# What is the Joint Regional Transportation Agency (JRTA)?



#### The JRTA

#### **Provincial Crown Corporation**

Created in Fall 2021 (Bill 61) to address transportation issues associated with rapid growth in Halifax and surrounding communities.

#### **Mission**

Championing regional collaboration to advance transportation solutions through joint planning, partnerships, data-driven analysis, and strategic investments.

#### Mandate

Plan for all modes of transportation consistent with the region's growth and development to ensure the safe, efficient, and coordinated movement of people and goods.

#### **Collaboration & Partners**

The first of its kind in Atlantic Canada, the JRTA sits in a unique position to work across jurisdictions and levels of government to take a comprehensive approach to transportation planning.

#### This includes our Core Partners:













Associate Partner:







### Why is transportation important?

Transportation plays a significant role in the day-to-day lives of all Nova Scotians.



It enables access to healthcare, education, and employment opportunities.



It allows for the movement of goods to support people and the economy.



It fosters independence and can help address issues of isolation and social and economic exclusion.

### Regional Transportation Plan



#### **About the Plan**

The Regional Transportation Plan, currently in development, will consider all modes of transportation that facilitate the movement of:





#### People

(walking/rolling, cycling, buses, ferries, trains, vehicles)





#### Goods

(trucks, trains, ships, planes)





As well as the associated **Infrastructure** (streets, active transportation facilities, highways, bridges, rail corridors, ports — marine, ground, air).

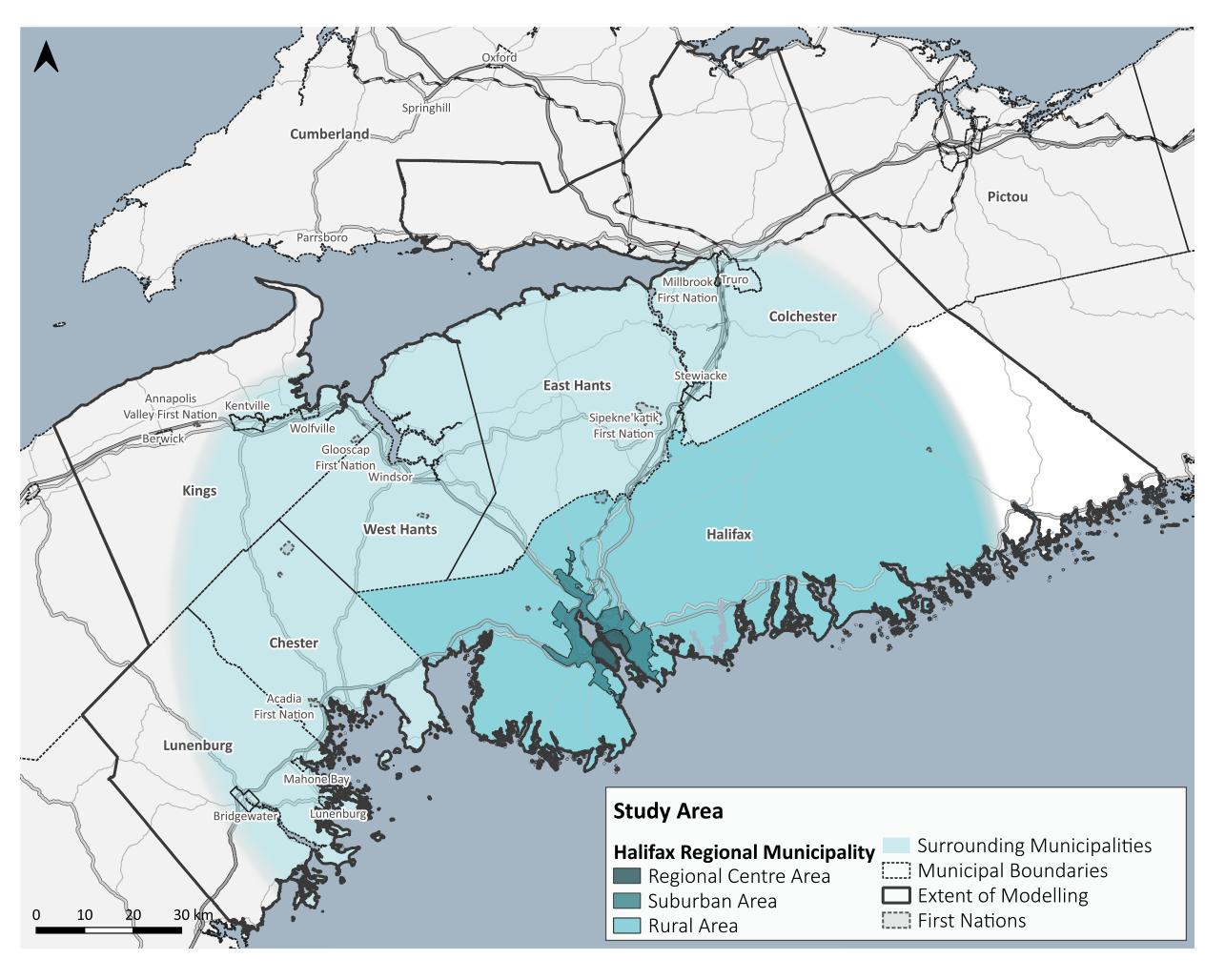
#### The Regional Transportation Plan will:

- establish a long-term, coordinated vision for a regional transportation system that makes sustainable growth and development possible.
- play a critical role in advancing broader Provincial Government initiatives to tackle climate change, support growth and economic development.
- improve the health, well-being, and quality of life of Nova Scotians.

The plan will also identify the projects and policies needed to meet the region's anticipated levels of growth in an efficient, cost-effective, and sustainable way.

The plan will focus on the safe and efficient movement of people and goods to, from, and throughout Halifax and surrounding communities (approximately one hour driving time from Halifax).

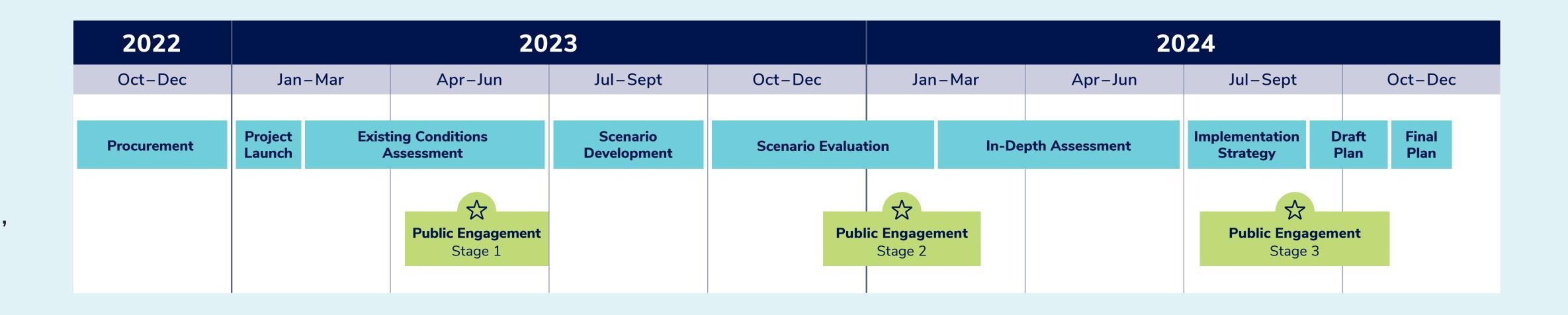
#### **Study Area**



#### **Schedule**

The plan is in development, with a target completion date of **November 2024**. The plan will provide both short- and long-term actions, taking us through the next 20 years and beyond.

Delivery of the plan is just the beginning—design, implementation and monitoring is all to come.



### Vision, Goals & Principles



#### Vision

Nova Scotians have a safe, efficient, equitable, and resilient regional transportation system. Our people and communities are healthy, connected, and prosperous, powering a strong regional economy.



#### Goals

What do we want the plan to achieve?



#### Strengthen regional connections

Travel between communities and to regional destinations, regardless of mode or trip purpose is safe, easy, and enjoyable. A realistic range of affordable and sustainable transportation options are available that lower household costs, emissions, and car dependency; reduce fatalities and injuries; and enhance social connectivity.



# **Enable efficient and sustainable goods movement**

Essential corridors for moving goods locally and regionally are developed, preserved, and well maintained to enable the reliable movement of goods and support economic development and trade.



# Lead strategic investments, alignment, and implementation

Infrastructure decision-making and service delivery is cost effective, integrated, and efficient. Actions included in the plan are ambitious yet achievable, maximizing their potential to be funded and built.



## Coordinate and collaborate on sustainable land use

All orders of government work to align transportation and land use across departments and initiatives. The regional transportation system supports environmentally and fiscally sustainable development, recognizing the different needs of health urban, suburban, and rural communities.



# Develop a future-ready regional transportation system

The transportation system is resilient and adaptable, able to respond to changing trends, uncertainty, and climate change. There is consideration for technological advancements, societal changes, and the long-term needs of the system.

### Principles

All aspects of the planning process are guided by six principles:

Accessibility • Equity • Sustainability • Collaboration • Resiliency • Well-being



### Scenario Planning



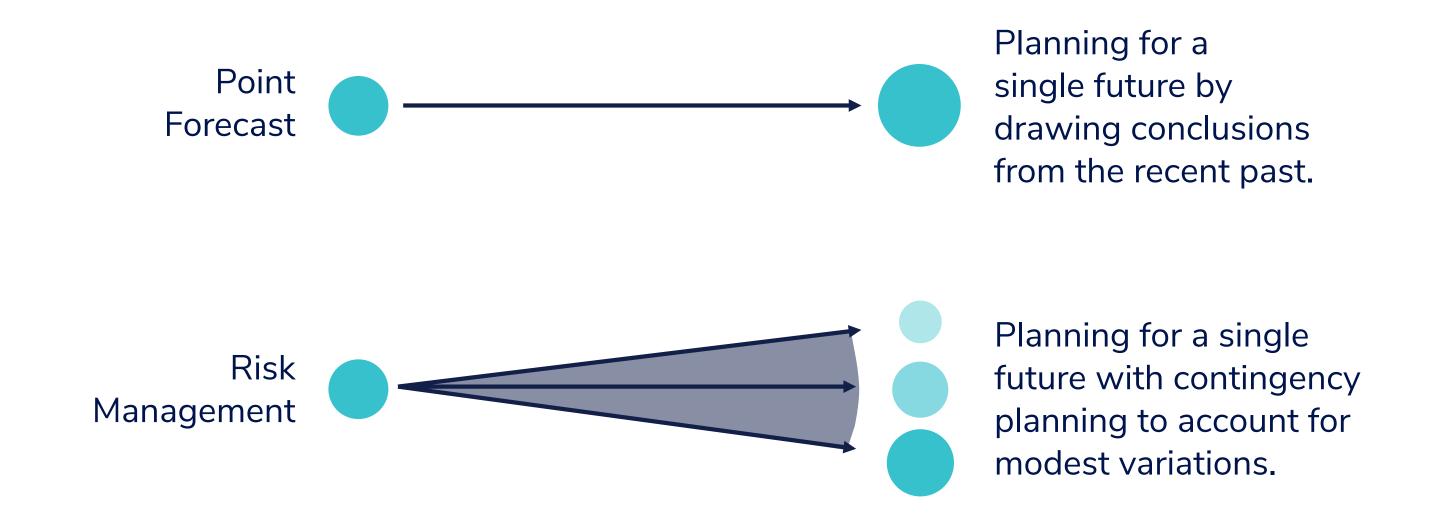
# The plan is focused on the long-term vision for the regional transportation system.



Traditionally in long-term planning, current trends would be used to predict future transportation needs. This approach assumes the future is much like the present.

But the world we live in is becoming more uncertain. Plans that have used this traditional approach are often quickly outdated.

Scenario Planning is a proven method to address this uncertainty.



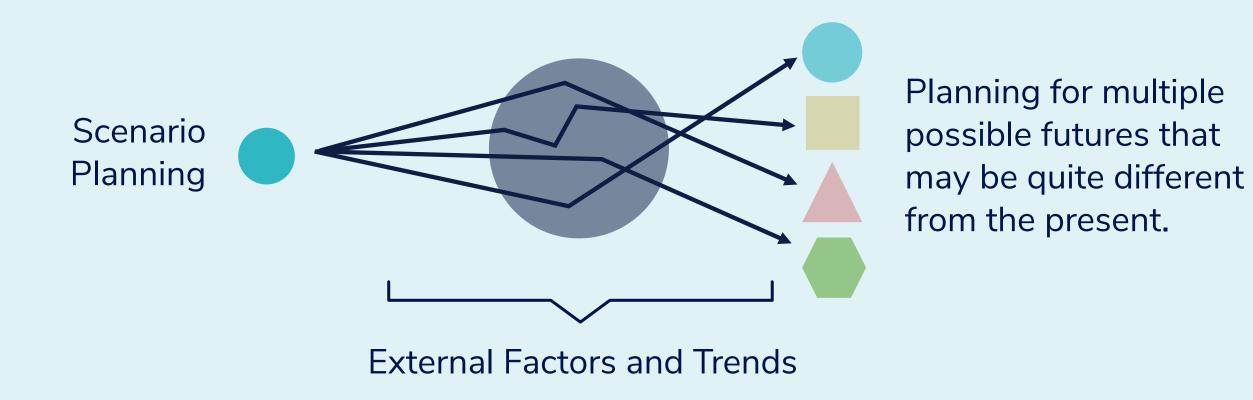


### Scenario Planning

Scenario Planning combines multiple variables and different sets of assumptions to imagine multiple potential future scenarios.

Scenarios represent a range of possible futures, some similar, and others very different from today.

This approach is used to stress the transportation system in different ways to help identify what projects and policies are the most effective in different conditions.

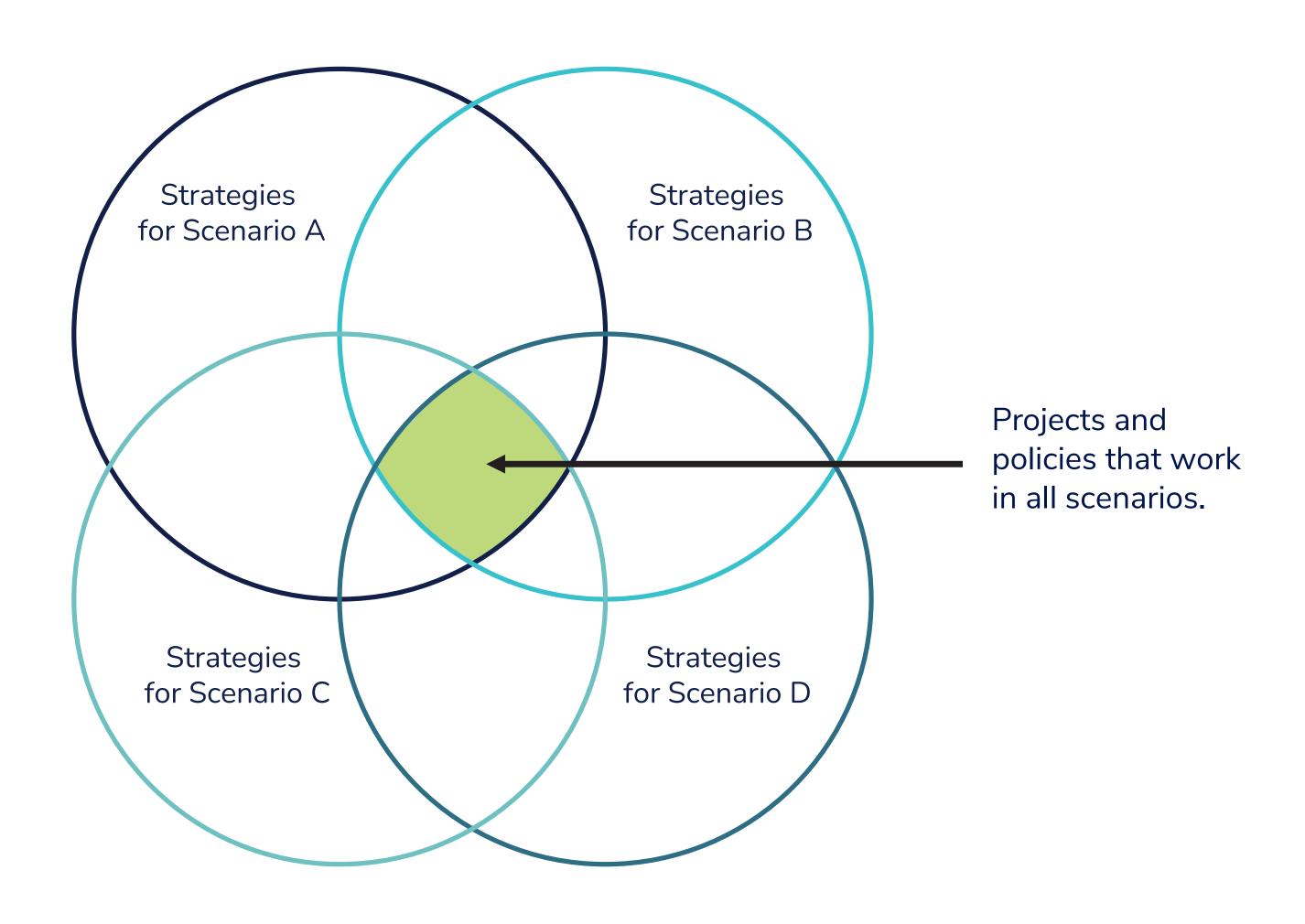


### Scenario Planning

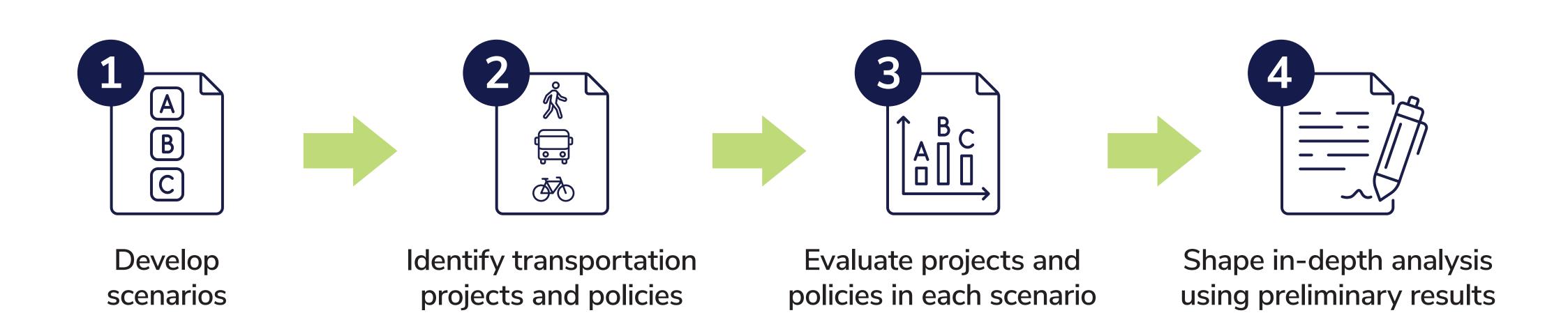


### Approach

Testing the transportation system in these different futures will help us figure out what strategies make the most sense, and will be most successful, across a range of possible futures.



#### **Process**



#### The scenarios are:



Fictional but plausible descriptions of the future



Designed to stress test the transportation system in different ways

#### The scenarios are <u>not</u>:



A desired future state or vision for the province



Trying to predict what will happen but instead cover a wider range of future possibilities

### Scenario Planning



#### **Plan Scenarios**

At a high level, each scenario is defined by two main features which stress the transportation system:



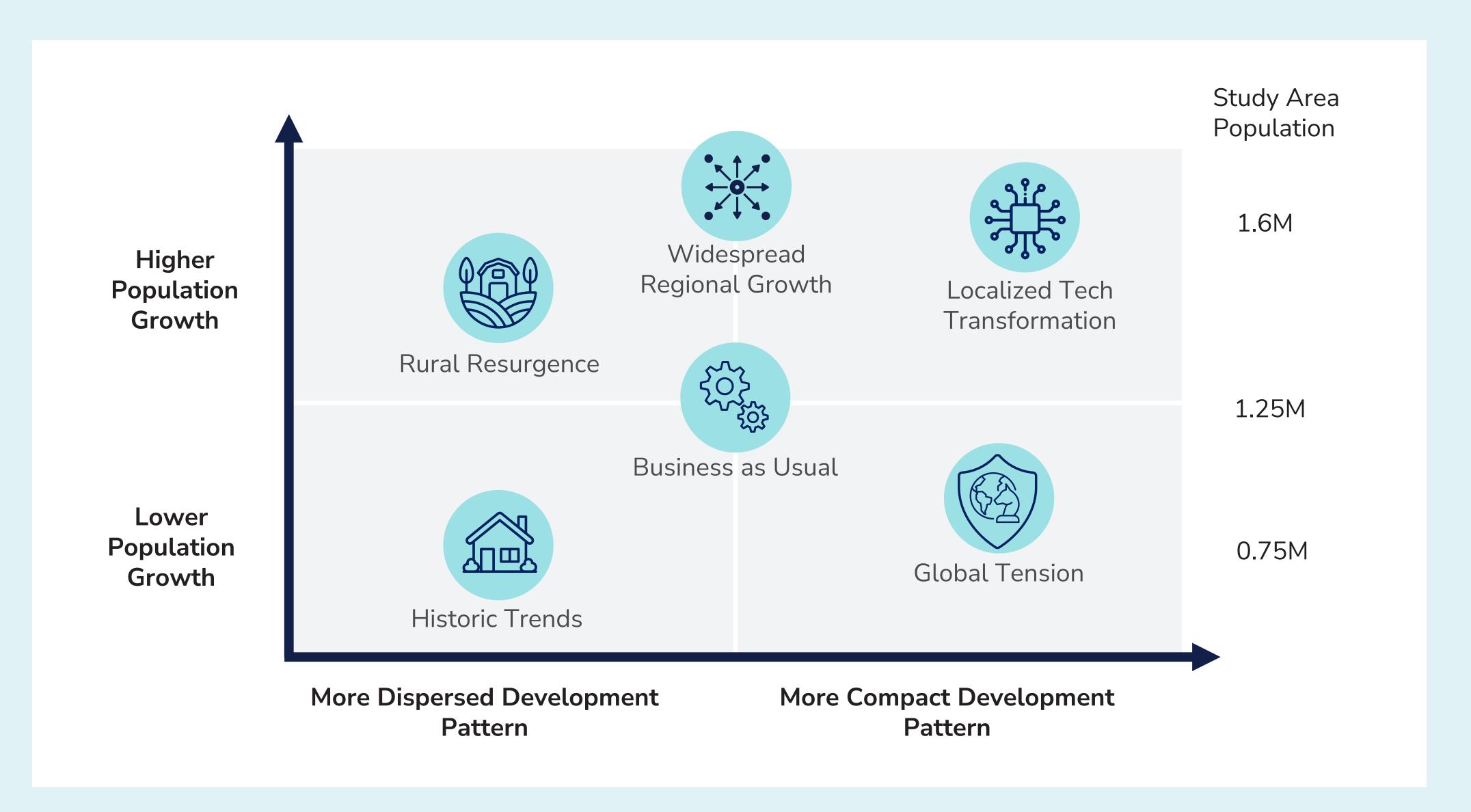
#### **Population Growth:**

Higher vs. lower absolute number of people



#### **Development Patterns:**

More dispersed vs. more compact



#### **Business as Usual:**

Is the most similar to today with high levels of growth. Other scenarios are compared back to it.

The other five scenarios each stretch the future in different ways using combinations of external factors and trends.

#### We have three high growth scenarios:

- Localized Tech Transformation
- Rural Resurgence
- Widespread Regional Growth

#### And two lower growth scenarios:

- Global Tension
- Historic Trends

# Some of the external factors and trends shaping the scenarios:

- Immigration
- Housing Location
- Trip Length
- Remote Work
- Job Automation
- Local Freight Demand
- Global Freight Demand
- Autonomous Vehicles
- Energy Production
- Energy Costs

### Conceptual Projects & Policies



#### **Thematic Bundles**

With input from our partners, working groups, and the public, we have developed a list of projects and policies that can respond to the challenges presented by external factors. For ease of modelling, those policy and infrastructure interventions have been grouped into thematic bundles. This table provides a sample of the projects and policies being evaluated.

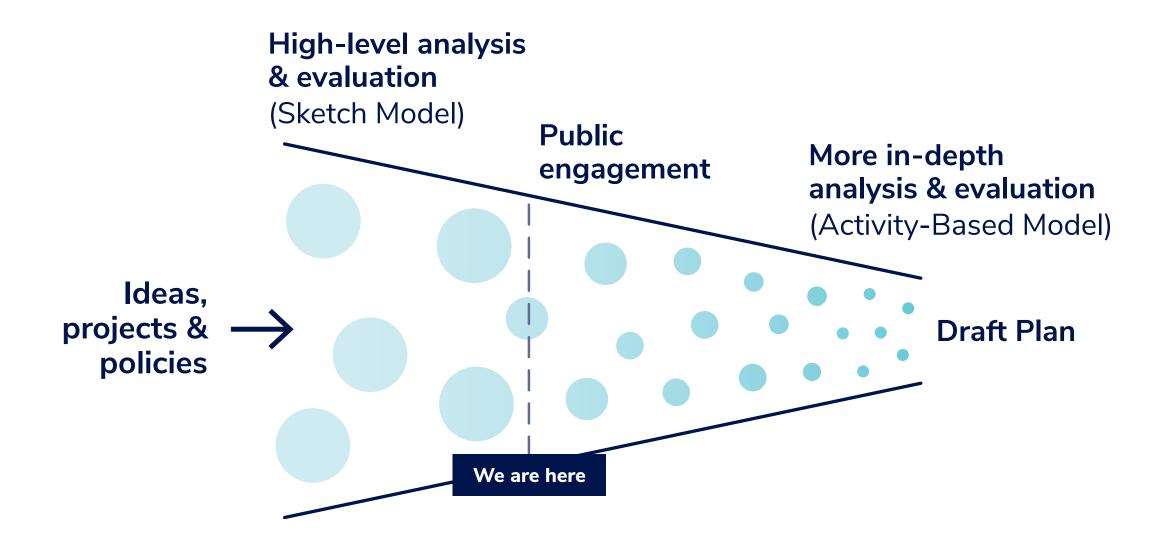
Bundle:	0. Committed Projects	1. Road Infrastructure Focus	2. Hybrid Focus with Road Infrastructure Emphasis	3. Policy Focus	4. Hybrid Focus with Transit & Active Transportation (AT) Emphasis	5. Transit & AT Focus
Definition:	Projects currently under construction, funded, or likely to be funded.	Major road projects mostly identified through previous plans and studies.	Some major road projects, combined with moderate transit and active transportation projects and transportation policies.	Less emphasis on road, transit or active transportation projects and more emphasis on transportation policies.	Transit and active transportation projects mostly identified through previous plans and studies, combined with moderate road projects and some transportation policies.	Major transit and active transportation projects, some which have been studied previously and others that have not.
Examples:	<ul> <li>Highway Twinning (101, 103, 107)</li> <li>Regional Centre AAA Improvements</li> <li>MacKay Bridge rehabilitation with active transportation (AT) facilities</li> <li>Port Rail improvements (goods movement)</li> </ul>	<ul> <li>MacKay Bridge replacement</li> <li>Third harbour crossing</li> <li>Highway 102 improvements</li> <li>Highway 113</li> <li>Highway 107 extension</li> <li>Beaverbank Bypass</li> </ul>	<ul> <li>MacKay Bridge replacement with AT facilities</li> <li>Highway 113</li> <li>Regional AT network improvements</li> <li>Shannon Park Ferry</li> <li>Regional transit service</li> <li>Enhanced transit service frequency and reliability</li> </ul>	<ul> <li>Increased cost of parking</li> <li>Reduced transit fares</li> <li>Promotion of e-bikes and e-scooters</li> <li>Bus Rapid Transit (BRT)</li> <li>Transit-oriented development</li> <li>Regional AT network improvements</li> <li>Enhanced transit service frequency and reliability</li> </ul>	<ul> <li>MacKay Bridge         replacement with         transit priority and AT</li> <li>Highway 102         improvements</li> <li>BRT</li> <li>Regional transit         service with transit         priority</li> <li>Regional AT network         improvements</li> <li>Enhanced transit         service frequency and         reliability</li> </ul>	<ul> <li>Third harbour crossing and MacKay Bridge replacement with transit priority and AT</li> <li>Additional ferry routes</li> <li>Urban Rapid Transit (LRT, BRT) including airport connection</li> <li>Regional commuter rail service</li> <li>Regional AT network improvements</li> <li>Enhanced transit service frequency and reliability</li> </ul>

### Modelling & Evaluation



### **Modelling Approach**

The approach uses a combination of high-level analysis, engagement, and more in-depth analysis to evaluate ideas, projects and policies.



#### **High-level Analysis**

# A sketch model is a simplified travel demand tool that:



Approximates long-term impacts of demographic and behaviour changes



Overlays new trends on top of planned growth



Is flexible to test a wide variety of options quickly and efficiently



Can consider impacts of speculative technology



Estimates travel demand in terms of trips between large-scale megazones

### **Evaluation**

#### Measures (simplified list)

- Active Transportation & Transit Mode Share
- Average Travel Time
- Access to Freight Generators
- Access to Employment
- Average Trip Distance
- Time Lost to Collisions
- Greenhouse Gas Emissions

#### Goals



Regional Connectivity



Efficient and Sustainable Goods Movement



Cost-Effective, Integrated, and Efficient



Environmentally Sustainable and Land-Use Aligned



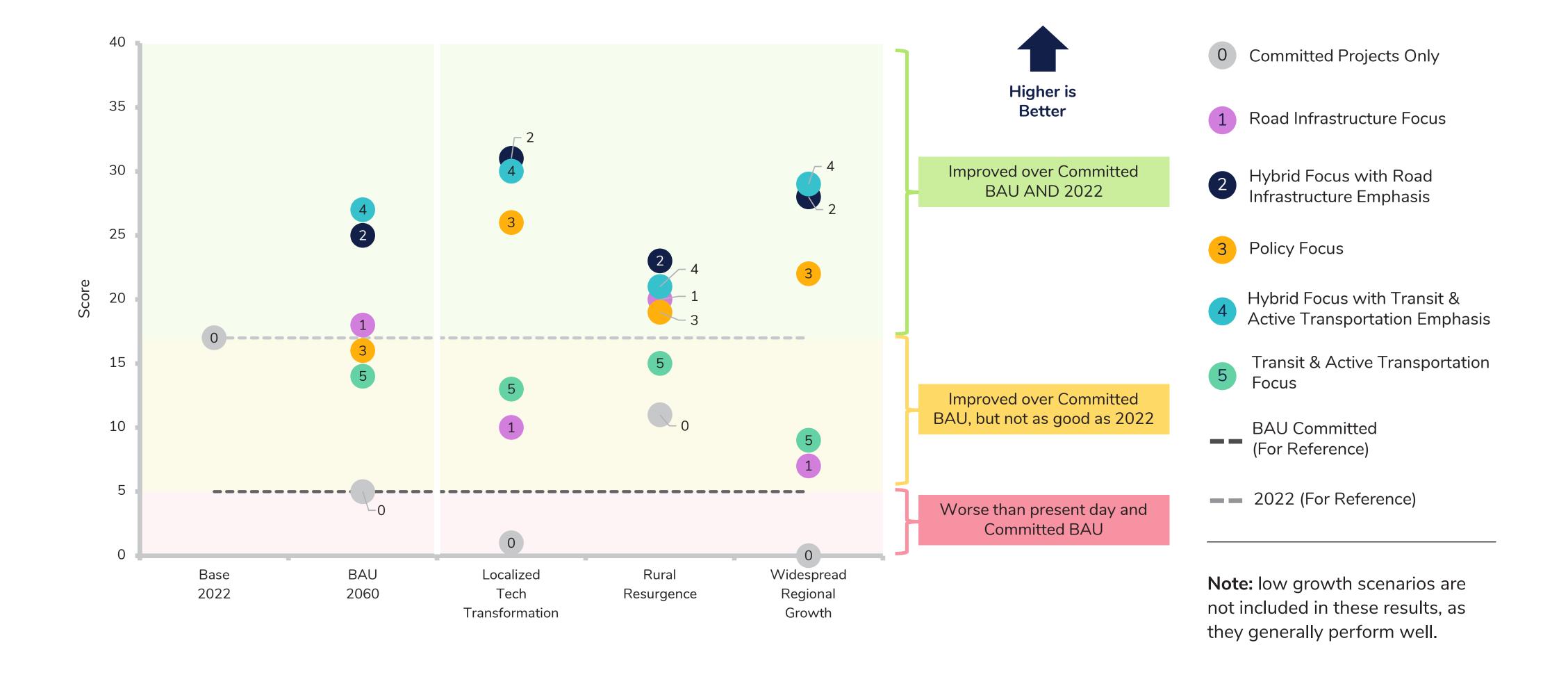
Resilient and Adaptable

Combined
Score



### Preliminary Results





#### **Key Takeaways**

#### **Bundle Performance**

- There is no one solution. Bundles 1 and 5 are not as effective as the multi-pronged Bundles 2, 3, and 4, though this does vary by location.
- Bundles 2, 3, and 4 are more impactful as policy solutions have more significant, network-wide impacts compared to infrastructure projects, whose impacts are more localized.
- Committed projects only are not enough to achieve plan goals.

#### **Other Considerations**

- Opportunity for more active transportation trips.
- Effectiveness of high order transit depends on strength of local transit connections and development patterns.
- Autonomous vehicles have significant impacts on congestion in Local Tech Transformation & Widespread Regional Growth Scenarios (even with new infrastructure).

### **Next Steps**



In-Depth Analysis
Continued evaluation
of projects and policies.



Implementation Strategy

Exploring funding models and partnerships.



