



REGIONAL CONNECTORS STUDY

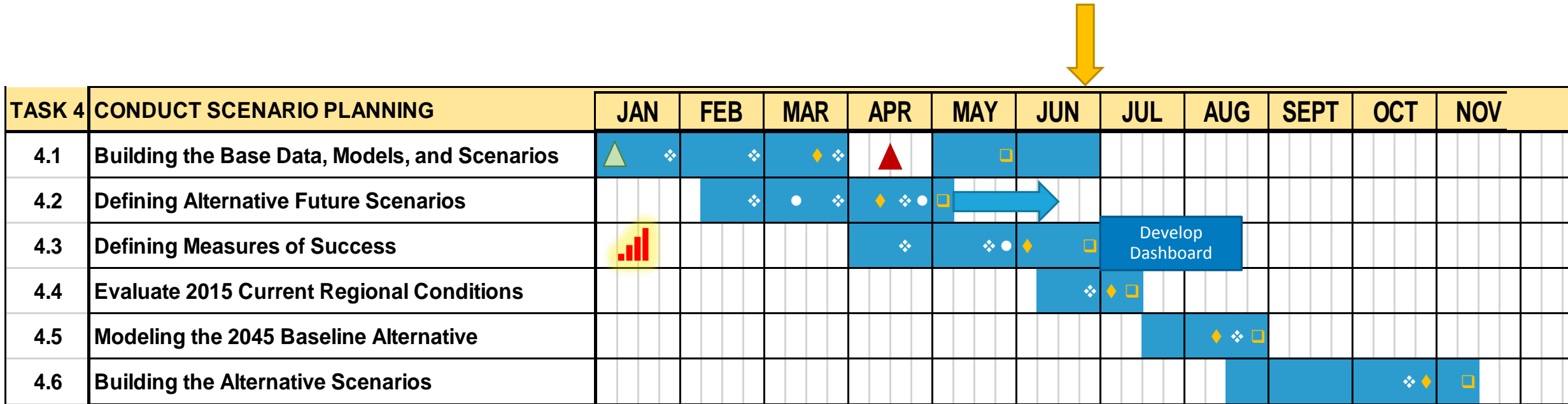
SCENARIO PLANNING WEBINAR #7

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INTERNATIONAL

Agenda

- Recap of Suitability in the Land Use Modeling
- How Suitability Factors Relate to Scenarios
- Suitability Factors and Data Needs
- Data needs for performance measures
- Next Steps

Overview slide – where are we now

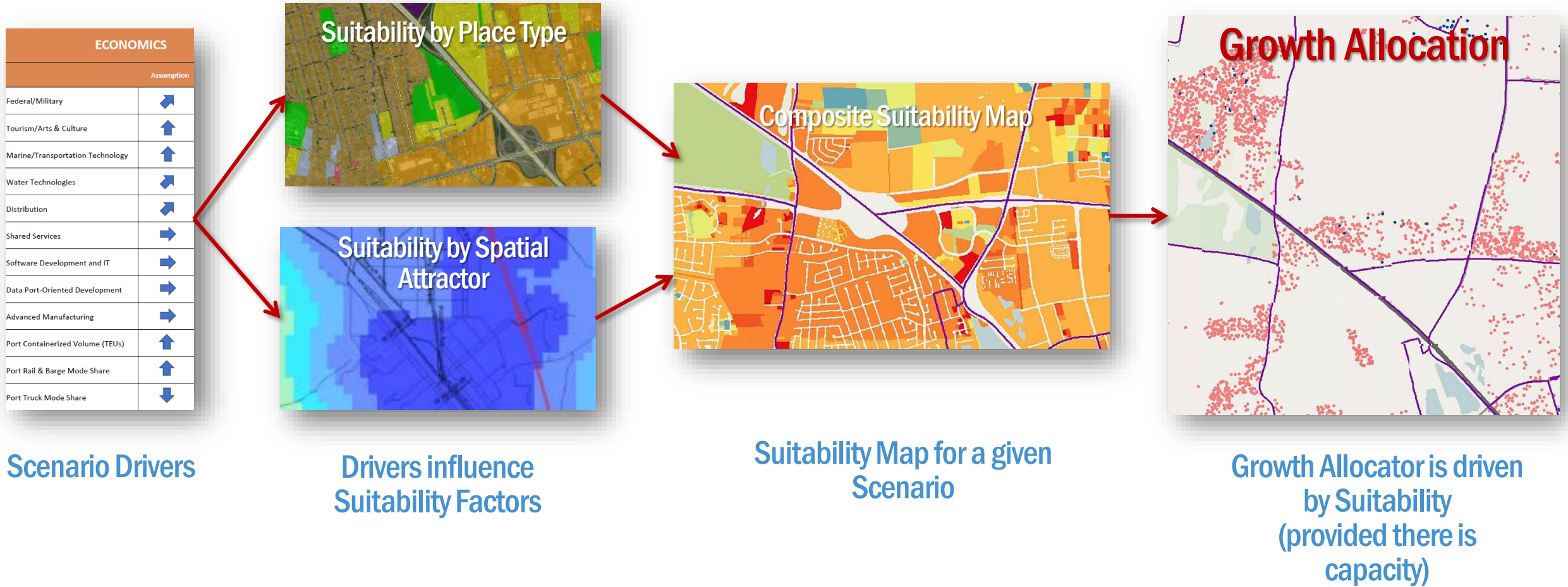


- Scenario Narratives, Performance Measures and Greater Growth amt to Steering Committee 7/9
- Focusing on development of land use model Suitability Factors and performance dashboard

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RECAP OF SUITABILITY FACTORS IN LAND USE MODELING

How Drivers Influence Growth Allocations



Using Suitability in the Model

Assumptions

Graphical Tabular

Scenario GG Urban Centers

Use MU Commercial Place Type ☒ Yes ☐ No

MU Commercial Place Type Weight 5.0

Use MU Residential Place Type ☒ Yes ☐ No

MU Residential Place Type Weight 5.0

Use Transit Proximity ☒ Yes ☐ No

Transit Proximity Weight 5.0

Use Large Devt Parcels ☒ Yes ☐ No

Large Devt Parcels Weight 5.0

Use Public Utility Availability ☒ Yes ☐ No

Public Utility Availability Weight 5.0

Suitability Factors can be turned off/on and “weighted”



Place Type Suitability can be set for any Place Type:



Spatial Suitability examples:

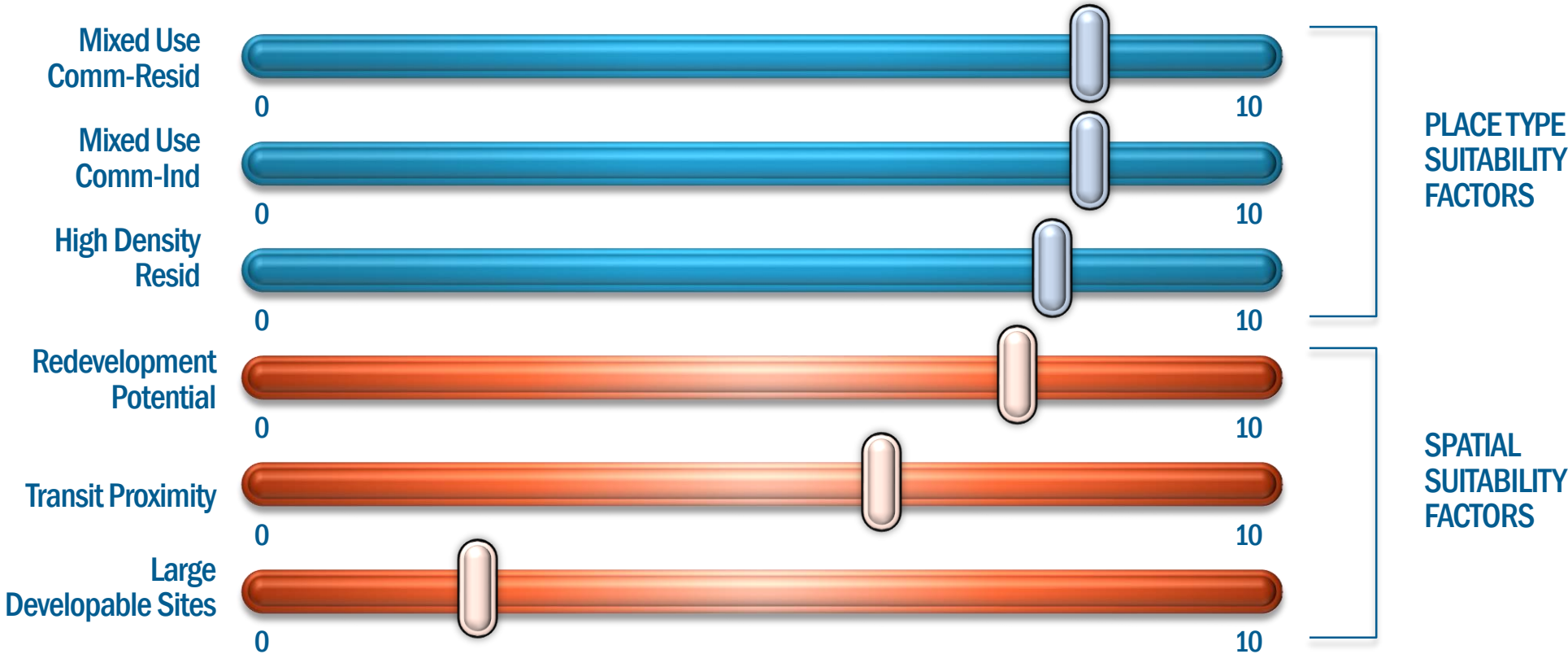
- Transit Proximity
- Public Utilities
- Large Developable Sites
- Redevelopment Potential
- Accessibility to Employment

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HOW SUITABILITY RELATES TO THE SCENARIO NARRATIVES

Suitability Factor Example Deployment

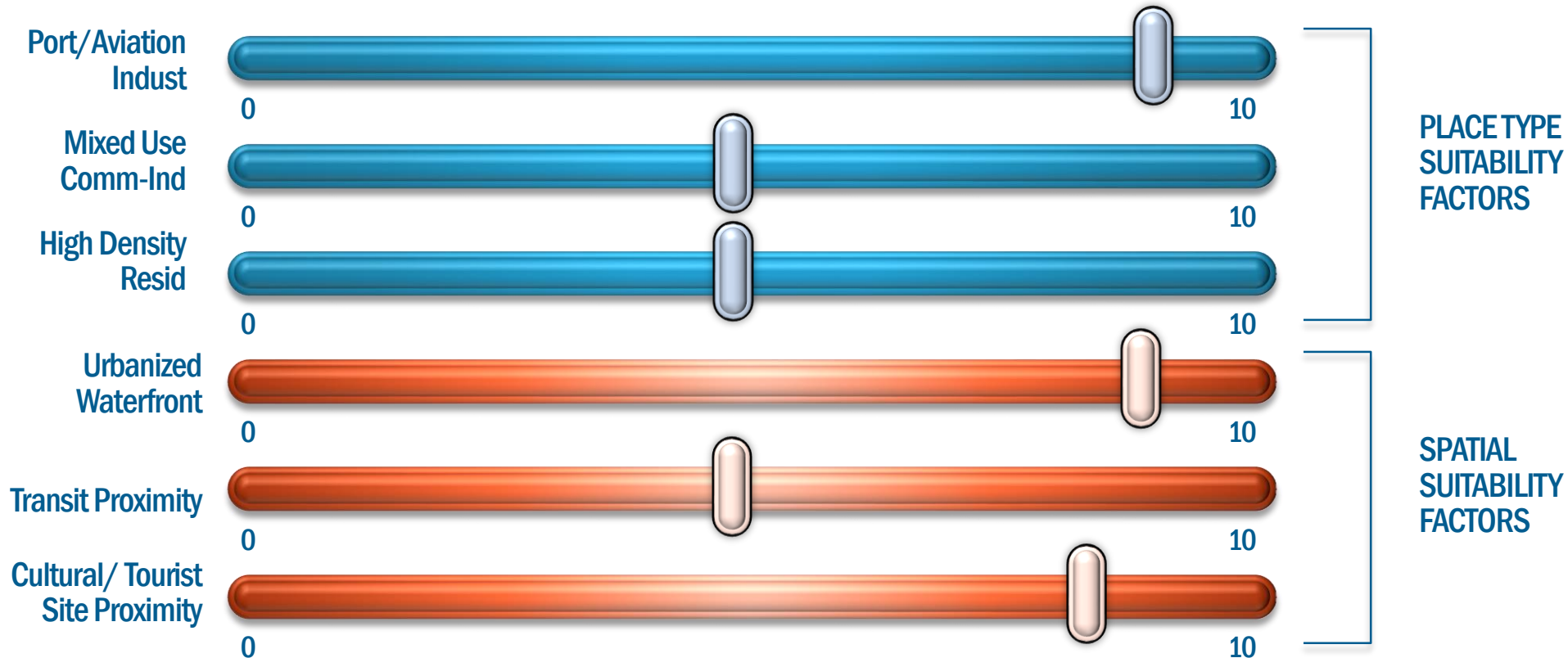
“Greater Growth in Urban Centers”



NOTES: Slider Bar values are hypothetical and for illustration purposes only. Suitability Factors are determined separately for job and population growth.

Suitability Factor Example Deployment

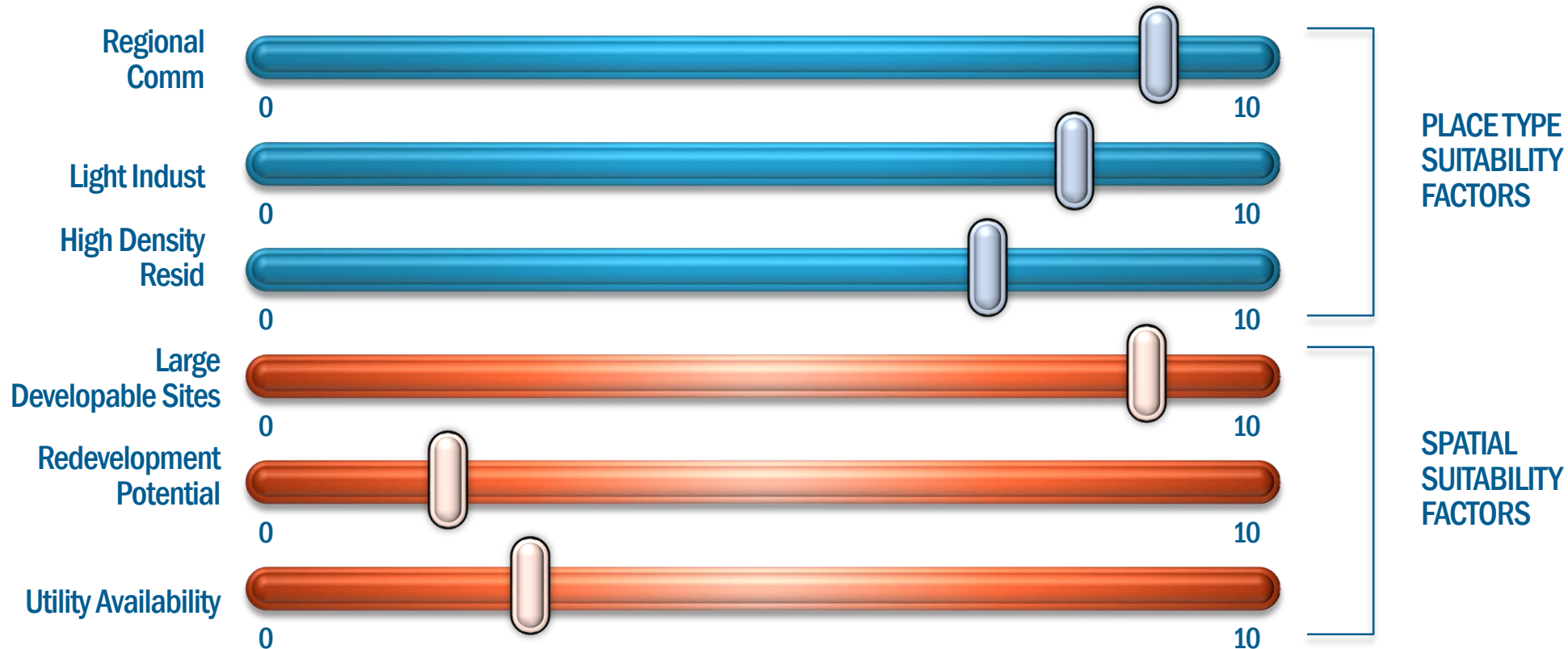
"Greater Growth on the Water"



NOTES: Slider Bar values are hypothetical and for illustration purposes only. Suitability Factors are determined separately for job and population growth.

Suitability Factor Example Deployment

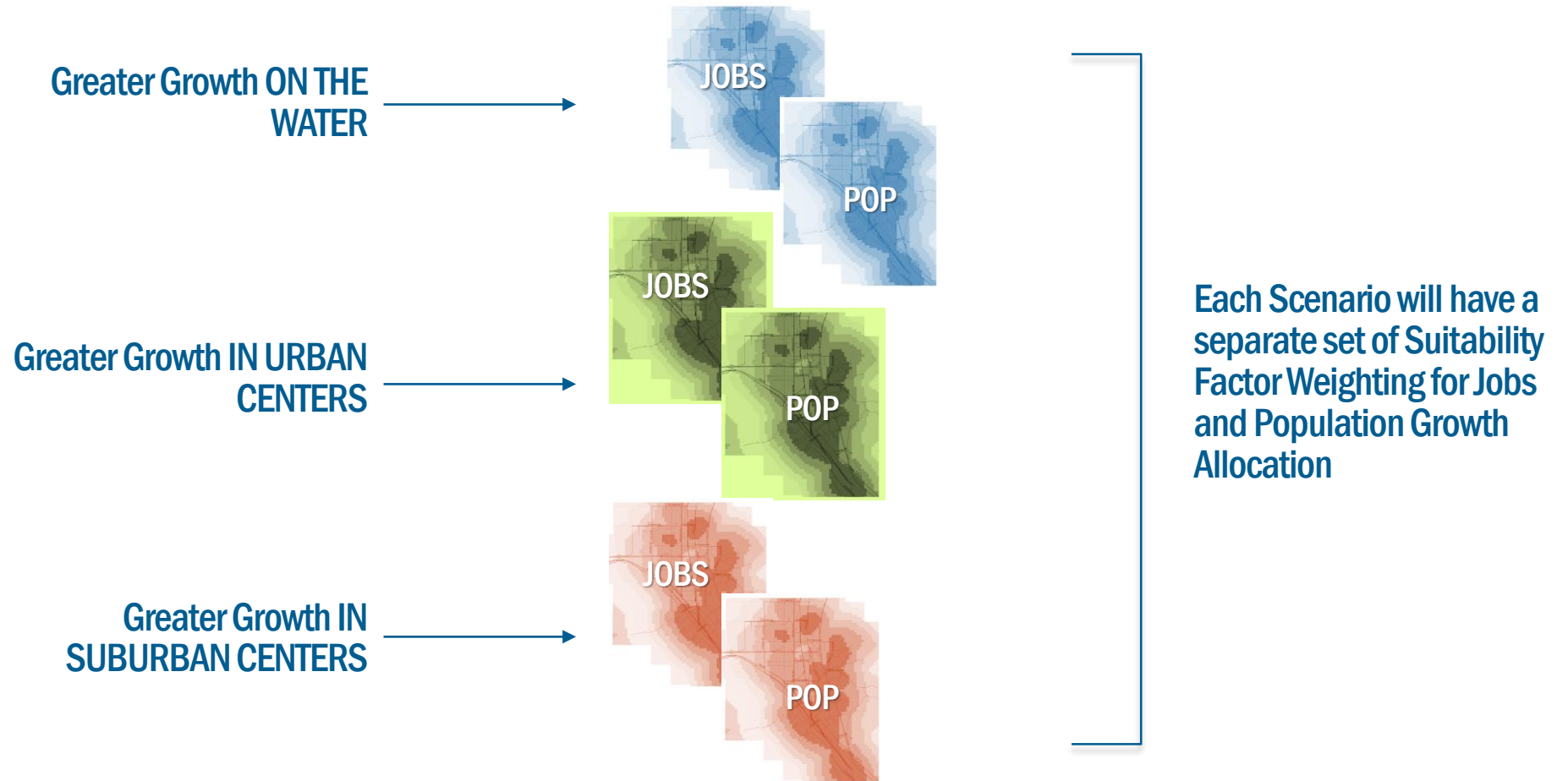
"Greater Growth in Suburban Centers"



NOTES: Slider Bar values are hypothetical and for illustration purposes only. Suitability Factors are determined separately for job and population growth.

Suitability “Map” Deployment

Six separate Suitability “Maps”



Suitability Factor Deployment Sequence

Working Group
Recommendations
to SC for July 9 Mtg



- Determination of the Greater Growth Control Totals
- Affirmation of the Scenario Narratives
- General affirmation of the Goals, Objectives & Performance Measures

STARTED



- Obtaining Datasets needed for Suitability

THIS SUMMER



- Building Greater Growth Scenarios using Suitability

THIS FALL



- Potential for “Tweaking” of Suitability to better match and differentiate Scenario Narratives
- Draft Land Use Modeling / TDM Results for Review
- Final Land Use Model runs to go into TDM & TREDIS

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DRAFT (SPATIAL) SUITABILITY FACTORS AND DATA NEEDS

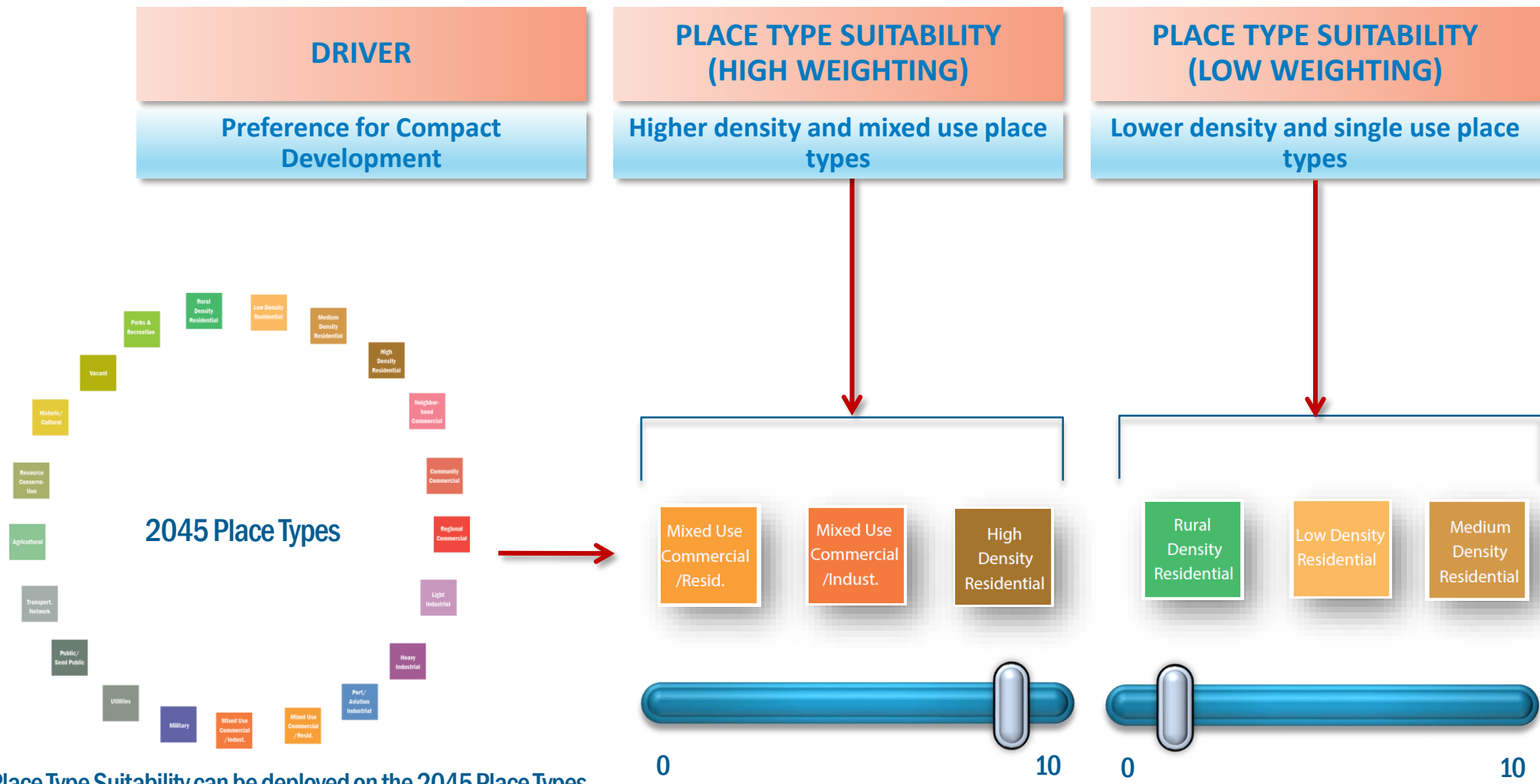
Spatial Suitability Factors & Datasets

Current Data Needs for Sample of Suitability Factors

DRIVER(S)	SUITABILITY FACTOR	DATASET	DATA SOURCE
Marine / Transportation Technology	Port or Shipbuilding Facilities	Parcels with Port/Shipbuilding	HRTPO
Urbanization on Water	Urbanized Waterfront	Chesapeake Bay IDA	Localities via HRPDC Chesapeake Bay Pres. Area Working Group
Tourism, Arts & Culture	Cultural / Tourist Attraction Sites	Point or Parcel Data for Sites	HRTPO/Localities
Active Transportation Propensity	Active Transportation Proximity	TPO dataset on Active Transp. Facilities	HRTPO
Urbanization	Redevelopment Potential	Assessed Value of Land & Improvements	HRGEO / Localities
Dispersion of Employment/ Transportation Industries	Large Developable Sites	Parcel Data	HRPDC
Dispersion of Housing / Employment	Major Roadway Proximity	STRAHNET Roads	HRGEO

Need Data

Reminder: Suitability is also Driven by Place Type



Note: Place Type Suitability can be deployed on the 2045 Place Types alone without the need to use the Greater Growth Place Types

Reminder: How Suitability Drives Growth Allocations

ECONOMICS	
Assumption	
Federal/Military	➡
Tourism/Arts & Culture	⬆
Marine/Transportation Technology	⬆
Water Technologies	➡
Distribution	➡
Shared Services	➡
Software Development and IT	➡
Data Port-Oriented Development	➡
Advanced Manufacturing	➡
Port Containerized Volume (TEUs)	⬆
Port Rail & Barge Mode Share	⬆
Port Truck Mode Share	⬇

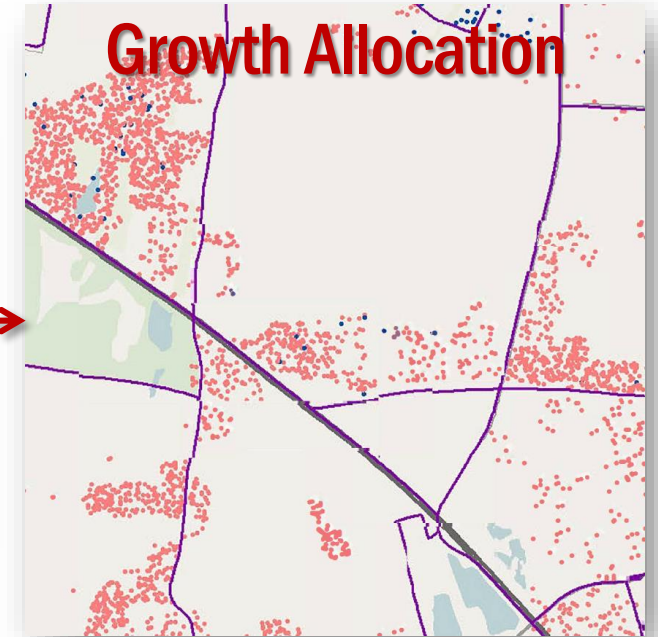
Scenario Drivers



Drivers influence Suitability Factors

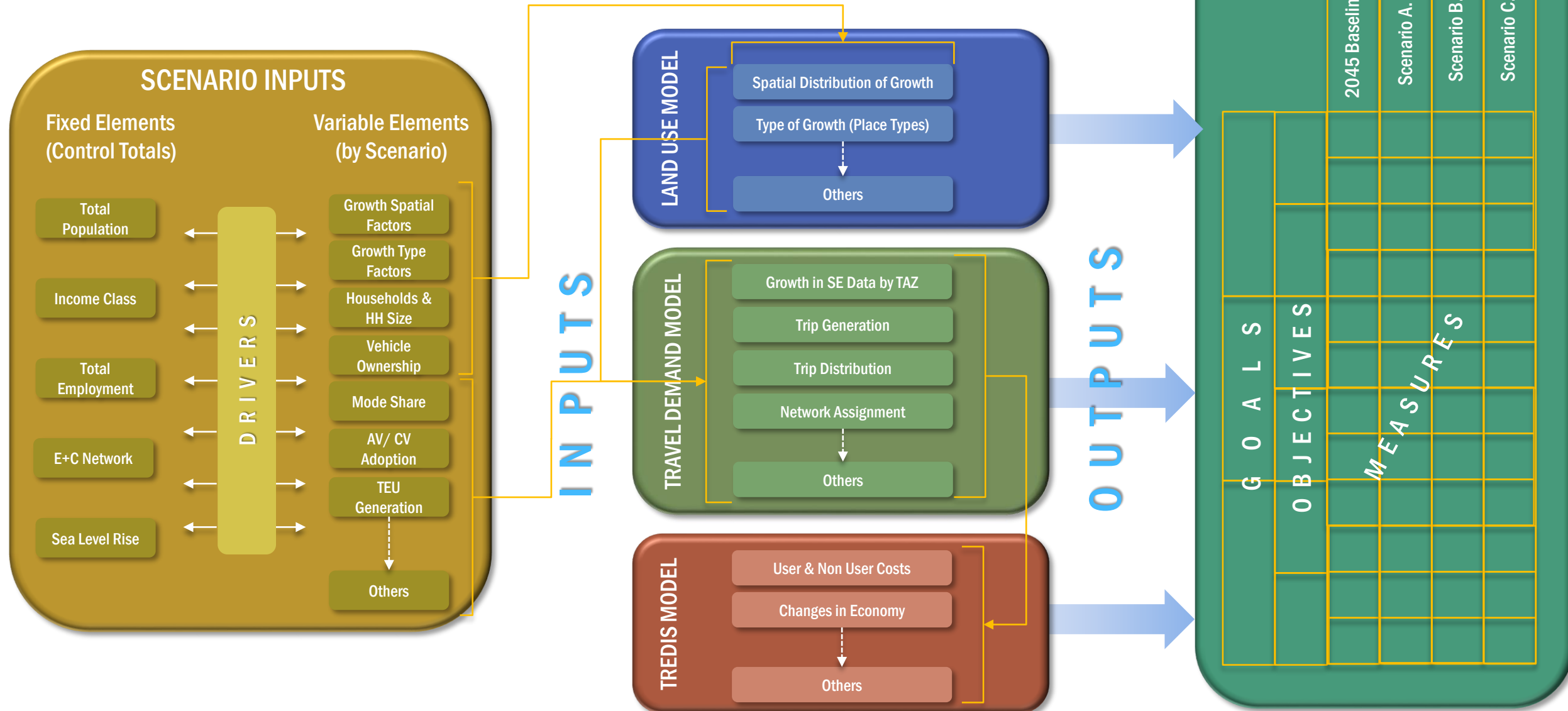


Suitability Map for a given Scenario



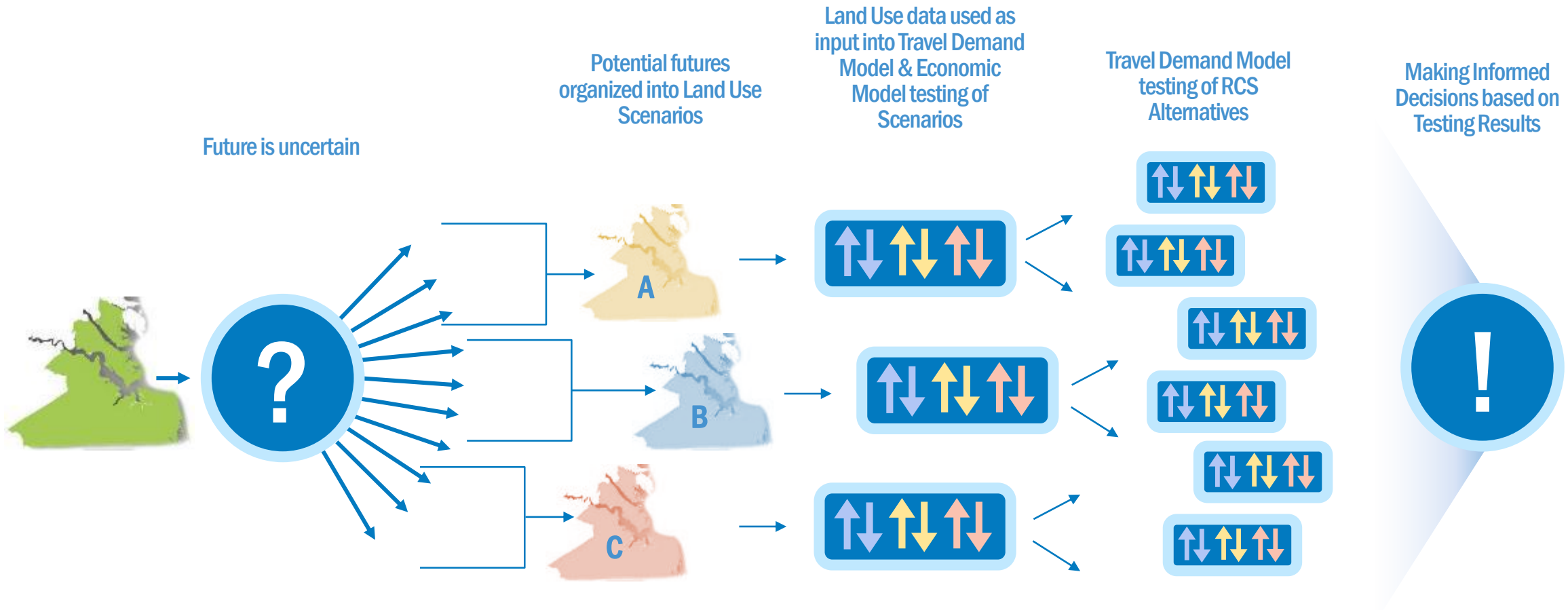
Growth Allocator is driven by Suitability (provided there is capacity)

Modeling the Scenarios



Reminder: Exploratory Scenario Planning

- The purpose of Scenario Planning is to have plausible alternative futures against which to test Transportation Alternatives



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ADDRESSING DATA NEEDS FOR PERFORMANCE MEASURES

Some Performance Measures Require Reference Data

PERFORMANCE MEASURE(S)	DATASET	DATA SOURCE
Several measures specific to freight	Freight Network	USDOT/HRTPO
Traffic volumes at at-grade rail crossings	At-Grade Rail Crossing Locations	FRA
Accessibility to major tourist attractions	Major tourist attractions (incl. cultural)	HRTPO – same as for LUM suitability factor
Bottlenecks on identified evacuation routes	Evacuation Routes	HRTPO

Some Performance Measures Require Reference Data

PERFORMANCE MEASURE(S)	DATASET	DATA SOURCE
Bottlenecks on network serving military functions	"Military Serving Network"	HRGEO
Transportation network impact from flood-prone conditions	Sea Level Rise and static storm surge level	NOAA Data/HRPDC
	Elevation-based GIS layer of transportation network	VDOT?

Next Steps

- July 9th Steering Committee meeting affirmation of
 - Scenario Narratives
 - Greater Growth Control Total
 - Goals, Objectives and Performance Measures
- July 12th Webinar (if needed) – Any final update on the model sets
- Next steps
 - Develop performance dashboard
 - Populate and test the greater growth land use model
 - Begin travel demand model review and preparation
 - Develop technology components of travel demand model for scenario runs