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Infrastructure ROI Comparisons

When looking at using infrastructure construction as economic stimulus, and in the context of a climate crisis, it's important that we look at funding municipal infrastructure projects that both give good bang for the buck economically and move our communities forward in addressing the climate crisis.

As we begin exiting the lockdown across the country, municipalities will be looking to the federal government to fast track projects to get people back to work. As well, the federal government has made a commitment to support Canadians and the economy in responding to the impacts of CoVID-19. The standard "go to" types of infrastructure projects usually revolve around large heavy construction projects. In the municipal context this is primarily roads and bridges.

But, as we look at the incredible infrastructure needs of communities, does building more roads and bridges actually make sense? Cities across the country have for years recognized that the pattern of development of the past 50 years cannot continue. The vast majority of city planners know that the current pattern of growth is simply unsustainable. It isn't sustainable environmentally, socially, or economically.

With that fundamental knowledge, cities have developed forward-looking strategic plans that identify different growth and mobility patterns. Denser, more diverse neighbourhoods, redevelopment of existing areas, and mixed uses are the order of the day for these plans. When people need to move around, the shift is consistently away from auto-centric design. Offering residents a wide variety of mobility choices; driving, biking, walking, and transit, is the desire of every city.

A strong Return on Investment should be another measure for choosing the right infrastructure projects. For this, not all types of infrastructure are equal. There is a wide range of research on the ROI of different types of infrastructure out there, and new ones being developed all the time. But, generally, when ROI is calculated for a construction project, the goal is to capture not only the direct jobs and economic uplift, but to quantify indirect returns as well. To truly capture the full ROI that affects government, one must include health benefits, environmental benefits, and social benefits.

Infrastructure generally: $1.43/dollar invested. Broadbent Institute 2015

Road Construction: $1.30 Conference Board of Canada, 2015

Transit: $3.37 CUTA 2010

Transit: $3.70 APTA 2014

Trees: $5.60 New York City, 2012

Trees: $8.00 Halifax Regional Municipality, 2013

Pedestrian & Cycling: $11.80 Alliance for People & Biking: 2012

Parks & Recreation: $7.00 Pennsylvania Dept of Conservation & Natural Resources, 2017

Parks & Recreation: 3.5/100,000 decreased mortality per $100 per capita increase.
National Institutes of Health, 2019

A note: none of these factor climate costs into their calculations. If we are to include GHG reduction & climate adaptation, then the ROI for roads goes down significantly while all other types will go up.

An April 2020 Smart Growth America report found that transit projects also created more jobs that other types of projects.

By a large margin, the greatest ROI is in pedestrian and cycling infrastructure. The infrastructure that addresses city planning for the future is pedestrian and cycling. And the infrastructure that does the most to reduce transportation GHG's (the largest component in our cities emissions): pedestrian and cycling infrastructure.

We have been looking for that catalyst to snap us out of the status quo that we are stuck in, that we are all stuck in. The current pandemic can be that catalyst. We all know that "normal" is being redefined each day. That what people and communities value is being demonstrated on doorsteps, sidewalks, parks, bike lanes, balconies, and more each and every day.

We have the opportunity before us to take a step in the right direction. We are all primed for it.

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