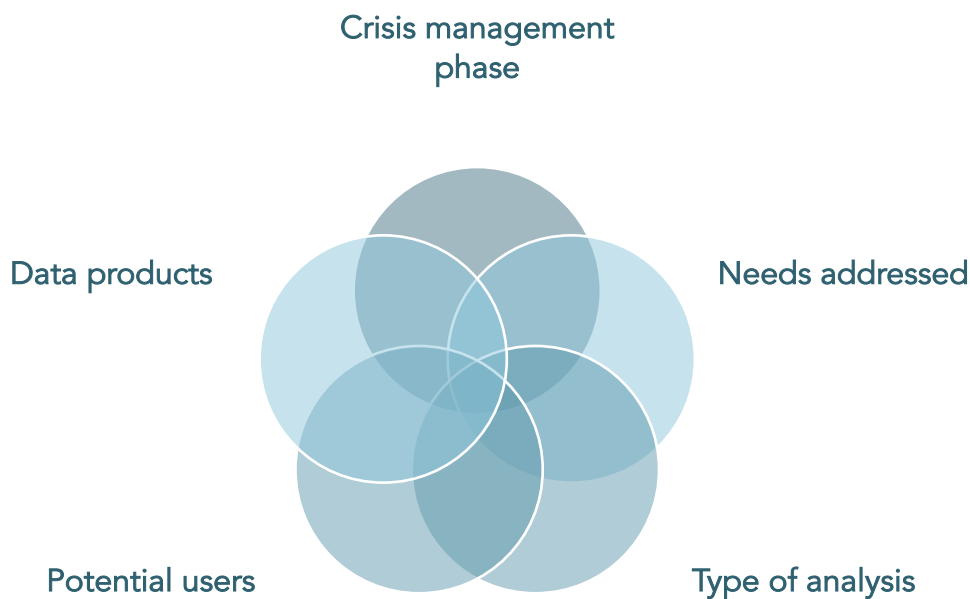
Most activities targeted public health: almost three-fourths of all OGD projects addressed health communications and informative charts rather than pressing economic or social needs, with a predominant emphasis on providing situational awareness rather than assessing or predicting impact.

Focus was on response, not recovery.

In line with the large focus on health needs and situational awareness, a large majority of initiatives during the initial stage of the pandemic concentrated primarily on immediate response. Few initiatives targeted recovery and reform stages.

The results indicate that there has been a missed opportunity to **use OGD to address the multi-dimensional implications of the COVID-19 pandemic with more sophisticated products or services** during the initial stages of this lasting crisis. They also suggest that governments were not fully prepared or lacked the capacity to release relevant, high-quality datasets with the speed and quality necessary that can help address the crisis. Overall, the findings demonstrate that there are several policy challenges for governments to enable OGD re-use with high impact.

Analytical framework.



Source: OECD and The GovLab

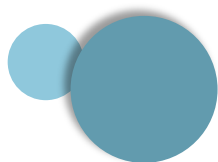
To understand the role of OGD initiatives related to the pandemic, the OECD and The GovLab launched an open call for evidence in April 2020 (OECD, 2020[4]) on social media and among their respective networks of experts¹. Over the course of three months, the call for action collected information on 85 OGD initiatives, while 76 initiatives were identified as meeting the established criteria and subsequently analysed against the structure of analysis.

Although insights can be gleaned from this sample, it is important to note that the insights are based on a small sample under a short time frame, between March 2020 and July 2020. Since then, additional, relevant OGD initiatives have surfaced, including those relating to recovery and vaccination efforts. Second, the sorting of the initiatives was based on the interpretation of available information, and thus, ultimately, the motives of some of the projects had to be inferred.

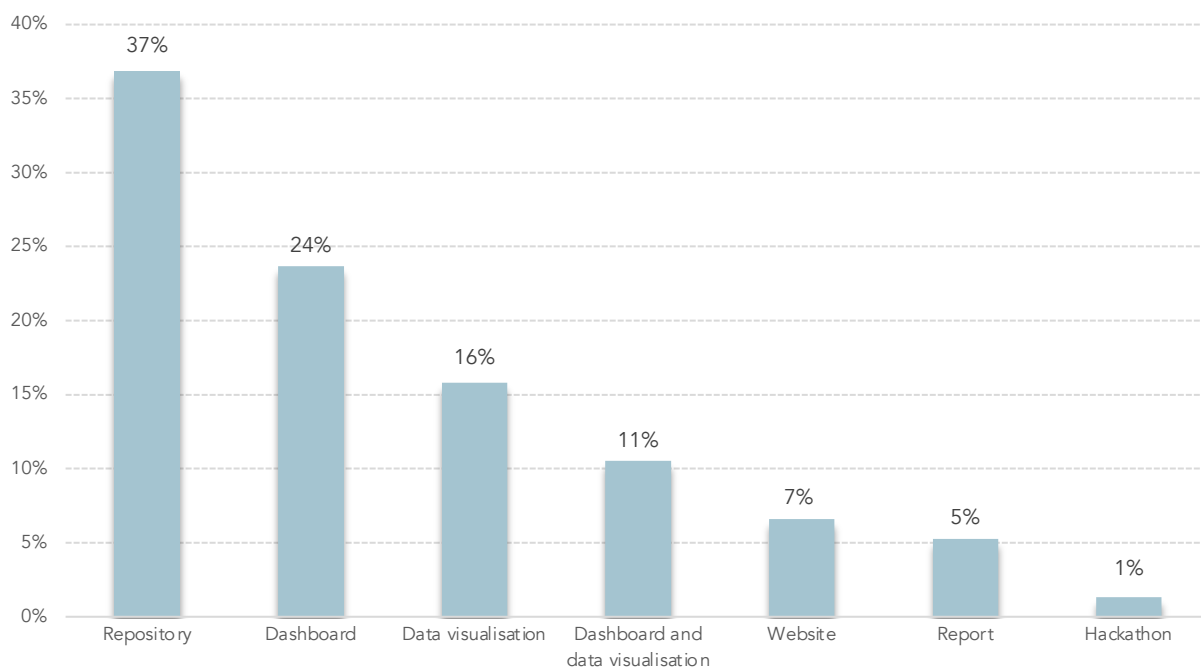
The initiatives were sorted and analysed against an analytical framework composed of five inter-related elements.

- **Data products** – Identifies the activities and outputs – products - produced using OGD.
- **Needs addressed** – Refers to the broader societal issues which the initiatives are targeting and contributing to support.
- **Type of analysis** – Provides an explanation of the type of question the data project seeks to answer.
- **Potential users** – Identifies the most potential user of the identified data product.
- **Crisis management phase** – Refers to which of the four phases of COVID-19 crisis management the project seeks to address.

¹ Relevant examples and evidence were collected using an open consultation via the OECD's website and social media (<https://oe.cd/ogd-covid19>) as well as The GovLab's Data4COVID19 repository (<https://list.data4covid19.org/>). The public was encouraged to provide information regarding projects that used OGD to address some aspect of the COVID-19 pandemic. Required information included project title, country of origin, start date, organisations involved, datasets used, topic addressed, and pandemic phase. During the data collection process, both the OECD and The GovLab teams assessed the relevance and pertinence of these examples according to the typologies and variables presented in this analysis. For further details Annex A.



Data products.



Source: OECD and The GovLab

Data repositories

In the initial stage of the pandemic, various data products were developed using OGD². Data repositories (online locations that stores and makes data available) appeared most frequently in the sample, covering more than one-third of the collected initiatives. One such initiative is the government of Scotland's daily release of COVID-19-related public health data in downloadable spreadsheets, including the number of people tested, the number of positive and negative test results, and the number of fatalities. This is provided as a complement to the [Public Health Scotland data dashboard](#).

Data dashboards

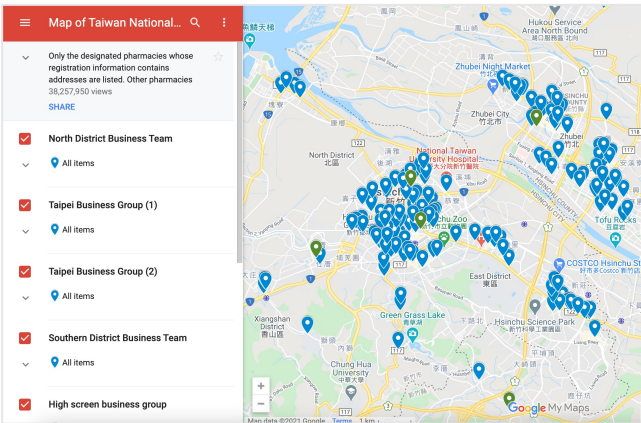
Interactive dashboards were the second most-produced type of output. Published jointly by governments in collaboration with partners (such as civil society and academia), by national or local governments, or by private sector firms, almost one in four initiatives collected were dashboards.

For example, the government of Ireland, in partnership with the All-Island Research Observatory at Maynooth University, released a dashboard presenting relevant figures and evidence to monitor the spread of the COVID-19 virus across the country, based on COVID-19 cases as well as georeferenced data.

Data visualisations

Data visualisations, which seek to represent complex data in an easy-to-understand format such as a map or chart, were also prevalent in the sample. Across these initiatives, visualizations sought to inform citizens and decision makers on topics such as the location, capacity, hours, and supplies available at various health facilities. The [Government of Taiwan's map of mask availability](#) was one notable example. Similarly, the city of Issy-les-Moulineaux in France provided a map visualization of local businesses that offered home delivery services through its open data platform.

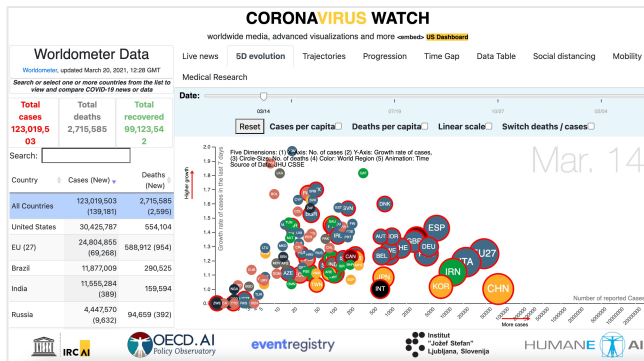
² Data Products is equivalent to the typology Activities and Outputs in The GovLab's data taxonomy.



Map created using open location data of designated pharmacies selling masks in Taiwan.

Hybrid products

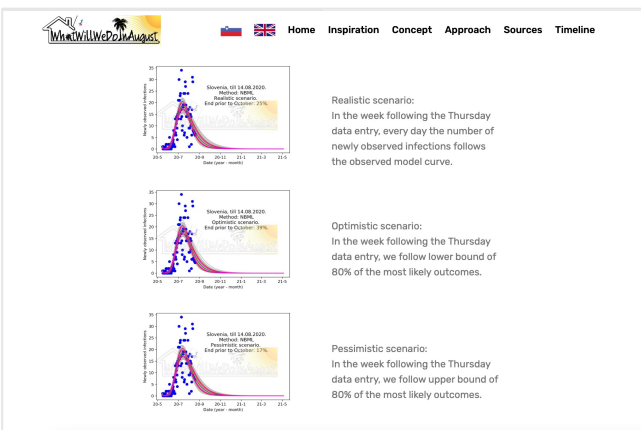
Some of the initiatives collected took a hybrid approach, documenting information through various formats. The [Corona Virus Media Watch](#) initiative is an example of this model. Spearheaded by the International Center for Artificial Intelligence (IRCAI) at the Jožef Štefan Institute, it provides information on emerging trends related to COVID-19 around the world in the forms of maps, visualisations of the disease status and dashboards. Presented as a world map, updated in near-real time, it displays the epidemic's development around the world in a five-variable visualisation and tracks the number of active and close cases through dashboards.



The Corona Virus Media Watch initiative

Websites and reports

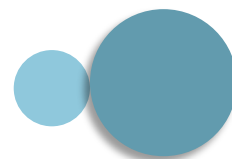
Other initiatives made use of OGD in building dedicated websites to raise public awareness. This included the website in Slovenia [What Will We Do in August?](#), which informed people about health situation and encouraged them to follow international public health guidelines. The sample also includes a few static reports published to inform institutional decision makers and the research community. In New Zealand, for example, the report "Modelling of COVID-19 response options" used OGD from Stats NZ to inform the country's response strategy and model the impacts of various decisions, such as loosening lockdown restrictions.



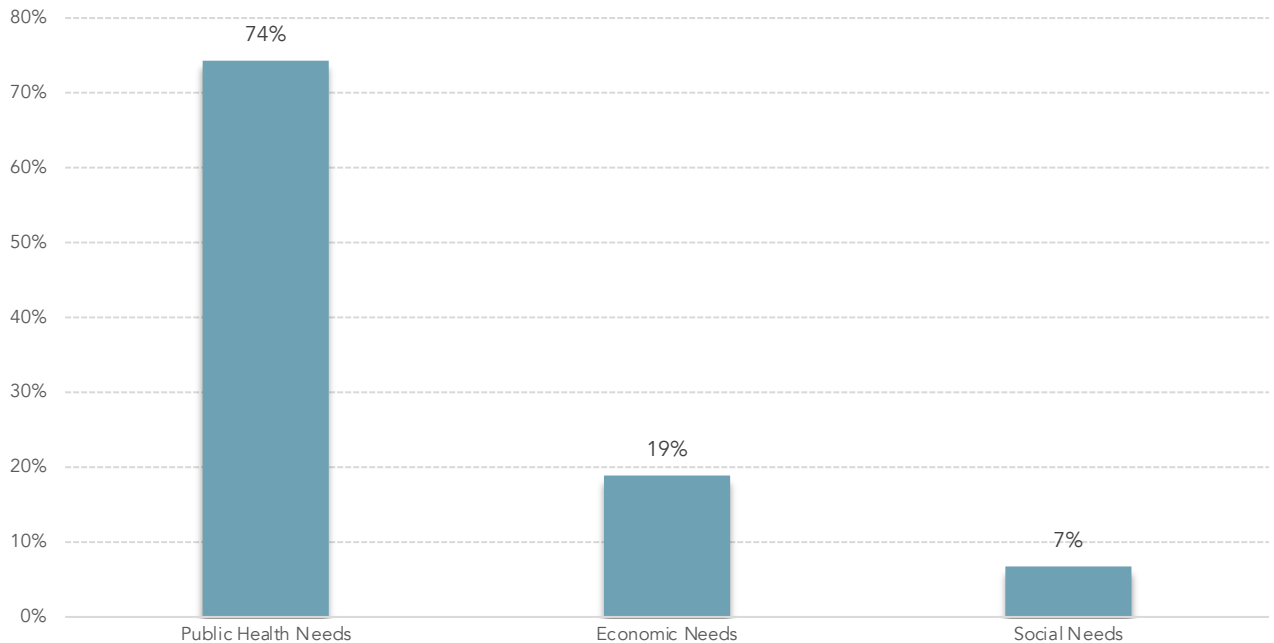
The website "What Will We Do in August?", Slovenia

Hackathons

Finally, the sample included one hackathon initiative. This competition, hosted in Colombia by the companies Numo and Datasketch, the City of Bogota, and several local civic organisations, developed innovative ways to analyse the impact of the pandemic, such as the [impact of quarantine on Bogota's transport system](#).



Needs addressed.



Source: OECD and The GovLab

Early in the mapping process, the taxonomy used for this analysis included 15 COVID-19-related areas that OGD initiatives could help to address, ranging from tracking disease spread to addressing misinformation to guaranteeing protections for workers. This mapping ultimately proved to be too granular for this sample³, and the fifteen items were condensed into three broader needs.

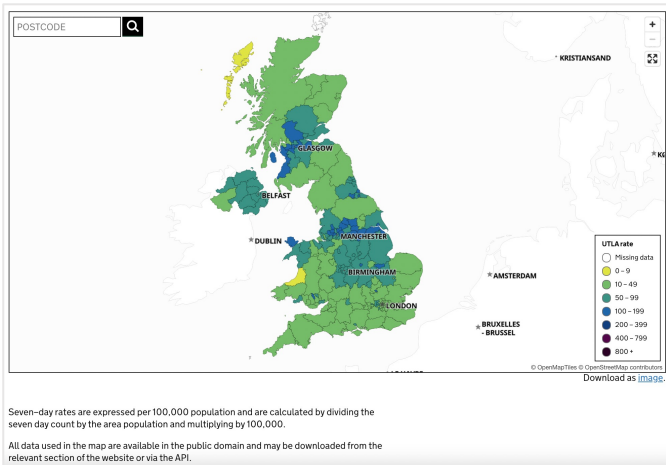
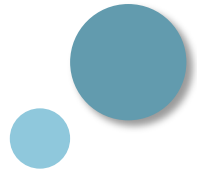
The first, public health needs, refers to all issues related directly to the epidemiological situation, the status of the health system or the various health measures surrounding the pandemic. Social needs refer to initiatives related to addressing the social impact of the pandemic, whereas economic needs refer to initiatives that seek to address the economic impact of the pandemic.

Public health needs

75% of initiatives related to public health needs, with almost all of these projects – 80 percent - seeking to track disease spread. These include Public Health England’s Coronavirus (COVID-19) in the United Kingdom and Mexico’s COVID-19 Dashboard, both dashboards and visualizations of reported case data intended to inform the public on case numbers and locations.

Projects sorted into public health also included the [tracking of available mask stock](#) in Korea; the [publication of data on available intensive-care unit beds](#) in Rio Grande do Sul, Brazil; and the development of the COVID-19 Open Research Dataset Challenge (CORD-19) to release [machine-readable coronavirus scientific literature](#) in the US. The clear and predictable emphasis on public health-related projects can be explained largely by type of crisis and the phase of the pandemic when the initiatives were collected.

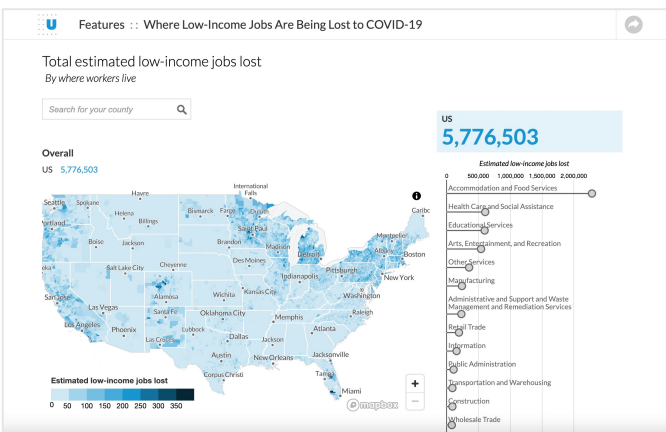
³ See <https://medium.com/data-policy/mapping-how-data-can-help-address-covid19-a7be2e631aec>



Public Health UK's Coronavirus interactive map

Economic needs

Less frequent were projects dedicated to economic needs. Given the negative economic impact of the pandemic on jobs, firms and industries, and the large-scale stimulus packages issued to address those effects, open data around these issues were relevant, yet behind the public health needs given the early phase of the crisis. At the moment of this analysis, only 14 projects (18.9% of the total) looked at allowing citizens to track governments expenditures related to the COVID-19 pandemic, in particular its emerging financial costs (such as [Brazil's Public Expenditure tracker](#)) and how governments could provide support to firms and workers affected by pandemic-related closures.



Map of estimates of low-income jobs lost to COVID-19 in the US by Urban Institute

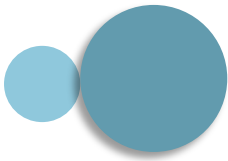
Notable projects included efforts by the United States-based Urban Institute, which used weekly unemployment claims from Washington state and data from the US Bureau of Labor Statistics to [estimate the disease's toll for each sector of the economy](#). A similar collaboration between Statistics Canada and the Canadian Chamber of Commerce sought to understand the [pandemic's influence on businesses](#), surveying owners on whether their businesses had seen a decline in revenue, how they may have adjusted staffing and remote working arrangements, and if they had found new ways to interact with customers amid social distancing.

Social needs

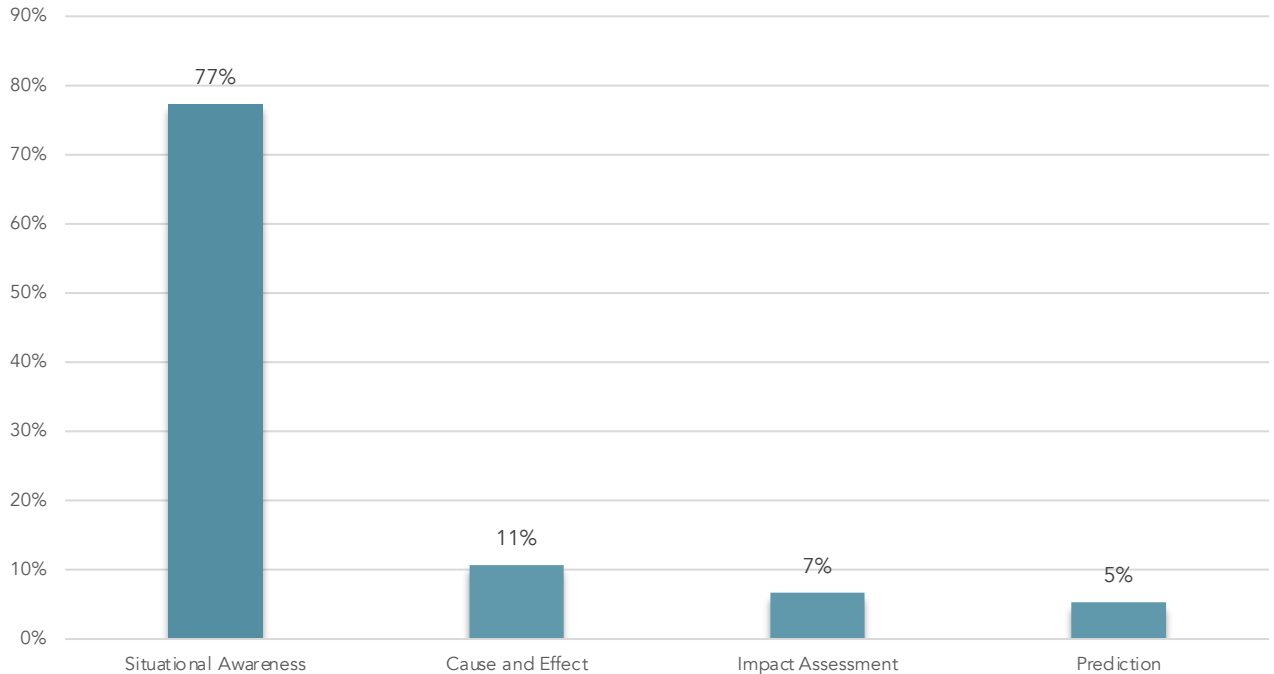
Only five projects in the sample were directed at supporting social needs. Two of these projects focused on issues of accountability, by ensuring that governments spent welfare support as they intended. Two others looked at public perceptions and behaviours, the most prominent being the US Census Bureau's 12-week [survey on public attitudes toward school and business closures](#). The final identified project, the [Corona Virus Media Watch](#), looked at national news coverage to understand the spread of information about the pandemic and response (see this example also in page 10, "Hybrid products").



Brazil's Public Expenditure Tracker



Type of analysis.



Source: OECD and The GovLab

Situational awareness

For the type of analysis—the operational benefits offered by data use—the data revealed similarly lopsided results. Of the 76 entries, 58 (77.3%) sought to improve situational awareness for decision makers and the public. Many of the entries included dashboards, maps, data visualizations, and other products meant to make complex data more understandable. For instance, the [COVID-19 Epidemiological Situation](#) was a project undertaken by the autonomous community of Castile and León in Spain to document spread locally.

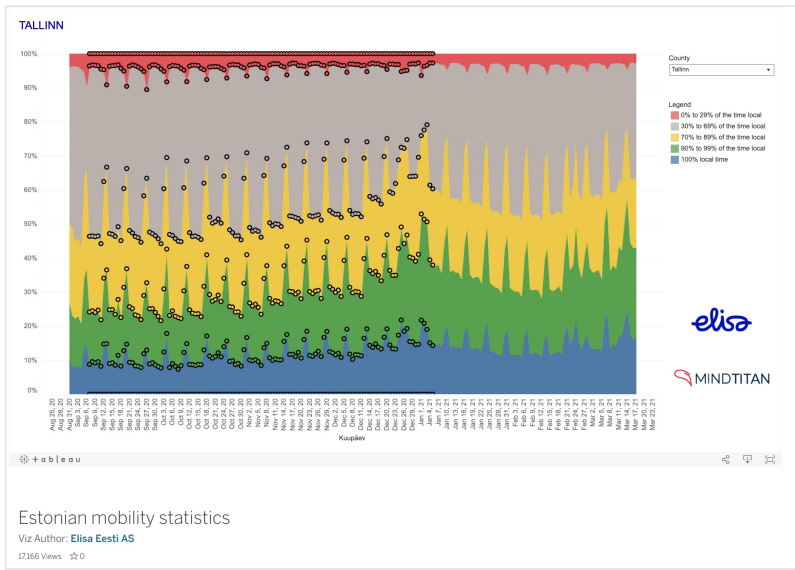
Cause and effect

Significantly fewer projects were aimed at clarifying cause and effect, and the origins and consequences of COVID-19.

With only eight recorded entries (10.7%), some projects sought to better track disease spread by mapping out dependencies. In Korea, MindsLab and the Korean Centers for Disease Control & Prevention [tracked and visualized patient routes](#) to help residents who might be at risk of infection. Others looked at economic effects. In Romania, for instance, the Institute of National Statistics conducted and released ad hoc surveys to assess and create awareness of COVID-19's effects on consumer and business behavior.

Prediction and impact assessment

Even fewer projects sought to enable prediction (5.3%) and impact assessment (6.7%). The Stats NZ project discussed above is a notable example of OGD supporting the creation of models to predict the impacts of various decisions.

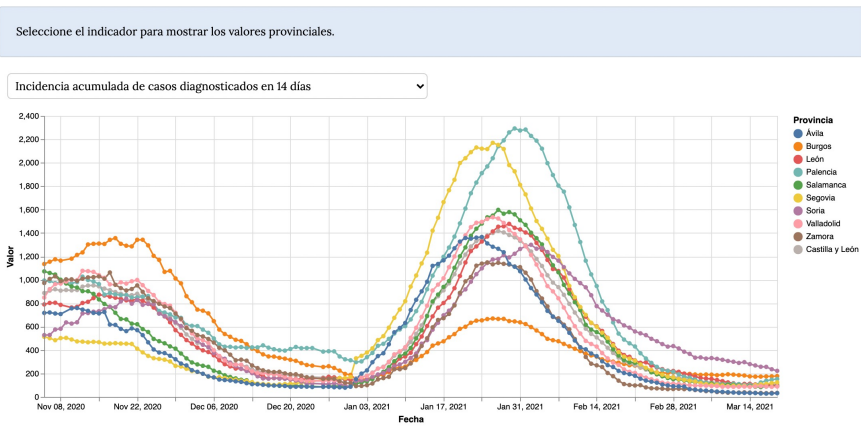


Mobility statistics in Estonia

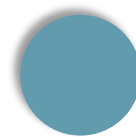
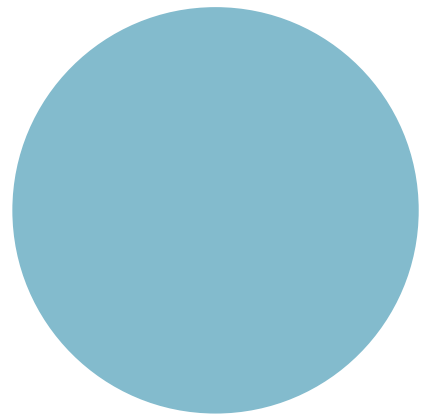
Slovenia’s covid19.alpaka.si included data visualizations of the current state of the pandemic and forecasted likely shifts in COVID-19’s spread.

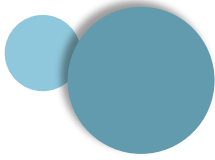
Impact assessment projects largely sought to measure the role of government policy in influencing individual behaviour. Estonia, for instance, used OGD to [try to determine how many people were staying inside](#) in accordance with public health guidance. Notably, The GovLab’s ongoing study of data collaboratives launched to combat various consequences of COVID-19 includes numerous examples of private sector data such as data drawn from [location intelligence firms](#) or [telecom carriers](#), used to assess the impacts of social distancing policies and other government interventions. This is likely because the private sector data streams are usually more up to date and close to real time than datasets opened by governments.

EVOLUCIÓN DE LOS INDICADORES DE RIESGO POR PROVINCIAS

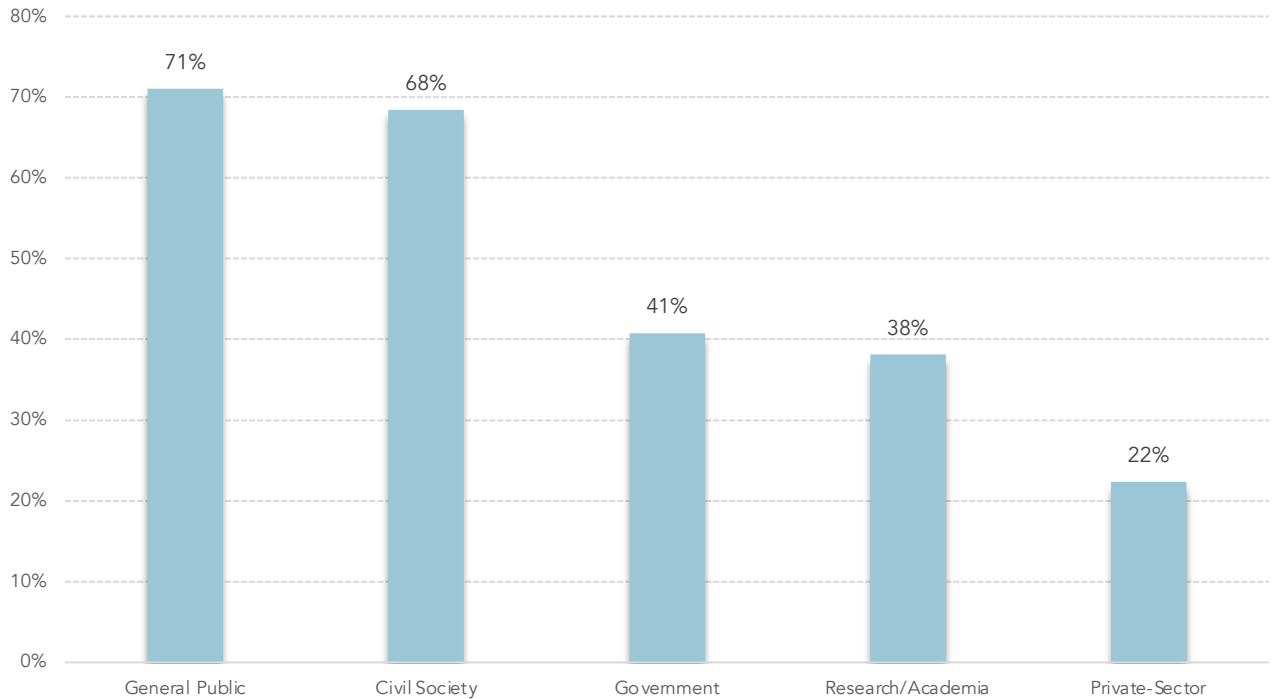


Evolution of COVID-19 risk indicators by province in Castile and León in Spain





Potential users.



Source: OECD and The GovLab

General public and civil society

Initiatives targeting civil society and the general public dominated, making up 68% and 71% of the repository, respectively. While the purpose of the initiatives vary, many targeting civil society appear to be aimed at increasing transparency of government interventions, while projects targeting the general public often involved data visualisations of health statistics.

Honduras's "[Sitio de Transparencia COVID19](#)" is one initiative that targeted civil society, providing a list of resources (e.g., tax revenue, budget support) mobilized to address the pandemic and its consequences. The Portuguese Ministry of Health's "[Current Situation in Portugal](#)" dashboard, which provided basic statistics on COVID-19 cases, is an example of an initiative that targeted the general public, in line with the widespread development of health trackers.

Research and academia

Most initiatives targeting research and academia, a relatively large target group (38%), provided collections of raw and complex data to facilitate research projects. These initiatives underscore the importance of OGD as a component of open science⁴. They included, for instance, the [European Data Portal's dedicated section on COVID-19](#), which provides researchers and others with data on the crisis. It also includes the White House Office of Science and Technology Policy's work with the Allen Institute for AI, Chan Zuckerberg Initiative, Georgetown University's Center for Security and Emerging Technology and the National Library of Medicine to create a [machine-readable database of coronavirus literature](#) (see also page 11, "Public health needs")

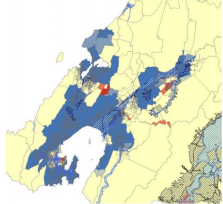
⁴ See <http://www.oecd.org/coronavirus/policy-responses/why-open-science-is-critical-to-combating-covid-19-cd6ab2f9/>



Government

OGD initiatives that targeted government include data on medical supplies and health sector capacity to inform local and regional policy makers. For example, the Republic of Korea's Health Insurance Review and Assessment Service and the Korean Information Technology Agency compiled a [dataset on the country's current mask stock, sorted by vendor](#) with information on name, type of mask, address, and date of receipt.

Figure 9: ESVI hot and cold spots and flood hazard in Wellington (Greater Wellington)



Last, we provide an example in the Wellington area of ESVI cold spots (lowest likelihood of social and economic vulnerability) where there is good flood protection infrastructure in the flood-hazard zones.

ENHANCING RESILIENCE NOW AND FOR THE FUTURE

The concept of [resilience](#) has been extensively studied and applied in diverse disciplines, from ecology to psychology. While there are a number of [interpretations of resilience](#), they share common features, including the capability and capacity to withstand and recover quickly and effectively from shocks and stressors, by minimising losses in lives, livelihoods, and health and in the economic, physical, social, cultural, and environmental assets of persons, businesses, communities, and countries.

In studies of disasters, there has been growing emphasis on the social dimensions of resilience as a result of the large number of major disaster events across the world and a recognition that disasters have a significant social dimension due to their increasingly devastating impacts on local communities. Rapid urbanization and poor development planning, for example, have increased the global exposure of communities to disasters, generating new risks or exacerbating existing risks, all of which have led to a sharp increase in disaster-related losses.

Communities need proactively and consistently to prepare for and mitigate risks to build resilience to the severity of disaster impacts and to recover more rapidly from disaster losses. However, the speed and extent of recovery from disasters often differ significantly across communities, depending on a range of complex factors such as their

socio-economic status, the extent of their external support and aid provision, their past experience of disasters, and the nature and severity of the disaster.

Many of the communities in New Zealand most affected by the current pandemic are also vulnerable to climate change and associated water-related hazards. Not only are they physically at risk – due to their location and proximity to rivers, coastal margins, and floodplains – but their vulnerability is related to social and economic factors such as:

- demographic change within communities, including new migrants with limited experience of extreme events or elderly residents who may be less physically mobile
- low income, high unemployment and under-employment, boom-bust cycles and related issues of housing access and affordability
- strained emergency response systems, particularly outside major urban areas, including infrastructure (roads, hospitals and shelters) vulnerable to major events
- specific vulnerabilities of core economic industries (e.g. tourism and agriculture), and
- a high proportion of significant physical and mental health impacts compounded by well-defined health, justice, and social disparities, which are particularly relevant for Māori.

For policy makers and practitioners, resilience is increasingly used to guide efforts on reducing risk and vulnerability from natural hazards. In late 2019, government released the [National Disaster Resilience Strategy](#), outlining the vision and long-term goals for civil defence emergency management, and the objectives to be pursued to meet those goals. Critical to realising the vision of the strategy is understanding the underlying social resilient characteristics/capabilities of communities so as to help them better prepare for and recover from disasters, and enhancing the ability of social entities and social mechanisms to anticipate, mitigate, and cope effectively with disasters and implement recovery activities that minimize social disruptions and reduce the impact of future disasters.

In 1984, the political scientist John Kingdon introduced the concept of window of opportunity or [policy window](#),⁵ to describe how problems get included in the political agenda through three streams of policy change.⁶ This is no easy task. There are several interacting forces behind the ‘opening of a window of opportunity’ and its possible exploitation. There is significant complexity when it comes to actors, driving forces, economic forces, what opened the window, why, and when was it closed. Often, what is needed is a focus event, sudden, visible and dramatic. A focus event, suggested Kingdon, makes problems obvious, creating a window for intervention.

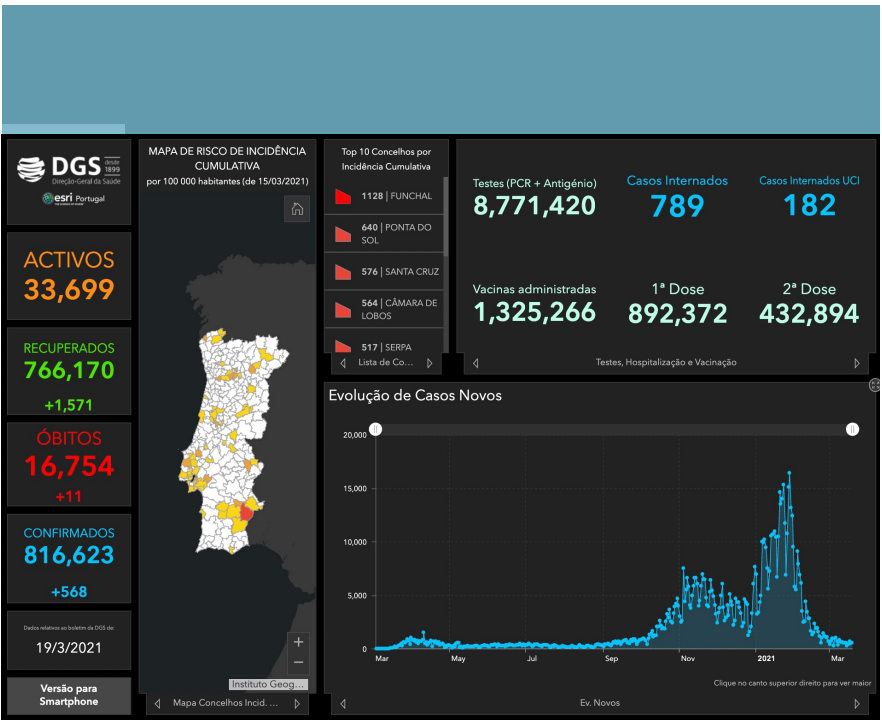
PG 7 POLICY BRIEF NO. 25 (ISSN: 2357-1713) Mitigating hazards in the time of pandemic APR 2020

Report on mitigation of hazards in the context of the COVID-19 in New Zealand

Other examples included the production of OGD-based analyses to inform governments about the multiple consequences of the pandemic. This was the case of the [policy brief prepared by Manaaki Whenua Landcare Research from New Zealand](#), analysing several natural hazards in the context of social restrictions caused by the pandemic.

Private sector

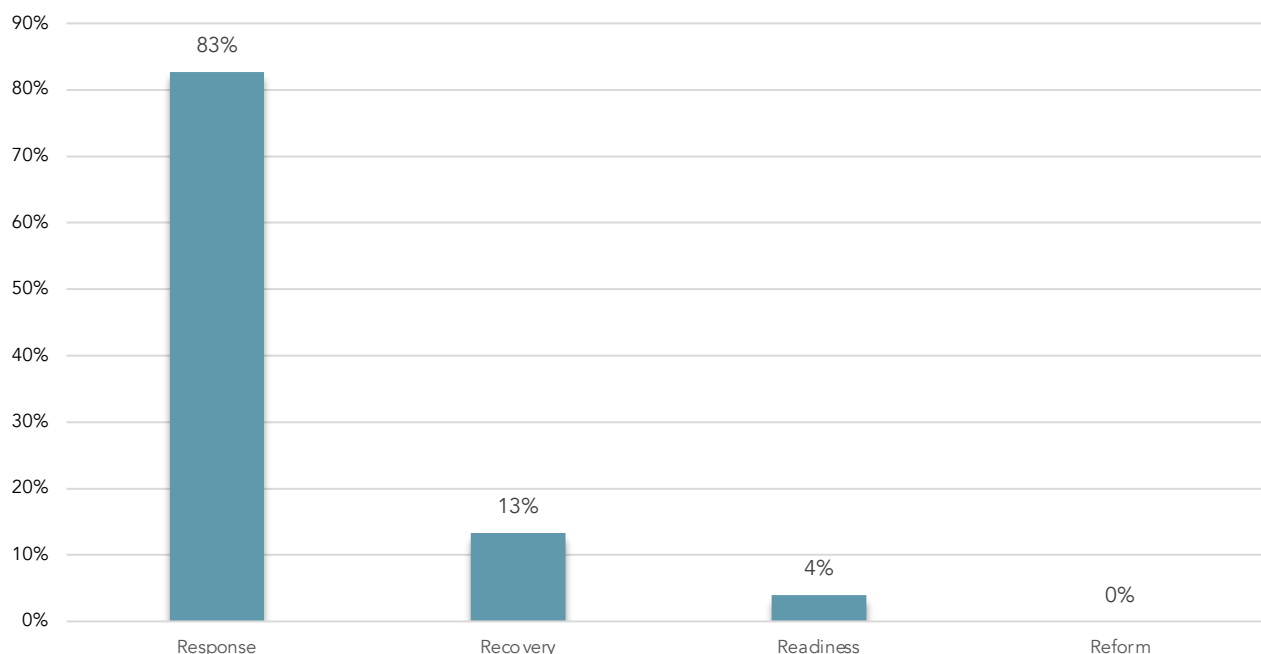
The least targeted potential user was the private sector. Initiatives targeting this group were mostly data repositories and visualisations supporting the economy and businesses, including calls for tender for emergency procurement⁵ and economic outlooks (e.g., [Statistics Canada & the Canadian Chamber of Commerce's polling](#)). The reported lack of outreach to the private sector is consistent with relatively few projects targeting economic needs.



COVID-19 data dashboard "Current situation in Portugal"

⁵ For more information on policy responses to public procurement and infrastructure governance during the coronavirus (Covid-19) crisis, including open data, see <http://www.oecd.org/coronavirus/policy-responses/public-procurement-and-infrastructure-governance-initial-policy-responses-to-the-coronavirus-covid-19-crisis-c0ab0a96/>.

Crisis management phase.



Source: OECD and The GovLab

Response and recovery

Naturally, given the timeframe of the data collection for this report, a significant majority of initiatives focused on the immediate pandemic response (82.7%). 13.3% of projects dealt with issues of recovery—mitigating the damage done by the pandemic to people and institutions. Many of these efforts focused on economic matters, such as measuring declines in traffic activity, tracking the allocation of emergency funds, or alerting residents to the existence of certain useful businesses (such as grocery shop) that they could use.

Readiness and reform

The call for evidence received few initiatives targeting readiness or reform. From the cases gathered, only 4% sought to strengthen crisis readiness. Two of these projects — a policy brief series and an impact prediction model of policies on disease spread — took place in New Zealand.

None of the projects in our sample focused specifically on issues of reform in terms of anticipating future needs or challenges related to crisis management.

Conclusions.

The observed OGD trends provide a snapshot of the opportunities and challenges that existed for governments in releasing and supporting the re-use of OGD during the initial stage of the COVID-19 pandemic. It does not provide insight on any recent initiatives related to issues such as the emergence of new virus variants or vaccine distribution. This section provides a summary of the main conclusions of the data and findings covered in this report, which have been formulated into policy considerations in the first section of the report (see “Policy considerations”).

Governments were focused on communicating the state of the pandemic

The evidence collected suggests that communicating the status of the pandemic was the most prominent use of OGD during the initial stage of the crisis. In our data-intensive society, digital technologies have been used to establish continuous communication mechanisms with citizens. These mechanisms often manifested as dedicated dashboards and data trackers, some providing daily updates on the number of cases, casualties, and recovered people as well as the geographic distribution of these figures. For this reason, ministries of health and national statistics offices stood out as leading OGD efforts on COVID-19 communication activities. This emphasis on communication purposes is also exemplified by the limited examples collected on service delivery (including health services) using COVID-19-related data.

Internationally, efforts have also been conducted to federate data and develop global COVID-19 trackers (such as John Hopkins University or CoronaBoard dashboards). However, these initiatives integrated data collected under different data governance regimes, with different criteria for reporting the status of COVID-19 and related information, thus limiting reliable direct cross-country comparability.

As an example, the Johns Hopkins University Coronavirus Resource Centre is trying to [guide users in understanding the difference between reporting of COVID-19 mortality across countries](#) to improve the interpretation of the data.


Transparency of government policies and actions remains essential

The early initiatives included some, albeit relatively few, initiatives by governments and stakeholders to use OGD in order to bring clarity around the social and economic impact of the crisis. Projects such as Peru’s Datos Abiertos Coronavirus (which informed citizens of COVID-19-related procurement and budgets resources), Brazil’s Public Expenditure on Covid-19, or Costa Rica’s portal on “Transparency of public management under the COVID-19 crisis” epitomized this transparency work.

The lack of such collected initiatives might be natural given that the immediate focus was concentrated on public health, and by now, almost one year after the data collection took place, several OGD initiatives have emerged that are seeking to monitor these factors. The release of OGD on policies and services related to the pandemic is important for making governments more trustworthy. By keeping the public informed, and by complementing this with sufficient oversight and accountability mechanisms, it can make citizens more confident in their government at a time when it is needed the most, including during a global rollout of vaccination schemes.

Data was not always published with a purpose

Although large quantities of government data was made available via repositories and portals, there is little evidence of dedicated services or innovations created from re-using OGD. In line with broader calls for ensuring a “publishing with a purpose” approach, organisations need to better understand data needs across the data ecosystem.



Available data during the first stage of the pandemic was not always published with an explicit, dedicated purpose or with a specific question in mind to answer with them. Why was the data made available? Why were other data not made available? Did published datasets answer to the needs of data users? Expectations and potential uses of released data have not always been made clear and transparent to communities and citizens, which might explain why they do not end up re-used for other purposes than a repository or information purposes.

Engaging directly with constituencies involved in or affected by data can help practitioners better understand the specific needs and demands they need to fulfil. Given the current context of disinformation and lack of trust in official data sources (OECD, 2020^[6]; OECD, 2020^[7]), it is important to establish sound collaboration and co-ordination mechanisms with between governments and data ecosystems to leverage the potential public value locked in these datasets.

Limited collaboration across the open data ecosystem

Among the examples and initiatives submitted, there are relatively few cases of collaboration between public sector organisations and other actors of the open data ecosystem to release data in the context of this pandemic. With growing calls from multilateral boards and civil society organisations to understand and attend the needs of users, this research suggests that OGD initiatives during COVID-19 have been largely deployed by public sector organisations without actively involving third parties. In only a limited number of cases did academia and civil society organisations partner with public sector organisations. The limited involvement of private sector actors compared to other stakeholders also stands out.

With only 8% of examples involving entrepreneurs or firms in the development of OGD initiatives, this trend follows long-term evidence on reduced opportunities for collaboration between public sector organisations and the private sector when using OGD.

This contrasts with the dozens of examples in The GovLab's [Data4COVID19](#) Data Collaborative Repository also collected during the first semester of 2020, in which government agencies and other public actors are partnering with actors in the private, academic and non-profit sectors through data collaboratives COVID-19.

Actors might also seek to make more institutional changes. For instance, they might create "data steward" roles, positions in which responsible data leaders seek new ways to create public value through cross-sector data collaboration, within their hierarchies to better conduct coordination across sectors. Actors can also establish emergency data intermediaries to co-ordinate and promote necessary cross-government and multi-level government data sharing and open data release during a crisis.

Rethinking the role of central/federal OGD implementation bodies

The growing number of advanced, sectoral OGD ecosystems poses questions on the future role of central/federal government bodies that currently have the explicit responsibility not only to oversee but also implement OGD initiatives (e.g., by providing support to the technical and operational release of open data). In the context of dedicated ecosystems, these OGD-leading bodies may come to focus efforts for coordinating data standards, infrastructure, and interoperability rather than help in implementing them.

In the context of the pandemic, coordination and leadership within governments may fall under the responsible health or risk management authorities – as observed with national and local health authorities leading efforts to publish open COVID-19 data. As such, the role of OGD-leading bodies could be to support these authorities in ensuring processes exist to ensure available data meets user needs, data are of sufficient quality to enable impactful use, and that there is engagement with users to promote use (OECD, 2020^[8]). In the long term, OGD-leading bodies should advise health and risk management organisations to embed data and openness by design in related policies.

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Open call for evidence OGD use during the COVID-19 pandemic.

The OECD Digital Government and Data Unit and NYU's The GovLab have issued a call for evidence on the release and use of Open Government Data (OGD) in response to the Covid-19 outbreak. Recognising that the COVID-19 is a multifaceted challenge that requires joint responsibility and actions, we would like to hear from you about:

- Open data sets you are using;
- Type of questions these data and related products/services are trying to address
Topic or purpose these data seeks to address;
- Specific phase / dimension of the crisis these questions relate to (readiness, response, recovery, reform);
- Specific activity they contribute to; and
- Actors involved (such as entrepreneurs, media, researchers, CSOs, public sector organisations).

See collected evidence and send your initiatives and examples of OGD use during the COVID-19 pandemic at

<https://oe.cd/ogd-covid19>



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Annex A.

Data taxonomy to characterise and analyse uses of OGD during the COVID-19 pandemic

In order to identify, classify and analyse the initiatives collected using open government data to address the COVID-19 pandemic, the OECD and The GovLab developed a set of typologies across key uses, actors and pandemic stages to guide this process.

Data products

- **Data visualisation:** static graphics communicating data or information through visuals such as points, lines or maps.
- **Dashboard and data visualisation:** a combination of the previous two categories.
- **Repository:** a place where data are made available to use and organised in a logical manner
- **Website:** a collection of webpages.
- **Report:** a document presenting information in an organised manner with a specific purpose
- **Hackathon:** an event gathering a large number of people with the purpose of collaborative computer programming.

Needs addressed

- **Public health needs:** issues related with the progress and status of the pandemic and elements required to enable an effective healthcare response.
- **Social needs:** issues related to the social impact of the pandemic, including social benefit receipts.
- **Economic needs:** issues related to the economic impact of the pandemic, including budgets, procurement and economic aid packages.

Type of analysis

- **Situational awareness:** Initiatives that enable potential users to be aware about a specific situation and better understand it.
- **Cause and effect analysis:** Initiative that tries to understand the current or previous drivers and consequences of the COVID-19 pandemic.
- **Prediction:** Initiative that attempts to predict the future state, drivers and consequences of the pandemic.
- **Impact assessment:** Initiatives that help assess the current impact of the COVID-19 pandemic or policies aimed at addressing the pandemic and its consequences.

Potential users

- **Private sector:** Encompasses all for-profit businesses that are not owned or operated by the government.
- **Civil society:** Refers to a wide array of organisations: community groups, non-governmental organizations [NGOs], labour unions, indigenous groups, charitable organizations, faith-based organizations, professional associations, and foundations.
- **Research / academia:** Organisations conducting or funding scientific and academic research, including universities and colleges.
- **General public:** Individuals or communities not affiliated to any specific organisation.
- **Government:** The offices, departments, and groups of people that control a country, state, city, or other administrative unit.

Crisis management phase

- **Readiness:** Reflects initiatives that contribute to key policy components and foundations that provide the basis for a coherent and sustainable COVID-19 recovery and the recovery of future crises.
- **Response:** Covers initiatives that assist in developing targeted public policies, services and initiatives launched immediately, or shortly, after the COVID-19 pandemic hit. Responses are often made possible because of the “readiness” and foundations previously put in place.
- **Recovery:** Encompasses initiatives that support policy actions and measures with a medium-term impact in stimulating and restarting economic and social activities through financial incentives, social support and protection as the lockdown eases, while still reinforcing local and national response capacities.
- **Reform:** Comprises of initiatives that aid in developing concrete plans and steps after the crisis has subsided but are still highly associated and relevant in addressing the long-term repercussions of the COVID-19 pandemic.

Annex B.

Classification of initiatives according to typologies

The OECD and The GovLab conducted a classification and analysis process following the typologies and analytical framework defined in Annex A. For this purpose, initiatives using open government data to address the COVID-19 pandemic were classified according to information provided and the data cleaning process performed by these teams. Initiatives were sorted according to the information reported by contributors in each of the requested typologies, with only 'potential users' typology having initiatives allocated to several options.

Classification of initiatives according to data products.

<i>Data product</i>	<i>Amount</i>	<i>Percentage</i>
Dashboard	18	23.68%
Dashboard and data visualisation	8	10.53%
Data visualisation	12	15.79%
Repository	28	36.84%
Website	5	6.58%
Report	4	5.26%
Hackathon	1	1.32%

Source: OECD and The GovLab

Classification of initiatives according to needs addressed.

<i>Needs addressed</i>	<i>Amount</i>	<i>Percentage</i>
Public health	55	74.32%
Social needs	5	6.76%
Economic needs	16	18.92%

Source: OECD and The GovLab

Classification of initiatives according to type of analysis.

<i>Type of analysis</i>	<i>Amount</i>	<i>Percentage</i>
Situational awareness	59	77.33%
Cause and effect	8	10.67%
Prediction	4	5.33%
Impact assessment	5	6.67%

Source: OECD and The GovLab

Classification of initiatives according to crisis management phase.

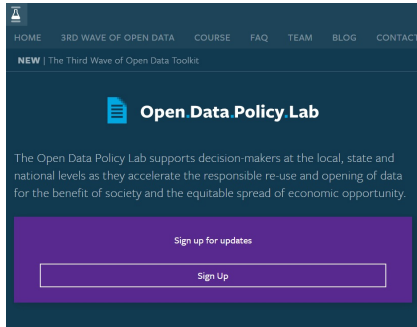
<i>Crisis management phase</i>	<i>Amount</i>	<i>Percentage</i>
Readiness	3	4.00%
Response	62	82.67%
Recovery	11	13.33%
Reform	0	0.00%

Source: OECD and The GovLab

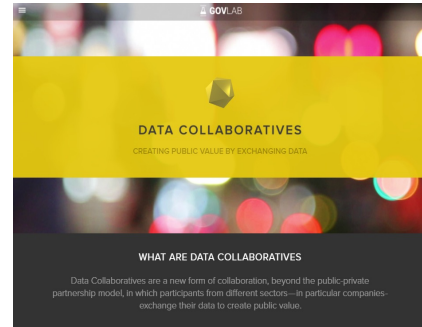
Classification of initiatives according to potential users.

<i>Potential users</i>	<i>Amount</i>	<i>Percentage</i>
Private sector	17	22.37%
Civil society	52	68.42%
Research / academia	29	38.16%
General public	54	71.05%
Government	31	40.79%

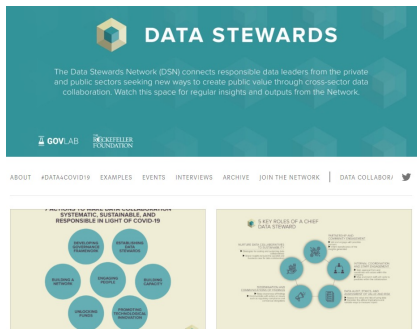
Source: OECD and The GovLab



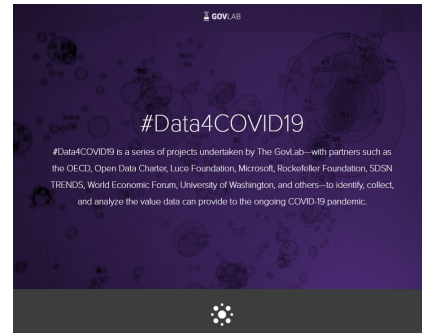
The Open Data Policy Lab
<https://opendatapolitylab.org/>



Data Collaboratives
<https://datacollaboratives.org/>



Data Stewards Network
<https://medium.com/data-stewards-network>



#Data4COVID19
<https://data4covid19.org/>

For more information visit:
<https://www.thegovlab.org/>

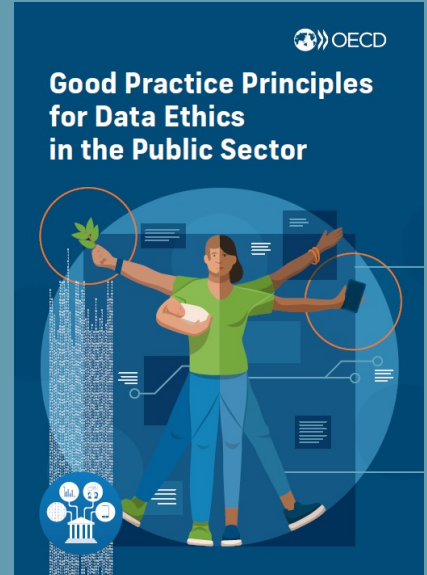




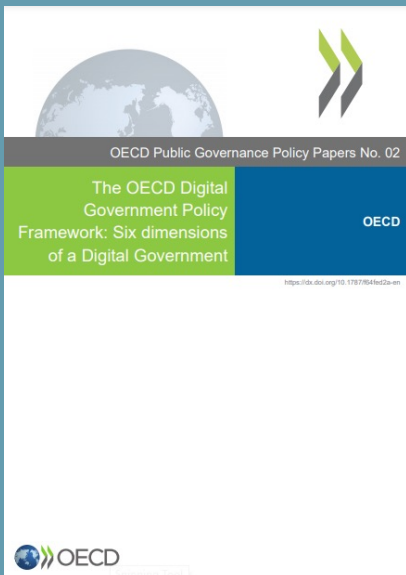
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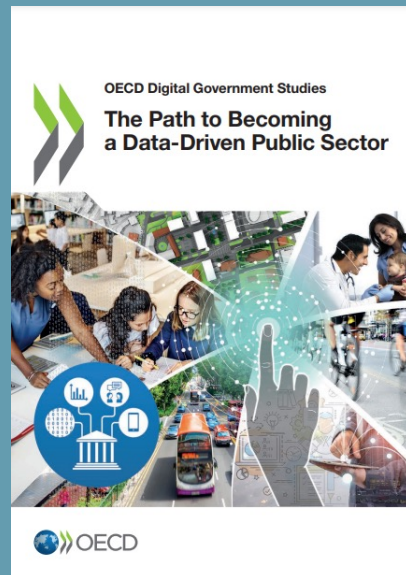
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For more information visit:
oe.cd/gov/digital-government

