## Project Title: **Looking Glass: Protecting Canadians in a Return to Community**

**Tagline:** Analytics to help inform decision making around the health and economic impact of COVID-19 policies

## Project Description

Restrictions like physical distancing, closures of schools and businesses, and self-isolation have been key tools in flattening the COVID-19 curve. But these restrictions come with huge economic, social, and mental costs for individuals, for communities, and for businesses.

As jurisdictions the world over move to reopen education facilities, businesses, and public spaces, there are no comprehensive sources for data-driven insight that municipalities, provincial health authorities or businesses can use to forecast safe levels of interaction. While these sources exist in isolation, integration is missing and is either in short supply or even contradictory and this in turn erodes the confidence of decision makers.

Moreover, current measures have no built-in feedback on their effectiveness. Given all of the unknowns about the virus, it's tough to understand which measures will successfully keep the COVID-19 curve flattened and which may prove counterproductive. As Canada works to navigate what is quickly becoming a new reality, valid, reliable, comprehensive, and dynamic data is sorely needed.

Project Looking Glass will build a decision-support platform that uses predictive modelling to analyze policies and determine which can best protect Canadians in the new normal. Using the tool, decision makers will have the ability to say that policy x will have public health impact y and economic impact z.

Looking Glass is led by Kings Distributed Systems in partnership with Queen's University, Riskthinking.AI, Limestone Analytics, aiSight, Distributed Compute Labs, CENGN, Server Cloud Canada, The Dymond Group, AMPD, Krate Distributed Information Systems, Saskatchewan Polytechnic, the University of Saskatchewan, and multiple municipalities in Ontario, B.C., Newfoundland and Saskatchewan.

Decision makers and those advising them will, simply by accessing the Looking Glass webpage online, be able to engage with an interactive map of Canada. This map will be broken down by census region (municipality, county, or region) and each of these regions will be linked to demographic, economic, and COVID-19 case report data and analysis that is unique to their region. In addition, anonymized data will visualize people's movement between municipalities on this same application.

This web-based, open platform will let those tasked with making these important decisions input potential actions such as physical distancing measures, closing and re-opening of schools and businesses, widespread testing, and contact tracing. Looking Glass will then forecast through established epidemiological and economic models, potential outcomes such as infection rates and economic impact of those proposed policies.

Project Looking Glass will help decision makers target recovery policies in a way that maximizes positive impact while minimizing health risk and do this is in a way that is tailored to the unique circumstances of a particular community. The platform also has the potential to reach far beyond COVID-19 recovery. When fully developed, it could be adapted to test and inform the rollout of public health campaigns for vaccinations, or manage tick-borne diseases, as well as nutrition, education, and climate change initiatives. Looking Glass uses data and compute to enable confident decision making.