

PERFORMANCE MEASUREMENT FRAMEWORK FOR SIPP'S SMART MOBILITY PROGRAM (SMP)

The following provides more details for the Performance Measurement Framework including the full description of each of the five outcome statements for SIPP's SMP proposal as part of Canada's Smart Cities Challenge. Each outcome theme is supported by preliminary, intermediate and long-term outcomes along with the key metrics (and data sources) that will be used to determine progress. This is followed by a more detailed description of these metrics and how they link to the indicators found in SIPP's Mobility Wellness Index (MWI). The MWI, referred to in SIPP's overarching Challenge Statement, is how the SMP is ultimately measured as all activities drive towards moving the Greater Victoria region towards improving mobility wellness by 20%. The MWI will contain a composite score (weighted average of 40 KPIs, 20 indicators across 6 theme areas. Theme note shown here: Policy & Governance (this theme of MWI is developed separately as it is used to measure other government investments and policies that drive improvements to mobility wellness that are not linked to SMP activities directly).

Theme	Preliminary outcomes	Intermediate outcomes	Long-term outcomes	Key Metrics	Data Sources
I - Convenience Outcome Statement: With more convenient, accessible multimodal transportation options enabled by smart technology, residents with access to convenient alternatives to single occupancy vehicles will increase by at least 20% by 2024.	Half of the participants in our co-design target groups with improved access to convenient alternatives to single-occupancy vehicles	Two-thirds of participants in our co-design target groups with improved access to convenient alternatives to single-occupancy vehicles	Users of MaaS and the Trip Planning and Payment Application with access to convenient alternatives to single occupancy vehicles will increase by at least 20% (compared to baseline)	<ul style="list-style-type: none"> • Perception of service and facility quality. • Average commute times • Share of population within 400m of a fixed route transit stop 	CRD OD Survey; BC Transit Customer Satisfaction Survey; Subjective Wellbeing Assessment Toolkit; BC Transit routes/stops; Statistics Canada (census population)

Convenience Metrics	Convenience Indicators			SMP Projects
	Freedom for non-drivers	Improve Reliability	Availability of dignified options	
Percentage of major employment centres serviced by frequent transit				Projects 1 & 2
Average transit density (e.g. TransitScore)				Projects 1, 2 & 3
Transit vs private car travel time ratio for selected origin-destination pairs				Projects 2 & 3
Average delay (min) for public transportation (subway, buses, trams)				Projects 2 & 3
Average peak period vehicle traffic speeds				Projects 1, 2 & 3
Trip Satisfaction and ease of experience				Projects 1, 2 & 3
Perception of quality of service and facilities (transit, shared and active modes)				Projects 1, 2 & 3

II - Affordability					
II - Affordability	Preliminary outcomes	Intermediate outcomes	Long-term outcomes	Key Metrics	Data Sources
<p>Outcome Statement: With improved multimodal transportation options and trip planning enabled by smart technology, residents will spend, on average, less than 10% of their annual household incomes on transportation by 2024.</p>	<p>Half of the participants in our co-design target groups will spend less on transportation compared to baseline (prior to participation)</p>	<p>Two-thirds of the participants in our co-design target groups will spend less on transportation compared to baseline (prior to participation)</p>	<p>Users of MaaS and the Trip Planning and Payment Application will spend, on average, less than 10% of their annual household incomes on transportation</p>	<ul style="list-style-type: none"> • Average trip costs • Percentage of household income spent on travel • Average cost of vehicle ownership 	<p>Calculation based on regional fuel costs, transit fares, and distances travelled; Statistics Canada (Household spending – Table: 11-10-022-01); ICBC</p>

Affordability Metrics	Affordability Indicators			SMP Projects
	Less money spent on travel	Value for money from users' POV	Cost effective from operator's POV	
Percentage of household income spent on travel				Projects 1, 2 & 3
Average spend on transportation for mobility impaired				Projects 1, 2 & 3
Average trip costs, based on observed trip patterns and modes used				Projects 2 & 3
Transit budget/ridership				Projects 2 & 3

III - Wellbeing	Preliminary outcomes	Intermediate outcomes	Long-term outcomes	Key Metrics	Data Sources
<p>Outcome Statement: With multimodal transportation options and planning enabled by smart technology, the number of daily trips made by active and healthy travel modes (i.e., walking, transit, cycling) will double by 2024 over the current baseline, and average levels of reported trip satisfaction in the region will rise 10%.</p>	<p>Half of participants in our co-design target groups will report an increase in the number of active and healthy trips and an increase in trip satisfaction (from baseline)</p>	<p>Two-thirds of participants in our co-design target groups will report an increase in the number of active and healthy trips and an increase in trip satisfaction (from baseline)</p>	<p>Users of MaaS and the Trip Planning and Payment Application will double their use of active and healthy travel modes over the current baseline, and average levels of reported trip satisfaction of these users will rise 10% (from baseline)</p>	<ul style="list-style-type: none"> • Share of daily trips made by active modes • Trip satisfaction and ease of experience • Citizen health • Subjective wellbeing assessment 	<p>CRD OD Survey; active tracking (smartphone or wearable); BC Ministry of Health; Subjective Wellbeing Survey</p>

Wellbeing Metrics	Wellbeing Indicators				SMP Projects
	Improved emotional health (in relation to daily travel)	Improved physical health (in relation to daily travel)	Inspire lifestyle and behaviour change	Decreased motor vehicle injuries and fatalities	
General life satisfaction among commuters					Project 3
Job satisfaction					Project 3
Citizen health (obesity rates)					Project 3
Citizen health (heart/lung disease)					Project 3
Share of daily trips made by active modes					Projects 2 & 3
Average daily distance walked per capita					Projects 2 & 3
Average daily distance cycled per capita					Projects 2 & 3
Motor vehicle fatalities per 100,000 population per year					Projects 1, 2 & 3

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Motor vehicle serious injuries per 100,000 population per year					Projects 1, 2 & 3
Cyclist fatalities per 100,000 population per year (motor-vehicle crash related)					Project 3
Cyclist serious injuries per 100,000 population per year (motor-vehicle crash related)					Project 3
Pedestrian vehicle fatalities per 100,000 population per year (motor-vehicle crash related)					Project 3
Pedestrian vehicle serious injuries per 100,000 population per year (motor-vehicle crash related)					Project 3

IV - Climate/Green Outcome Statement: Due to shifts in number of per capita daily trips taken with personal automobiles towards daily trips per capita taken with alternative travel modes, per capita vehicle fuel consumption will decrease by 15% by 2024.	Preliminary outcomes One-third of participants in our co-design target groups will decrease their fuel consumption by 15%	Intermediate outcomes Half of participants in our co-design target groups will decrease their fuel consumption by 15%	Long-term outcomes Half of the users of MaaS and the Trip Planning and Payment Application report their vehicle fuel consumption has dropped by 15% (compared to baseline)	Key Metrics <ul style="list-style-type: none"> • Annual fuel consumption per capita • Per-capita vehicle kilometres travelled by private vehicle • Active transport/transit mode share 	Data Sources SIPP calculation based on BC Transit routes/stops data, local municipality location data, and Statistics Canada population data
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Climate/Green Metrics	Climate/Green Indicators			SMP Projects
	Resource Efficiency	Cleaner Air	Citizen Engagement	
Per capita annual fuel consumption				Projects 1, 2 & 3
Average number of vehicles per household				Projects 1, 2 & 3
Air particulates and emissions / Air pollutant and GHG measurements				Project 3
Number of public transport trips per capita per year				Projects 2 & 3
Active transport mode share for commuting trips				Projects 2 & 3
Transit mode share for commuting trips				Projects 2 & 3
Vehicle kilometres travelled by private vehicle per capita				Projects 1, 2 & 3
Kms on active transport as proportion of total distance travelled, per year				Projects 2 & 3

<p>V - Inclusivity</p> <p>Outcome Statement: As a result of improved and more integrated multimodal transportation options and trip planning enabled by smart technology, 20% more low-income and/or marginalized residents will report improved access to their places of education, services and/or employment by 2024.</p>	<p>Preliminary outcomes</p> <p>Half of participants in our co-design target groups will report an increase in access to their places of education, services and/or employment</p>	<p>Intermediate outcomes</p> <p>Two-thirds of participants in our co-design target groups will report an increase in access to their places of education, services and/or employment (over baseline)</p>	<p>Long-term outcomes</p> <p>10% more low-income and/or marginalized residents will report improved access to their places of education, services and/or employment (from baseline)</p>	<p>Key Metrics</p> <ul style="list-style-type: none"> Population within 15, 30 and 60 minutes of nearest employment centre, education, hospital, or leisure centre by transit/walking; Proportion of vulnerable population within areas with medium to high transit density 	<p>Data Sources</p> <p>CRD OD Survey; BC Transit Customer Satisfaction Survey; Subjective Wellbeing Assessment Toolkit; BC Transit routes/stops; Statistics Canada (census population); Victoria Foundation</p>
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Inclusivity Metrics	Inclusivity Indicators			Supported Projects
	Connectivity	Accessibility	Reduced Disparity	
Population within x minutes of nearest hospital by transit/walking				Projects 1 & 2
Population within x minutes of nearest leisure centre, by transit/walking				Project 2
Average commute times				Projects 1, 2 & 3
Percentage of accessible bus stops in the network				Projects 2 & 3
Proportion of vulnerable population within areas with medium to high transit density				Projects 2 & 3
Income equality (Gini Index)				Project 3