



Submission on Canada's response to the COVID-19 pandemic
House of Commons Standing Committee on Industry, Science, and Technology
May 22, 2020



Introduction

Over the past few decades, the world has become increasingly digital, fundamentally changing how people interact, and how businesses create products and services. This increasing digitization is producing exponentially growing streams of data, which is continuously being collected, stored, processed, and shared. With the COVID-19 pandemic, the importance of digitization has become even clearer. As Canada reopens the economy in the coming months, we must tap Canada's most undervalued resource—data—to support Canada's economic recovery in the months and years ahead, and ensure businesses and industries are positioned to thrive moving forward.

Deloitte sees the COVID-19 crisis playing out over three time frames for both businessesⁱ and governmentsⁱⁱ: *respond*, *recover*, and *thrive*. In the ***respond*** phase, businesses are dealing with the present situation and focusing on managing continuity. Governments are dealing with an immediate crisis, which includes business closures, curtailing travel, meeting urgent medical needs and providing immediate financial assistance. As we transition to a ***recover*** phase, businesses focus on learning and emerging stronger, while governments shift their focus to steepening the curve of the economic recovery and mitigating the broader impacts of the crisis. In the ***thrive*** phase, businesses are preparing for, and shaping the 'next normal', as governments also look ahead and consider introducing long-term improvements so they can respond effectively to future risks. This submission will focus on the ***recover*** and ***thrive*** phases.

Data presents huge economic potential for businesses and industries. Indeed, the world's most valuable companies today are technology companies, including Canada's 'Shopify', and their most valuable assets are their troves of data, which they use to inform operational strategies, improve business competitiveness, and increase profitability.ⁱⁱⁱ Data also gives governments the critical information they need on the ground to identify problems and fix them with targeted policies that really work.

However, the pandemic has exposed gaps in the way Canada's data assets are regulated, collected, stored and analyzed. Despite government and the private sector's best efforts, there are significant blind spots in tracking this virus and understanding how the public and private sectors can recover and thrive once the pandemic subsides. In fact, the main point of a report we released prior to the pandemic called *The most undervalued resource: the importance of capitalizing on the data economy*, was that Canada is not data-ready. We found that over 70 percent of business leaders surveyed rated Canada's performance as average or below average for all data capabilities. But we also found that business leaders are supportive of government policies to ensure the security of digital data, as well initiatives that increase the availability and usage of public data. This issue has taken on renewed importance for governments in the context of the present crisis. Canadians are also becoming more aware of the importance of data in the face of the COVID-19 pandemic: 54 percent of Canadians are willing to give up more of their personal health and location tracking information to the government that they normally would in order to help track and contain the spread of the virus.^{iv}

Data is the tool that will help the public and private sectors recover and thrive from COVID-19 and the economic decline that has ensued. In this submission, we will share our recommendations for the federal government on **how to effectively share, collect and leverage data in order to safely and effectively reopen the economy, and ensure businesses and industries thrive in the months and years ahead**. While doing so, we know that privacy will be a priority for both governments and businesses, so we will also share **recommendations on how the federal government can lay the foundation to better safeguard data moving forward**.

Section 1 | The importance of collecting and sharing data to reduce Canada's data deficit

Unlocking data so governments and businesses can work together to reopen Canada and kick-start the economy

As Canada recovers from the crisis and begins to boost the economy, properly leveraging data for a complete view on the virus and predicting its effect on business operations is critical for decision makers. It has become apparent during this pandemic that monitoring the right set of data indicators to best assess all facets of COVID-19's impact on society is absolutely critical. For example, travel patterns, social gatherings, ambulance use, and consumer packaged goods purchases are all inconsequential pieces on their own, but when viewed and analyzed together they can help decision makers get ahead of this complex crisis and make a meaningful impact for society. Precise, real-time and transparent data is required to address this crisis head on, and effectively safeguard the health of the public while businesses reopen.

Virtually all of Canada's reopening plans involve the effective use of public health data to inform policy decision making, but Canada suffers from a lack of effective and timely data infrastructure. As noted in *Lessons Learned Review: Public Health Agency of Canada and Health Canada Response to the 2009 H1N1 Pandemic*, Canada has consistently faced challenges in tracking national health data.^v Canada's public healthcare system is set up in such a way that a significant amount of data is currently concentrated among publicly funded, provincial institutions, and resides in fit-for-purpose silos in research, clinical, and local repositories in the country.

In order to efficiently deliver healthcare during and after COVID-19, and better prepare for future pandemics, healthcare data needs to be collected and shared across Canada in real time. Sharing health data in this way must include the participation of municipalities, local health authorities, long-term care networks, and the provinces and territories feeding standardized data into a shared digital platform where it is accessible to government decision makers at all levels. Giving these decision makers an accurate and instant view will ensure Canada can predict and prepare for future health crises, including subsequent COVID-19 waves or another virus. This type of foresight will in turn help ensure businesses and the economy are prepared too, and that reopening can occur in a coordinated and targeted way. To achieve this modernized and integrated system, Deloitte recommends that the **federal government lead the development of one healthcare data sharing platform across all levels of government that is transparent and in real time, and that follows common definitions, criteria, and collection standards.**

In the big picture, layering this health data with economic, industry and government data sets would give policymakers and business leaders a complete and accurate view on when and where businesses can reopen safely and effectively. To achieve this feat, data would need to be collected and shared between and amongst the public and private sectors, and then made available so all governments and businesses in Canada can use it to recover and thrive. For example, [Deloitte's COVID-19 Economic Recovery Dashboard](#) brings together a variety of data sources from Canadian and international sources to help organizations get a better understanding of all the facets of Canada's economic recovery from COVID-19. Health, community and social activity, finance and economic data are all included and updated regularly to signal when the rebound stage has arrived. Additional and timely public health data would go a long way in helping public policy makers and business leaders make full and complete assessments while making critical decisions that affect the wellbeing of Canadians.

Public-private data sharing between the public and private sectors

Data sharing between the public and private sectors is also critical to reduce the data deficit, help Canada recover, and unlock our economic competitiveness so we thrive post-COVID-19. There are currently too many blind spots; data must be shared and not hoarded in order to better serve the public and private sectors alike. When used to its full capacity, shared or 'open' data has the potential to drastically elevate business productivity and help government improve Canadians' standard of living. There are common datasets used by companies to make decisions and innovate, including

geospatial, transportation, environmental, and demographic.^{vi} As the situation currently stands, one organization might have just a small portion of the data needed to make an important policy or business decision, while a different organization has another piece of data needed to complete the picture. Individually, the data may be useless but when combined, a full data set is produced that provides significant value to both organizations.^{vii}

Businesses need access to diverse data to run good analytics in order to make the high-cost, high-risk decisions they need to thrive, but there is a lack of available data in Canada. This includes fast and accurate economic data from the government that accurately reflects the situation on the ground during the pandemic. For example, there is no publicly available data that shows bankruptcies, how workers in certain sectors have been affected, how many layoffs there have been, or the degree to which the federal government's enhanced wage-subsidy program has triggered rehiring.^{viii} This data would help businesses understand where the economy is headed and help them plan their reopening during the recover phase of COVID-19. To help boost the economy after COVID-19 and well into the future, Deloitte recommends the **new Industry Strategy Council being stood up include a specific mandate to identify new data streams the government can open up to better support businesses in identifying market niches, securing their supply chains, and planning for the future.**

To facilitate public-private data sharing in the months and years ahead, Deloitte recommends the federal government build a Canadian data collective to help connect data that exists in business and government silos. A national data-sharing collective would feed unprecedented innovation in the private sector. Once shared, collective data is available for business use and the private sector can begin to set new standards for how to unlock value from data. For example, leading data economies have built enormous collections of data that are spurring new and innovative initiatives like autonomous vehicles, smart cities, space exploration, and more.^{ix} Opening up government data and combining different data sets, like public sector data layered with private sector telecommunications data, would give real value to Canadian citizens, policymakers, supply chains, and private sector operations, to name a few examples.

Deloitte also recommends the federal government **enable Statistics Canada to collect better data for government, public and private use by allowing it to work more closely with the private sector and providing it with additional funding.** This will facilitate open data flow between the public and private sectors and fill in the data deficit.

Government data silos are also detrimental to the private sector's recovery and success. Currently, departments don't have the data they need to fully understand and predict the impacts of COVID on different sectors of the economy, which hampers government's ability to identify problems and fix them with targeted policies that will propel Canadian businesses forward. Conversely, once policies are implemented, departments and ministries in Canada lack the data to fully understand if the policies are working.^x Internally, government must improve cross-departmental access to existing systems and data sets so that government information is shared and accessible. The Privy Council Office's internal Data Strategy initiative is a step in an encouraging step forward to this end, but **more can be done to continue breaking down data silos between departments.**

Section 2 | Short-term data opportunity

Leveraging data to address the supply chain issues faced by Canadian industries and businesses during COVID-19

The reality of business today is that companies get their parts from other companies, and sell to consumers or again to other companies, through a network of complex, deeply integrated global supply chains. This means the impacts of supply chain disruption as a result of the pandemic will be longstanding and require new thinking on how the government can support organizations in geographically diversifying and identifying reliable suppliers for sourcing. Supply chain challenges arose for companies at the outset of the outbreak of the virus when key manufacturing regions in China were shut down in January. As noted in the Deloitte report, *Managing supply chain risk and disruption*, prior to the crisis many organizations were not fully aware of the vulnerability of their supply chain relationships to global shocks. Very few organizations could trace their supply chain beyond their Tier 1 suppliers, and advanced digital solutions are generally required to trace supply networks reliably across the multiple tiers of suppliers that are required to fully understand supply-side risk. As a result, the domino effect of plant closures and supply shortages across the extended network quickly led to significant disruption. Organizations well-positioned to respond to the disruptions, and mitigate the impact had four key elements in place:

1. Geographic diversification to reduce supply-side risks from any one country or region
2. Multiple sources for key commodities or strategic components to reduce their reliance on any one supplier
3. Supply chain risk management and business continuity strategies to provide visibility across the extended supply network
4. An inventory strategy to buffer against supply chain disruption, built on good data to project stock-outs of direct materials and optimize production, or stock-outs of finished goods to optimize customer allocation

The immediate focus for many organizations going forward will be on improving visibility to supply chain risk by investing in digitizing key elements of the process. The use of structured and unstructured data, machine learning-powered platforms, cognitive computing and other Industry 4.0 technologies can help create visibility into supply networks more quickly and to a level of detail that was previously thought to be impossible.

The information private sector institutions are collecting as they develop Digital Supply Networks (DSNs) can be shared back with governments at all levels to inform decision-making. DSNs allows various parts of the supply chain to speak with each other to automatically adjust government sourcing, procurement, and delivery to create optimal outcomes for Canadians. The ability for individual health care providers to effectively communicate with Public Services and Procurement Canada to inform the precise delivery of foreign sourced Personal Protective Equipment (PPE) would be an example of DSNs in action.

For businesses that rely on intermediate goods from regions still under lockdown, and that are not able to easily switch sourcing, the size of the impact may depend on how quickly the outbreak fades and when other countries reopen their factories and ports. Small and medium-sized firms may have greater difficulty adjusting.

With port congestion, a decrease in air freight capacity, and shortages of truck drivers, there is a significant backlog in logistics that will take some time to resolve. There is an opportunity to **leverage existing cross-sectoral groups like the community of five supercluster research initiatives, to collect data in real-time on these supply chain challenges and work together to map a way forward.**^{xi} This could begin with leveraging the Oceans Technology Supercluster to understand transportation pressures at the ports, working with the Scale AI Supercluster to support firms in rethinking their supply chains, and the Protein Industries Supercluster in creating supply networks at the domestic level.



The federal government can also support businesses of all sizes going forward by leveraging data to inform their approach to the future modernization and negotiation of trade agreements. The federal government should consider creating a central portal to collect data from businesses on how their supply chains have been impacted by the crisis, and whether or not they plan to move to diversify their sourcing into other markets. This will help enable Trade Commissioners to get a timely picture of new agreements to pursue, and companies looking to move in to new markets that require assistance getting connected.

Section 3 | Privacy is a priority

How to modernize Canada's privacy framework to better support these advancements in data

Our research has found that 65 percent of Canadians had serious privacy concerns about how companies were using their data^{xii} and that businesses in Canada are likely to move more slowly in the data economy than those of other countries because they prioritize secure data usage.^{xiii} When asked how Canadian policymakers can better support businesses, Deloitte found that business leaders are most supportive of governments creating policies to ensure the security of digital data (83 percent of respondents), as well as initiatives that increase the availability and usage of public data (70 percent). They gave top priority to building the proper structures for data protection and security. Clearly, getting the right approach to data will be important for Canadian businesses, and ultimately, the country as a whole. **Deloitte recommends that the federal government clarify data privacy laws, and explore the creation of data trusts.**

Businesses need a clear set of guardrails to operate within (and consequences for stepping out of bounds) for the collection, storage, and sharing of data. **While the creation of the federal Digital Charter is a step in the right direction, accelerated progress is desperately needed to update Canada's outdated PIPEDA and Privacy Act laws, specifically with regards to enforcement and accountability.** For example, the European Union's General Data Protection Regulation (GDPR) established clear frameworks for third-party data sharing: companies cannot transfer an individual's personal data to third parties unless specified explicitly in the contract for an identified reason, or if the company has obtained consent from the individual.^{xiv}

The federal government should also implement data trusts in order to solve complex data and privacy concerns of their citizens. Data trusts are independent stewards of data that maintain and manage how data is used and shared, such as who is allowed access to data and under what terms. Data trusts are flexible and can be used to enable health-care innovation, to improve urban mobility, and to build new consumer products, among other uses. The Open Data Institute in the United Kingdom studied three pilot data trusts in the areas of urban space use, illegal wildlife trade, and global food waste. They found that these organizations can help balance conflicting and different views and incentives on how data should be shared and who should access it.^{xv}

Conclusion

Data is the lifeblood of our digital 21st century, transforming the way we live and work. This has been made increasingly apparent since the COVID-19 pandemic. In this submission, Deloitte has made the argument that the public and private sectors in Canada must effectively share, collect and leverage data in order to safely and effectively reopen the economy, and ensure that businesses and industries thrive in the months and years ahead. Data is the tool that will allow decision makers in policy and business to safeguard the health and safety of Canadians while simultaneously reopening the economy and positioning it to thrive. But, for this to be accomplished, privacy legislation must be updated to give businesses the guardrails they need to protect data and Canadians' privacy.

Deloitte has made nine key recommendations that the federal government must adopt to allow industry to recover and thrive from COVID-19:

1. **Urgently clarify data privacy laws by updating Canada's outdated PIPEDA and Privacy Act legislation, specifically with regards to enforcement and accountability.** Businesses need a clear set of guardrails to operate within (and consequences for stepping out of bounds) if they are to move forward with the collection, storage, and sharing of data.
2. **Leverage existing cross-sectoral groups like the community of five supercluster research initiatives, to collect data in real-time on supply chain challenges and work together to map a way forward.** With port congestion, a decrease in air freight capacity, and shortages of truck drivers, there is a significant backlog in logistics that will take some time to resolve. This will help small and medium-sized businesses who may have a harder time adjusting.
3. **Mandate the new Industry Strategy Council to identify new data streams the government can open up to better support businesses in identifying market niches, securing their supply chains, and planning for the future.** Businesses need access to diverse data to run good analytics in order to make the high-cost, high-risk decisions they need to thrive, but there is a lack of available data in Canada. This includes fast and accurate economic data from the government that accurately reflects the situation on the ground during the pandemic.
4. **Enable Statistics Canada to collect better data for government, public and private use by allowing it to work more closely with the private sector and providing it with additional funding.** This will facilitate open data flow between the public and private sectors and fill in the data deficit.
5. **Lead the development of one healthcare data sharing platform across all levels of government that is transparent and in real time, and that follows common definitions, criteria, and collection standards.** Immediately feeding integrated data directly from the front lines to decision makers at all levels of government in Canada will provide an essential link between the day-to-day needs of Canadians and policy and program decision making. Such a platform will ensure Canada's health system and economy are prepared for future health crises.
6. **Implement data trusts in order to solve complex data and privacy concerns.** Data trusts are independent stewards of data that maintain and manage how data is used and shared, such as who is allowed access to data and under what terms.
7. **Continue work to break down data silos between departments.** Data must be shared between departments so they have the information they need to understand and predict the economy, and craft targeted policies that will propel Canadian businesses forward.
8. **Build a Canadian data collective to help combine data between business and government.** When you open up government data and start combining different data sets, like public sector data layered with private sector telecommunications data, you can get real value for Canadian citizens, policymakers, supply chains, and private sector operations, to name a few examples.
9. **Support businesses of all sizes going forward by leveraging data to inform their approach to the future modernization and negotiation of trade agreements.** Collecting data from businesses on how their supply chains have been impacted by the crisis, and whether or not they plan to move to diversify their sourcing into other markets, will give the federal government a timely picture of new trade agreements to pursue. It will also enable Trade Commissioners provide assistance to companies who are looking to move in to new markets.

Adopting these recommendations will be crucial to developing targeted, efficient, and safe public policies that support industry's recovery and ensure they thrive after COVID-19.

References

ⁱ Renjen, Punit, “The heart of resilient leadership: Responding to COVID-19, A guide for senior executives,” (16 March 2020), <https://www2.deloitte.com/global/en/insights/economy/covid-19/heart-of-resilient-leadership-responding-to-covid-19.html>

ⁱⁱ Chew, B., Eggers, W.D., Flynn, M., O’Leary, J., “Governments’ response to COVID-19: From pandemic crisis to a better future,” (16 April 2020), <https://www2.deloitte.com/us/en/insights/economy/covid-19/governments-respond-to-covid-19.html>

ⁱⁱⁱ Deloitte, “Canada’s most undervalued resource: The importance of capitalizing on the data economy,” (2020), <https://www2.deloitte.com/ca/en/pages/deloitte-analytics/articles/canadas-data-economy.html>

^{iv} See Edelman Trust Barometer 2020 *Spring Update: Trust and the COVID-19 Pandemic* (<https://www.edelman.ca/sites/g/files/aatuss376/files/2020-05/2020%20Edelman%20Trust%20Barometer%20Spring%20Update%20Canada.pdf>)

^v See the Government of Canada’s *Lessons Learned Review: Public Health Agency of Canada and Health Canada Response to the 2009 H1N1 Pandemic* (<https://www.canada.ca/en/public-health/corporate/mandate/about-agency/office-evaluation/evaluation-reports/lessons-learned-review-public-health-agency-canada-health-canada-response-2009-h1n1-pandemic/findings-surveillance-science-research.html>)

^{vi} Open Data Institute, “Open data means business”, <https://theodi.org/article/open-data-means-business/>

^{vii} Khan, B., “Data collaboration will lead to a greater piece of global wealth for Canada,” (23 February 2020), The Globe and Mail, <https://www.theglobeandmail.com/business/commentary/article-data-collaboration-will-lead-to-a-greater-piece-of-global-wealth-for/>

^{viii} Andrew-Gee, E., Grant, T., “How Canada’s crucial data gaps are hindering the coronavirus pandemic response,” (23 April 2020), The Globe and Mail, <https://www.theglobeandmail.com/canada/article-how-canadas-crucial-data-gaps-are-hindering-the-coronavirus-pandemic/>

^{ix} Khan, B., “Data collaboration will lead to a greater piece of global wealth for Canada,” (23 February 2020), The Globe and Mail, <https://www.theglobeandmail.com/business/commentary/article-data-collaboration-will-lead-to-a-greater-piece-of-global-wealth-for/>

^{xi} See the Government of Canada’s *Canada’s new superclusters* (<https://www.ic.gc.ca/eic/site/093.nsf/eng/00008.html>)

^{xii} Deloitte, “Canada’s AI imperative: Overcoming risks, building trust,” (2019), <https://www2.deloitte.com/ca/en/pages/deloitte-analytics/articles/canadas-ai-imperative.html>

^{xiii} Deloitte, “Canada’s most undervalued resource: The importance of capitalizing on the data economy,” (2020), <https://www2.deloitte.com/ca/en/pages/deloitte-analytics/articles/canadas-data-economy.html>

^{xiv} Ibid.

^{xv} Ibid.

Contacts

Bilal Khan

Managing Partner and Head of Deloitte Data
Deloitte
bikhan@deloitte.ca

Oren Cainer

Public Policy Lead, The Future of Canada Centre
Deloitte
ocainer@deloitte.ca

About Deloitte

www.deloitte.ca

Deloitte provides audit & assurance, consulting, financial advisory, risk advisory, tax and related services to public and private clients spanning multiple industries. Deloitte serves four out of five Fortune Global 500® companies through a globally connected network of member firms in more than 150 countries and territories bringing world-class capabilities, insights and service to address clients' most complex business challenges. To learn more about how Deloitte's approximately 264,000 professionals—14,000 of whom are part of the Canadian firm—make an impact that matters, please connect with us on LinkedIn, Twitter or Facebook.

Deloitte LLP, an Ontario limited liability partnership, is the Canadian member firm of Deloitte Touche Tohmatsu Limited. Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

© Deloitte LLP and affiliated entities.