

# ***Oregon Sustainable Transportation Initiative***

## ***Metro Climate Smart Communities***

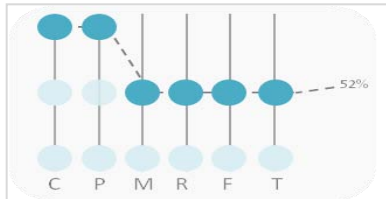
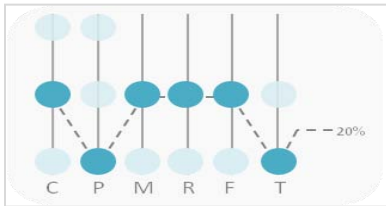
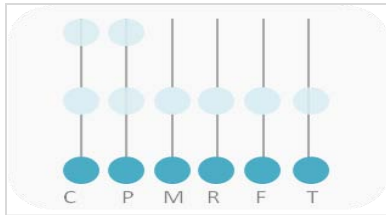
Clackamas County Public Advisory Committee

February 28, 2012

Mike Hogle, Research Director

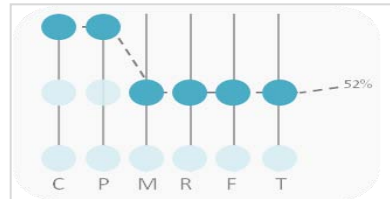
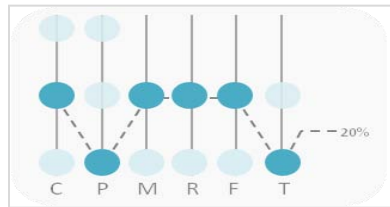
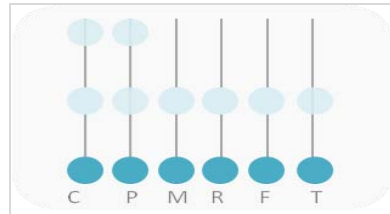


# Presentation Overview – *State Activities*



- Describe legislative requirements
- Overview OSTI & Statewide Transportation Strategy

# Presentation Overview – *Metro Activities*



- Describe targets
- Metro's scenario planning approach
- Identify best greenhouse gas reduction strategies
- Evaluating benefits & impacts
- What's next

# Mandated state climate work

## HB 2001 and SB 1059



- **Called for statewide transportation strategy**
- Set GHG targets for light duty vehicles (<10,000 lbs.) in metro areas
  - Estimate future vehicle & fuel technology
- Develop scenario guidelines & toolkit
- Public outreach campaign
- **Metro scenario planning (light duty vehicles) to meet GHG target**
- Update reports to Legislature

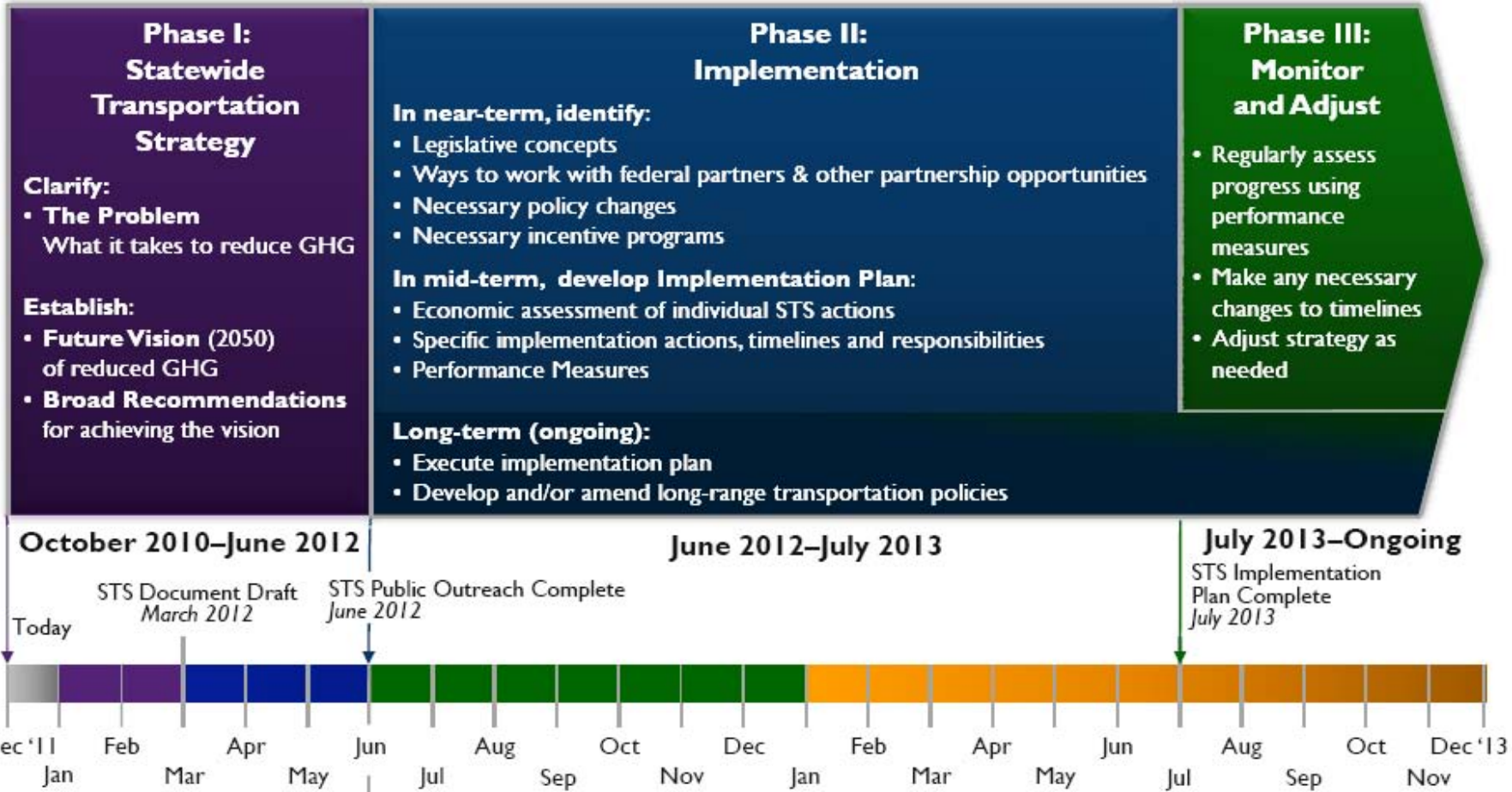




*OREGON SUSTAINABLE TRANSPORTATION INITIATIVE*

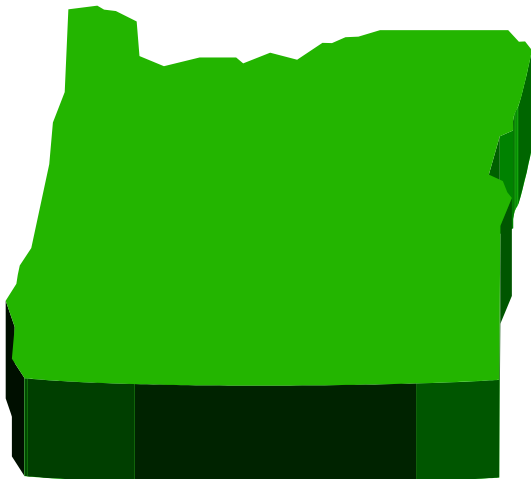
# Overview of the Statewide Transportation Strategy

More information: <http://www.oregon.gov/ODOT/TD/OSTI/>



# What is the STS?

Statewide Scenario Plan



Looks at all parts of the transportation system



Look into the future



*How do we substantially reduce transportation-related GHG?*

Out to 2050





# What is the STS?



- Gives us the opportunity to look at **unknowns**. Examples:
  - fuel price
  - fleet mix
  - population
- Allows us to develop **scenarios** and test transportation and land use options to see if they move us in the direction we want to go and are resilient to unknowns. We can look at actions like:
  - changes to land use
  - expanded transportation choices
  - advances in system and vehicle technology
- Test the draft scenarios against the **Evaluation Criteria**:
  - GHG Emissions
  - Energy Consumption
  - Travel and System Performance
  - Economic Impact
  - Land Use and Resource Impacts
  - Public Health Impacts
  - Infrastructure and Implementation Costs
  - Potential Implementation Risks

# Outcomes: Broad Vision

## **Broad vision for 2050**

Description of what our future could look like and the benefits of getting there – designed to generate interest about what the future could be

### Examples:

More fuel efficient and alternative energy vehicles (e.g. electric cars, freight trucks powered by CNG, etc).

- *Personal cost savings*
- *Less dependence on petroleum-based fuels*

Increased transit service, and more biking and walking facilities

- *Better transportation options*
- *Promotes more active transportation and healthier lifestyles*

More compact mixed use neighborhoods

- *Increased livability – more within walking or transit distance)*





# Outcomes: What shows promise

## **Recommendations for how to get there**

Description of things that can be done that modeling and analysis show as promising for reducing GHG emissions.

### **Example:**

#### **Mode Shift for Short Single-Occupant Vehicle (SOV) Trips**

- Encourage local trips, totaling six miles or less round trip, to shift from single-occupant vehicle (SOV) to bike, walk, or other zero emission modes.
  - Promote bike-share and bike parking programs
  - Build infrastructure to facilitate and support bicycling or walking and development of walkable mixed-use neighborhoods
  - Promote technological innovations making zero emission travel easier (e.g. electric bikes and neighborhood electric vehicles)
  - Promote safety for biking and walking (signs, lighted paths, etc)

# Outcomes: Level of Effort

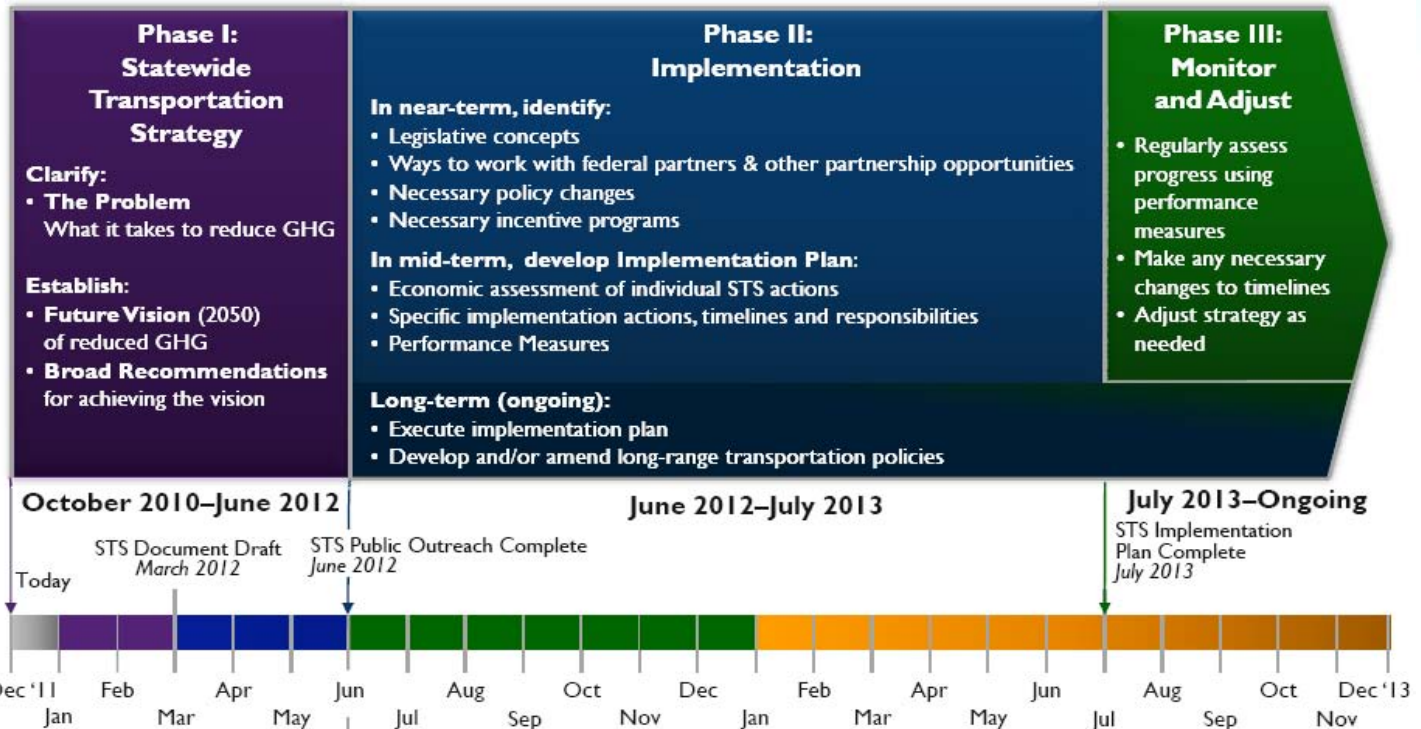
## **Information on the level of effort needed to help achieve Oregon's Goals**

Description of how hard each strategy would have to be pushed (*what it would take*) in order for transportation to aid the State in achieving its goal of reducing GHG 75% below 1990 levels by 2050.

## **Considers short, medium and long term implementation time frames**

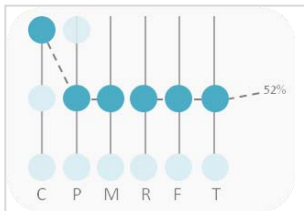
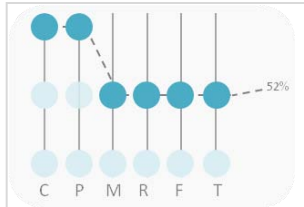
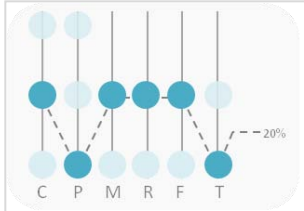
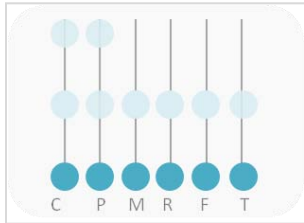
- Increase the number of lower-emission vehicles in Oregon
- Increase the number of urban households who live in compact, mixed-use neighborhoods
- In the long-term, maximum deployment of ITS operation programs occurs in urban areas
- Increase the number of single-occupant (SOV) trips in Oregon to shift to non-single-occupant vehicle trips

# Phases of the STS



- Phase I: The STS
  - In July, the STS will go to OTC for endorsement
  - Statewide passenger, commercial/freight, air
- Phase II: Implementation
  - Assess economic impacts
  - Develop specific actions, recommended legislative policy changes, etc.
- Phase III: Monitor and Adjust

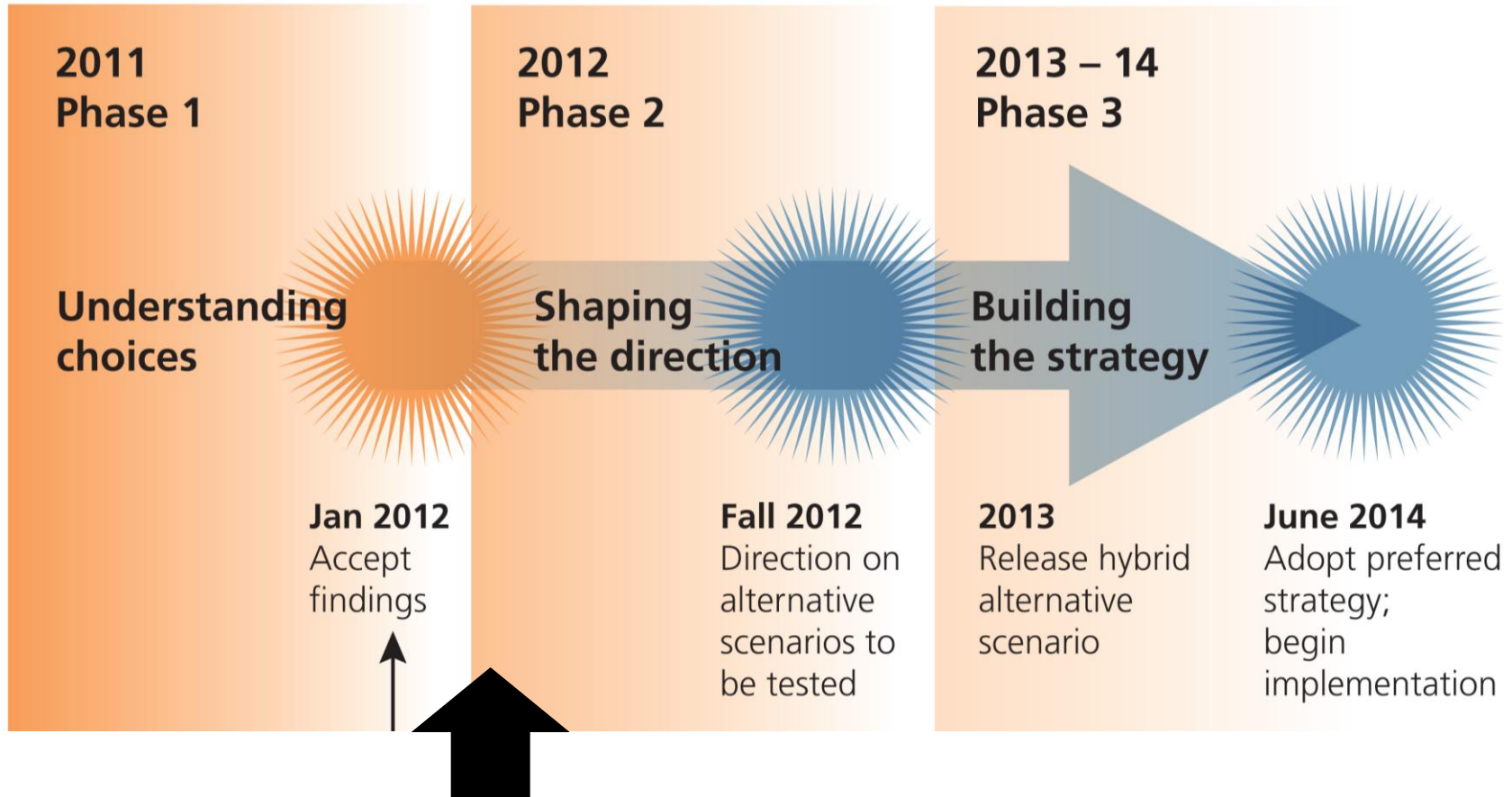
# Metro's Climate Smart Scenarios:



## *Responding to Legislative Scenario Planning Requirements*



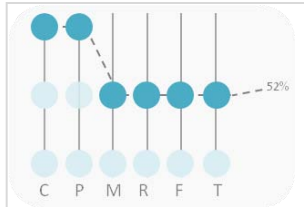
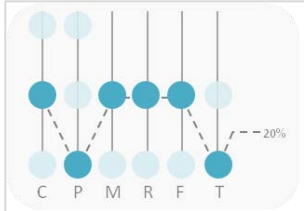
# Scenarios Project timeline



**We are here.**



# | Scenario Planning:



## ***State MPO Targets for Greenhouse Gas Emission Reductions (lt. duty vehicles)***

# 2035 GHG Targets for Oregon MPOs

*per capita light vehicle GHG emissions reduction below 2005 levels*



## 2035 GHG targets for Oregon metropolitan areas per capita light vehicle GHG emissions reduction

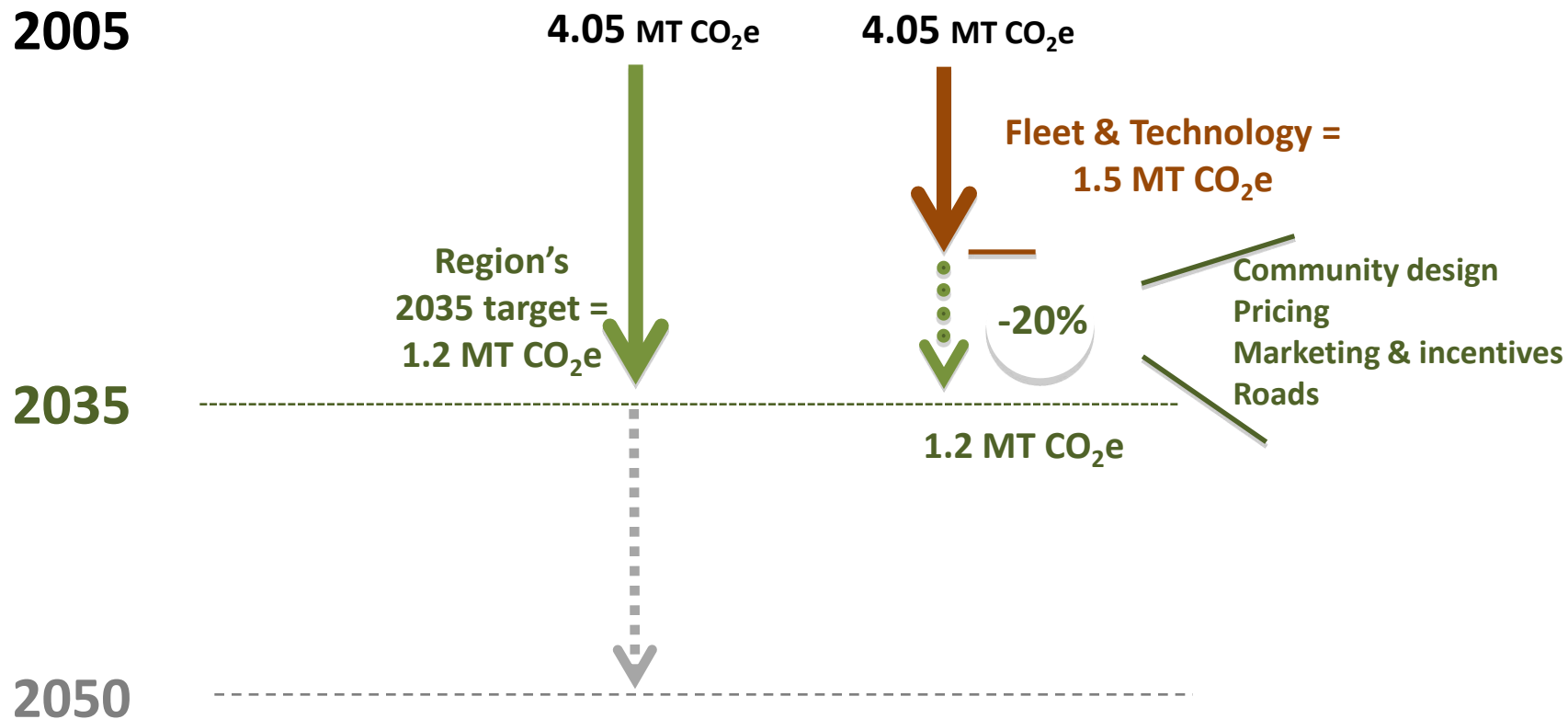
| Metropolitan area               | Adopted target <sup>1</sup> |
|---------------------------------|-----------------------------|
| Portland Metro <sup>2</sup>     | 20%                         |
| Salem-Keizer                    | 17%                         |
| Corvallis                       | 21%                         |
| Eugene-Springfield <sup>3</sup> | 20%                         |
| Bend                            | 18%                         |
| Rogue Valley                    | 19%                         |

<sup>1</sup> Adopted by the Land Conservation and Development Commission in May 2011

<sup>2</sup> Required scenario planning and adoption

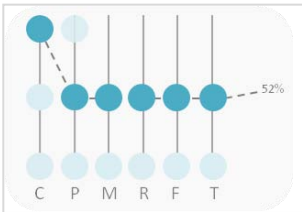
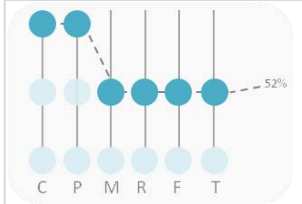
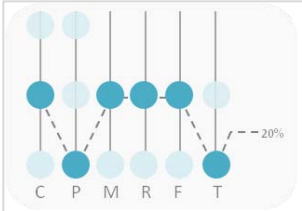
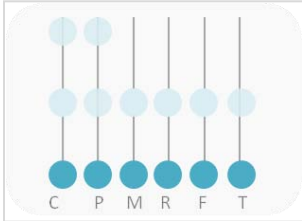
<sup>3</sup> Required scenario planning

# Region's 2035 GHG emissions reduction target (in per capita terms)



# | Scenario Planning:

## *Meeting the Targets: Work to date*





# 2040 Growth Concept

# Regional growth strategy

The Metro 2040 Growth Concept defines the form of regional growth and development for the Portland metropolitan region. The Growth Concept was adopted in December 1995 through the Region 2040 planning and public involvement process. This concept is intended to provide long-term growth management of the region.

The map highlights elements of parallel planning efforts including: the 2035 Regional Transportation Plan that outlines investments in multiple modes of transportation, and a commitment to local policies and investments that will help the region better accommodate growth within its centers, corridors and employment areas.

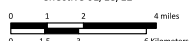
For more information on these initiatives, visit <http://www.oregonmetro.gov/2040>



## 2040 Growth Concept Map

December 2011

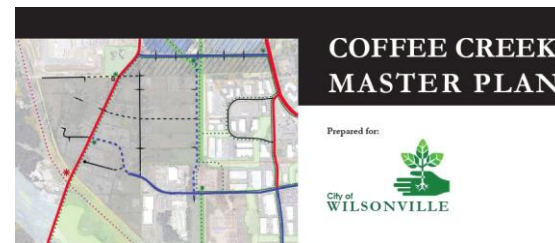
- Central city
- Regional center
- Town center
- Employment land
- Parks and natural areas
- Neighborhood
- Rural reserve
- Urban reserve
- Urban growth boundaries
- Neighbor cities
- Areas added to the UGB, effective 01/18/12
- Existing high capacity transit
- Planned high capacity transit
- Proposed high capacity transit tier 1
- Mainline freight
- High speed rail
- County boundaries
- Airports
- Intercity rail terminal
- Station communities
- Main streets
- Corridors



The information on this map was derived from digital databases on Metro's GIS. Care was taken in the creation of this map. Metro cannot accept any responsibility for errors, omissions, or partial coverage. There are no warranties, expressed or implied, including the accuracy of measurements or fitness for a particular purpose, accompanying this product. Measure, replication of any errors are experienced.

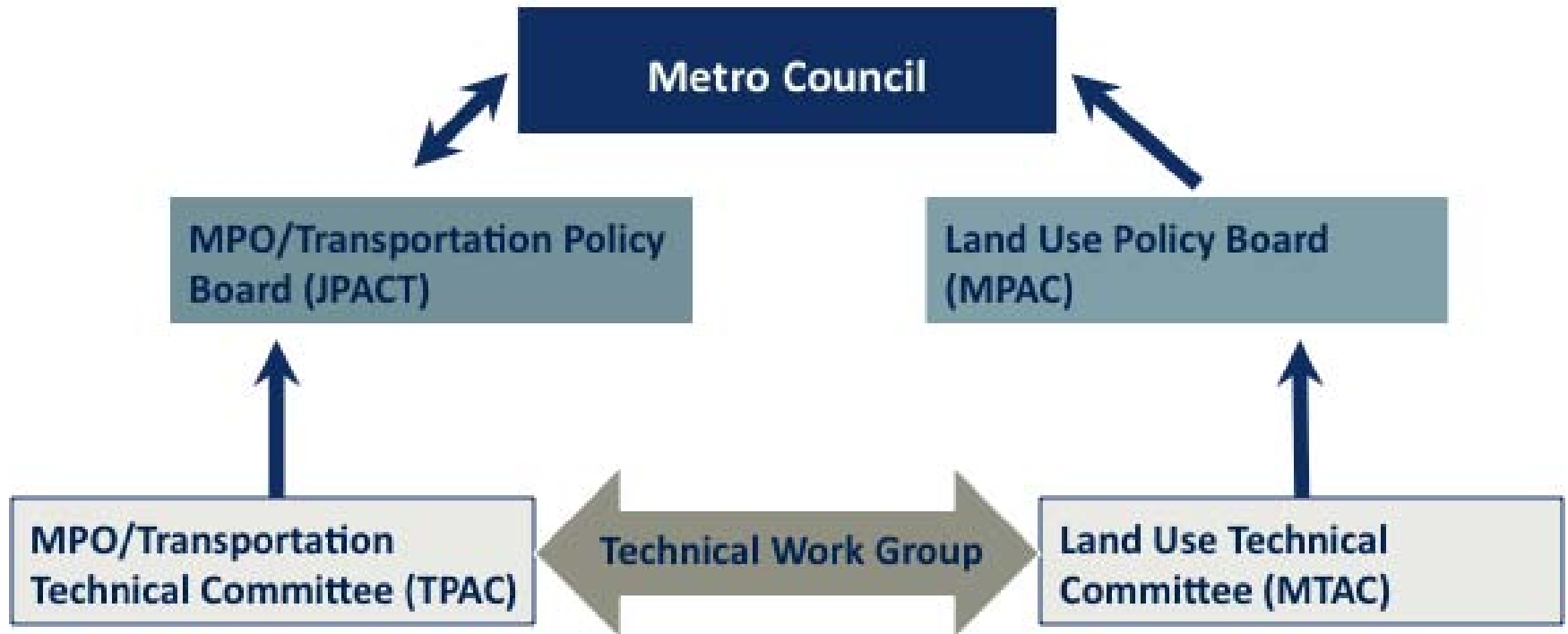


# Building on community aspirations



# Regional decision-making framework

Collaborative and consensus-based



# Phase 1 purpose

- How far do current plans and policies get us?
- What is the relative GHG emissions reduction potential of different policies?



Policy areas tested in Phase 1

*Understand choices, not to choose a preferred alternative*

# Building blocks for regional scenarios

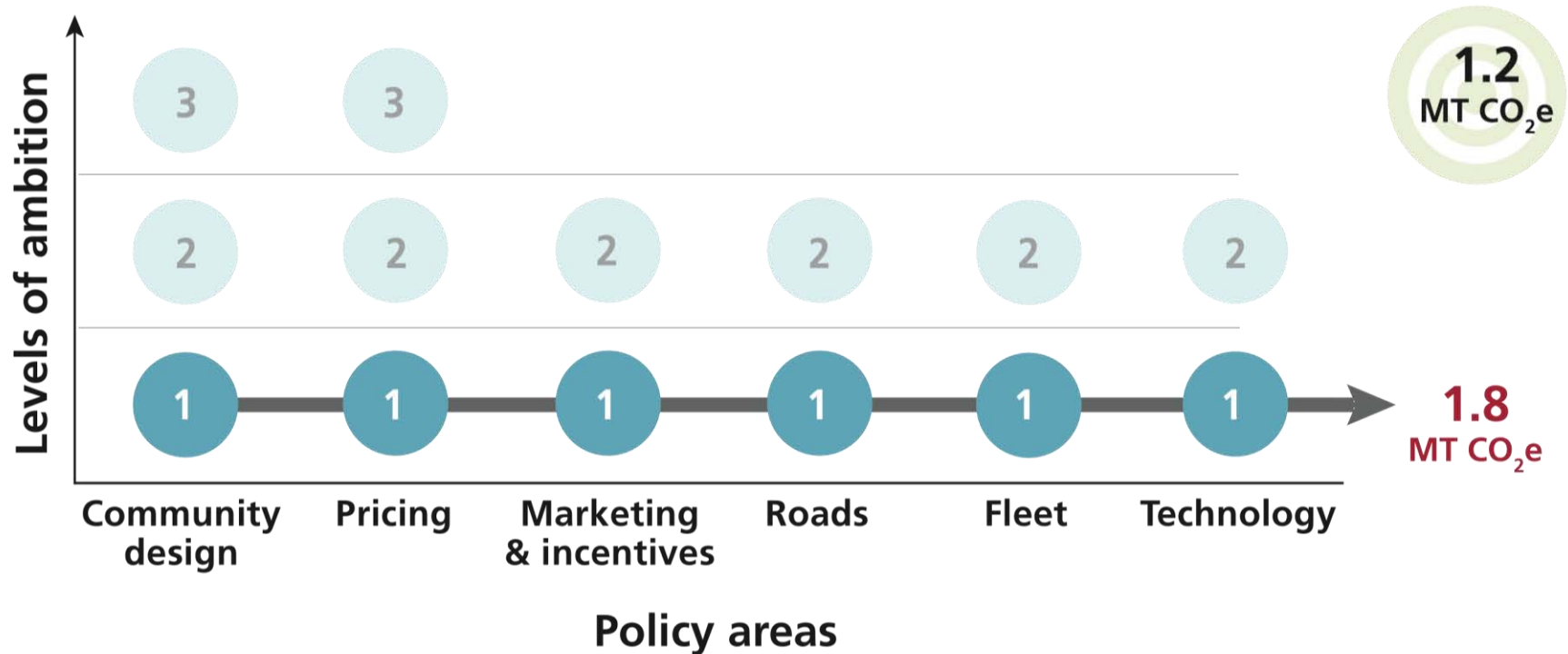
## Testing combinations of plausible strategies



### Strategies tested

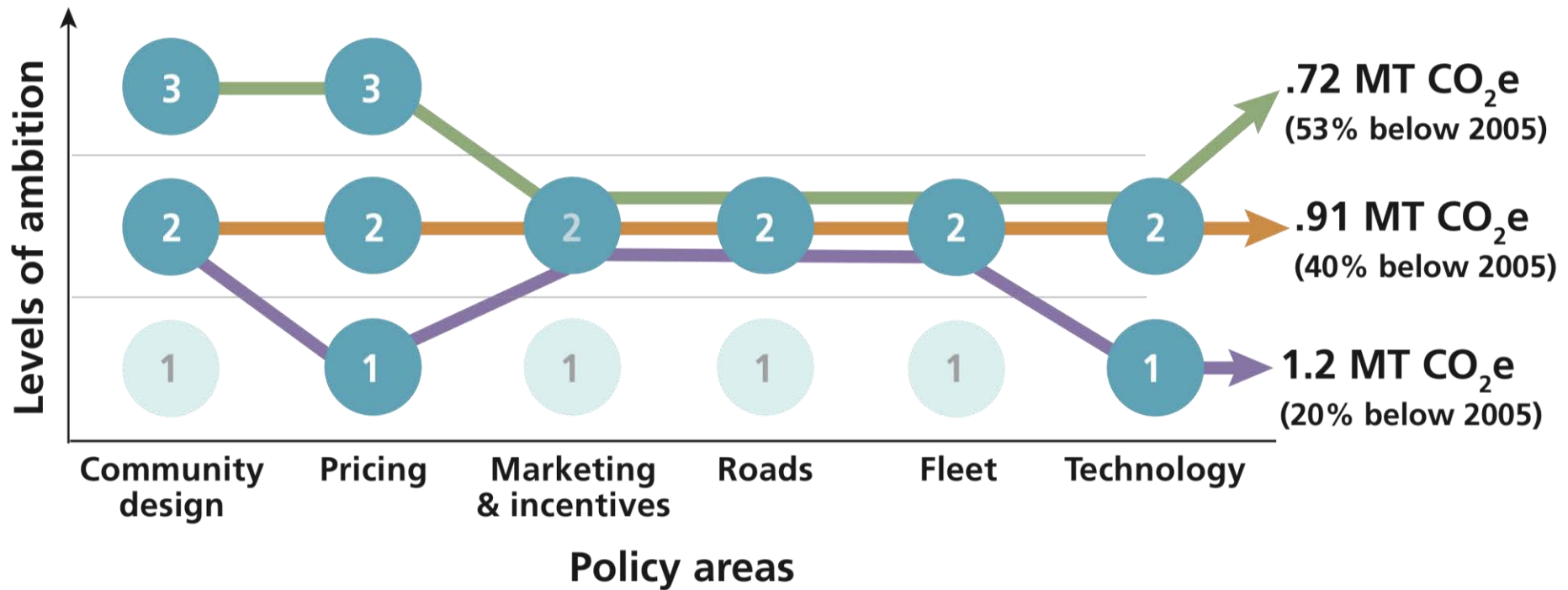
- **Community design:** Complete neighborhoods and mixed-use areas, urban growth boundary, transit service, bike travel, parking
- **Pricing:** Pay-as-you-drive insurance, gas tax, road use fee, carbon fee
- **Marketing and incentives:** Eco-driving, individualized marketing programs, employer commute programs, car-sharing
- **Roads:** Freeway and arterial capacity, traffic management
- **Fleet:** Fleet mix and age
- **Technology:** Fuel economy, carbon intensity of fuels, electric and plug-in hybrid electric vehicle market share

# Current plans provide a strong foundation but are not enough





# Targets are achievable but will take more effort and new actions

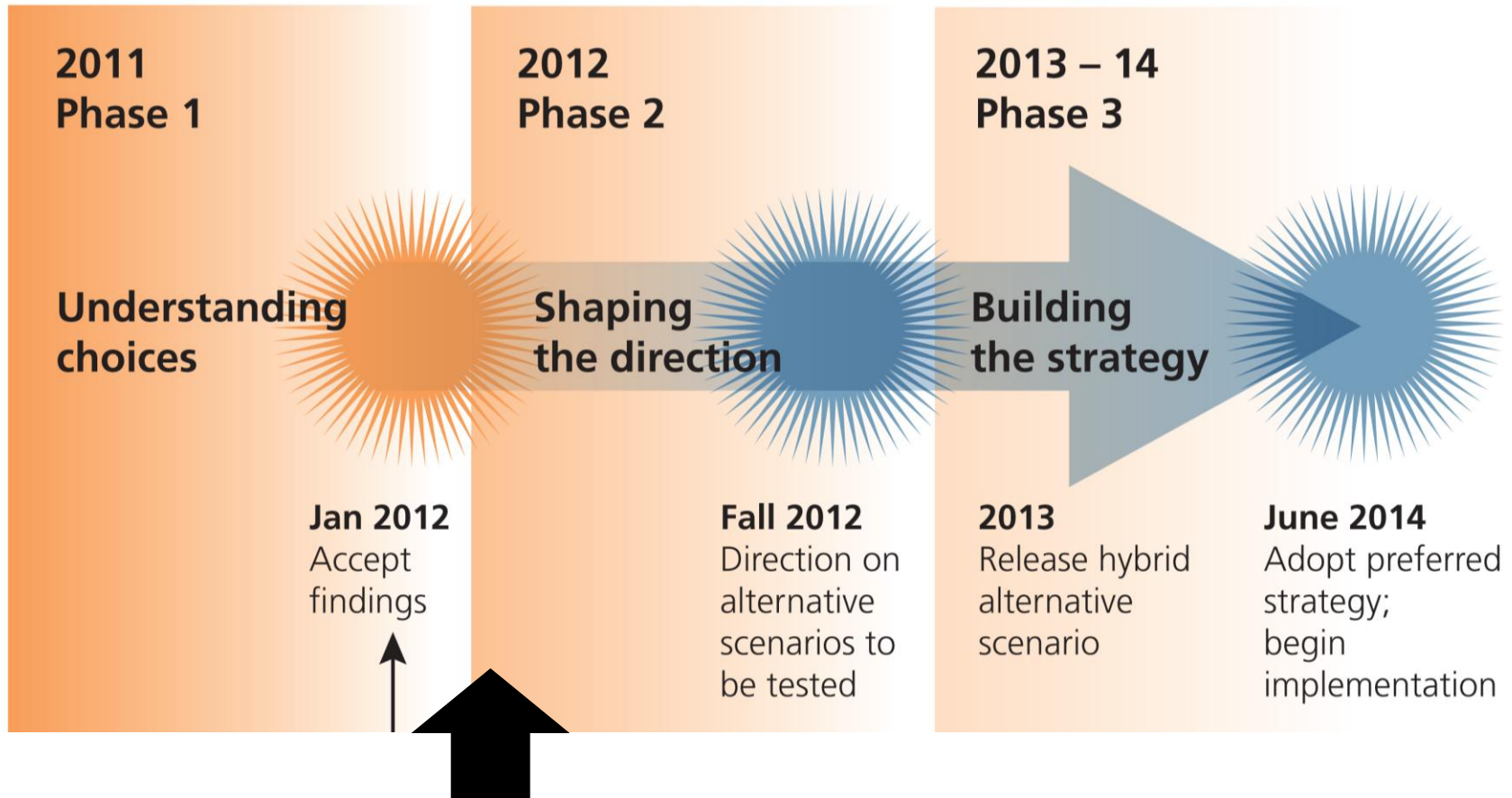


# Key findings



- Current plans and policies are ambitious and provide a strong foundation
- Targets are achievable but will require targeted ***additional*** effort and ***new*** actions
- Most strategies are already being implemented in the region
- The best approach is a mix of policies and strategies (no “silver bullet”)

# Scenarios Project timeline



**We are here.**

# Implications/Caveats for Phase 2



- The results reflect the research/assumptions and provide a starting point for our region
- Each strategy presents its own opportunities and challenges
- Flexibility, testing, and innovation are needed
- Leadership, partnerships and collaboration are keys to success



# Moving forward to Phase 2

- Apply Phase 1 findings to identify combinations
- Conduct additional strategy analysis & evaluation
- Bring in advanced local aspirations and plans
- Bring in statewide transportation strategy



# Building toward six desired outcomes



**Vibrant communities**



**Equity**



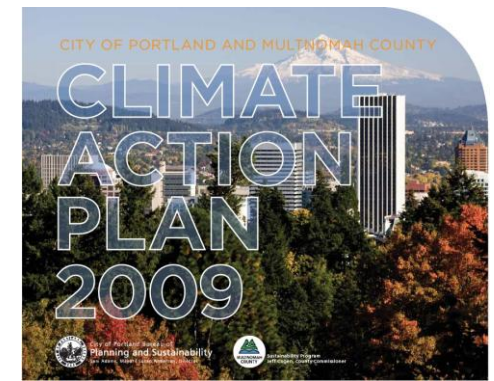
**Economic prosperity**



**Transportation choices**



**Clean air & water**



**Climate leadership**

# Evaluation framework



## Equity

- Access to affordable housing and travel options
- Access to opportunity
- Public health



## Economy

- Access to industry and jobs
- Freight travel time costs
- Economic development opportunities

## Environment

- Greenhouse gas
- Air quality
- Access to parks and natural areas



## Costs and savings

- Implementation
- Household and business



# Recent/Next steps

**January**

Metro Council action on Phase 1 findings

ODOT and DLCD submit progress report to Legislature

**Jan. - March**

Begin Phase 2 and share findings with stakeholders and local officials

**Spring**

Request Metro Council, JPACT and MPAC direction on Phase 2 work plan



# Discussion



For more information:

[www.oregonmetro.gov/climatescenarios](http://www.oregonmetro.gov/climatescenarios)

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