



Regional efforts to address climate challenge

*Charting a path to livable,
prosperous, equitable and climate
smart communities*

Mike Hogle, Metro Research Center Director

Portland Planning and Sustainability Commission briefing
May 24, 2011

Presentation overview

- Metro's Mission and Role
- State Goals
- Metro's Climate Smart Communities Initiative
 - Regional collaboration and partnerships
 - Regional data, methods and tools development
 - Regional Scenario planning
- Q&A/Discussion

Metro mission

In 1992, the region's voters approved the Metro Charter to establish Metro as a regional government that

“ ...undertakes, as its most important service, planning and policy making to preserve and enhance the quality of life and the environment for themselves and for future generations...”

– Metro Charter, 1992

Metro's role



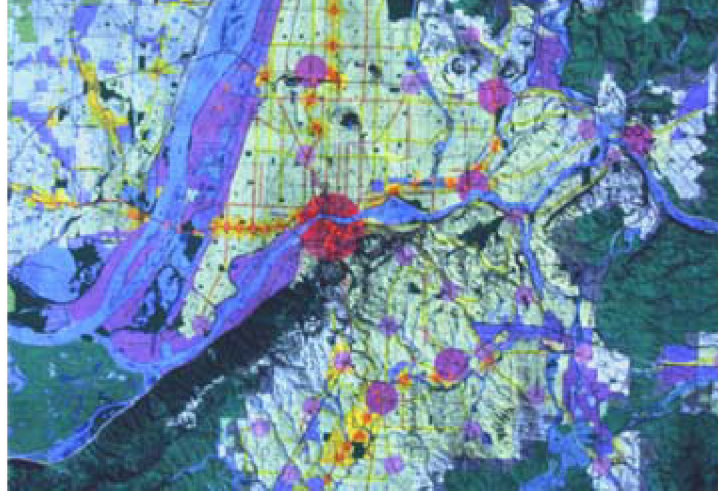
Metro Council climate direction



Resolution No. 08-3931 approved sustainability definition and development of climate action plan

Resolution No. 08-3971 launched Climate Smart Communities Initiative

Building on past innovation and successes



- **1995: Region 2040**
- **1996-2009: 2040 Implementation**
- **2010: Community Investment Strategy**
 - Six Desired Outcomes
 - Regional Transportation Plan
 - Urban and Rural Reserves
 - The Intertwine
- **2011 & beyond: CIS Implementation**

2040: Six desired outcomes



**Vibrant
communities**



Equity



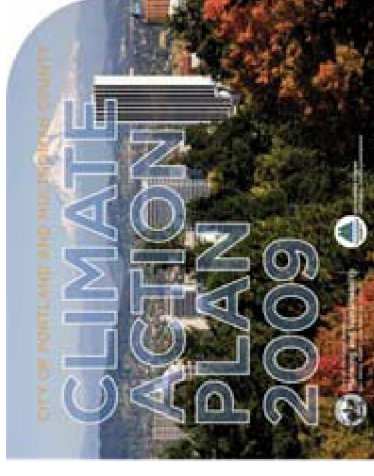
**Economic
prosperity**



**Transportation
choices**



Clean air & water



**Climate
leadership**

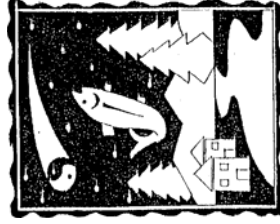
2040: Local aspirations and actions



Beaverton
Civic Plan
growing together



Tualatin Tomorrow



IMAGINE
WEST LINN



THE PORTLAND PLAN



COFFEE CREEK
MASTER PLAN



Planning for People, Places and Prosperity

2040: Public-Private partnerships



2040: Linking local and regional



2040: Preserving natural areas

To date:

- nearly 11,000 acres preserved
- more than 90 miles of rivers and streams protected
- more than one million trees planted





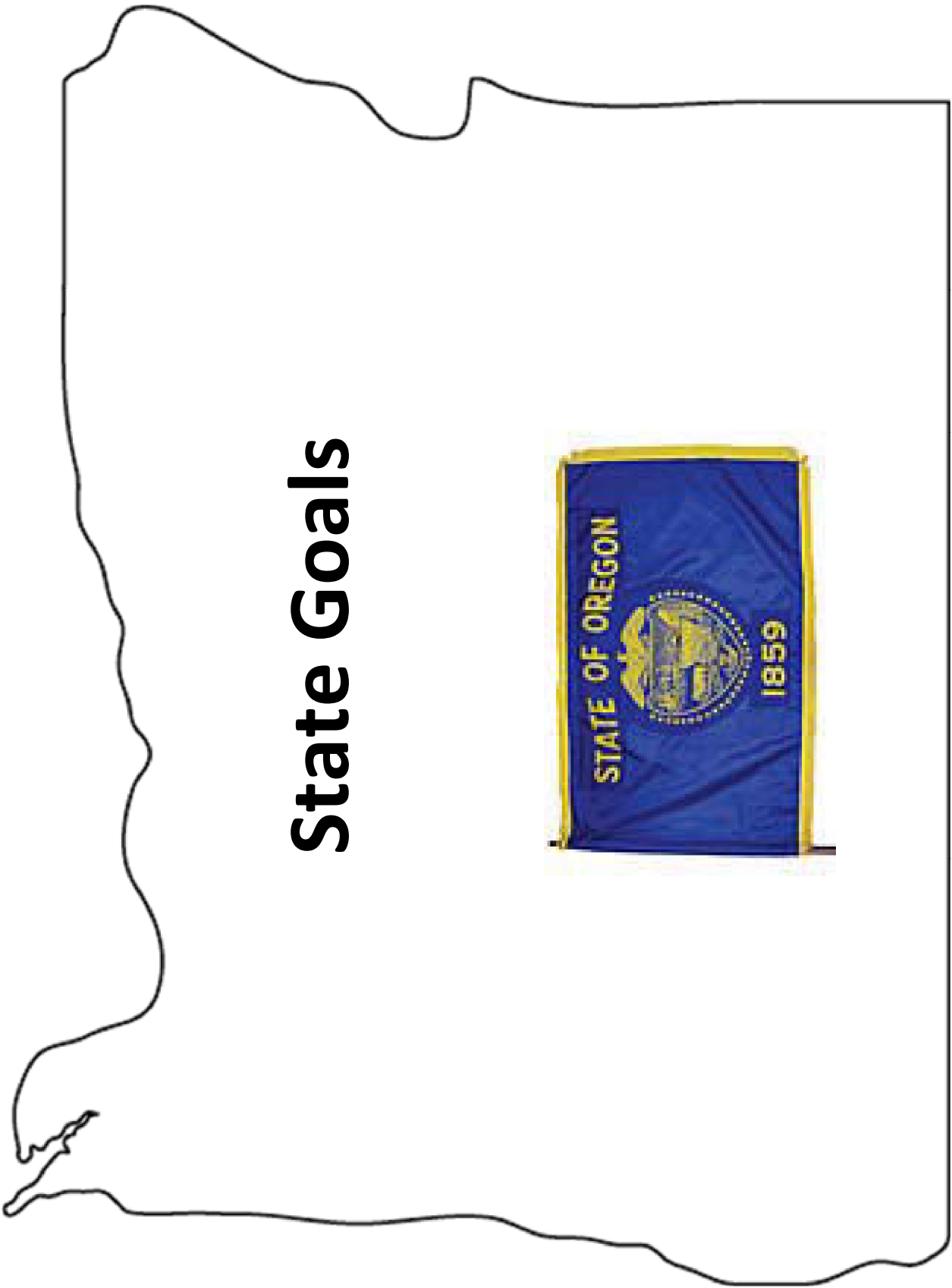
The Intertwine

- Conservation
- Active transportation
- Acquisition
- Regional system
- Conservation education



2040: Nature in Neighborhoods





State Goals



Oregon Greenhouse Gas Goals

- Stop emissions increases by 2010
- 10% reduction below 1990 levels by 2020
- 75% reduction below 1990 levels by 2050

Adopted by the 2007 Legislature, the goals are for all greenhouse gas emissions sources.



An aerial satellite photograph of a city, likely Portland, Oregon, showing a river (the Willamette River) winding through the urban area. The city is outlined with a yellow dashed line, and the surrounding green landscape is also visible. The text is overlaid on the image.

Metro's Climate Smart Communities Initiative Progress to Date and Work Ahead



Climate Smart Communities Collaboration and partnerships





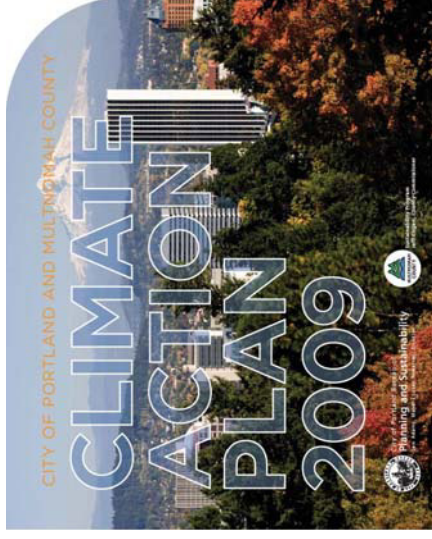
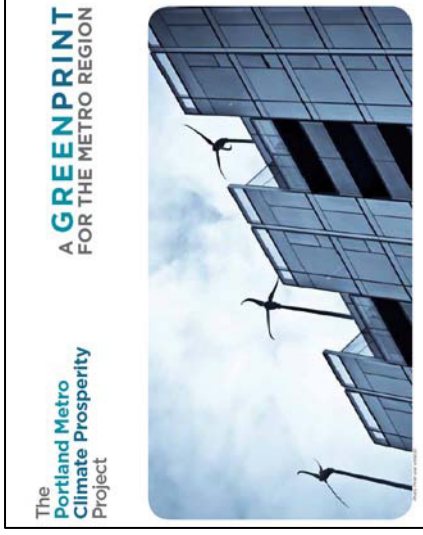
The **Resource**
Innovation
 Group



UNIVERSITY OF OREGON



Greenlight Greater Portland



**Oregon
Global
Warming
Commission**

**Report to the
Legislature**

2011



February 2011

*Including Key Actions
and Results from the
Commission's Interim
Roadmap to 2020*



Institute for a
Sustainable Environment



Climate Smart Communities Regional Data, Methods and Tools Development

Region's emissions sources (2006)

Metro Area Greenhouse Gas Emissions

31 Million Metric Tons Carbon Dioxide Equivalent (MMT CO₂e)

Transportation

Estimated emissions: 7.8 MMT CO₂e

- Vehicle miles traveled by passenger vehicles and light trucks
- Operation of public transportation system (TriMet)

25%
Transportation

Energy

Estimated emissions: 8.2 MMT CO₂e

- Natural gas consumption from residents and businesses
- Fossil fuel consumption from utilities' imported electricity

27%
Energy

48%
Materials
(goods and food)

Materials (goods and food)

Emissions related to the production, manufacture and disposal of materials, goods and food
Estimated emissions 14.9 MMT CO₂e

- Manufacture of products and food (from inside and outside the region) consumed by metro residents and businesses
- Freight movement of materials, goods and food (heavy truck, rail, air)
- Waste management and recycling system (collection, landfills)

Regional greenhouse gas inventory

- Identify and manage risks and opportunities with regional systems
- Baseline for regulatory and legislative developments
- Provide foundation to collaborate with local governments, ODOT, TriMet and others
- Set stage for integrated suite of tools for Metro program analysis and monitoring

Regional greenhouse gas emissions toolkit

- Establishes a framework to guide climate impact assessments
- Provides consistent guidance on analysis methods, reporting and evaluation of Metro projects, programs and policies
- Mechanism to engage policymakers in clear and consistent discussions around regional priorities and processes to address climate change



Selecting a tool

1

Step 1: Scale definition

2

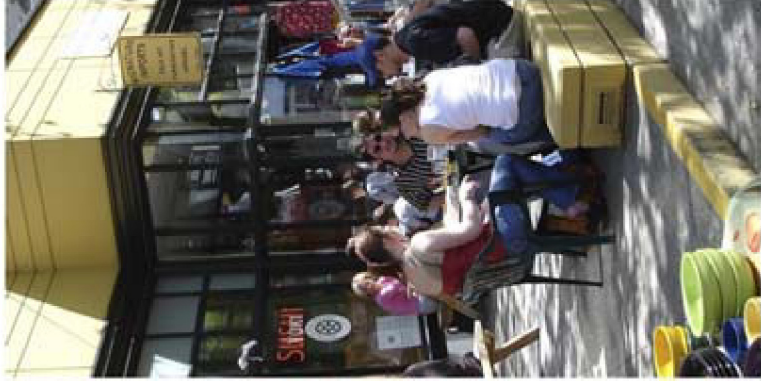
Step 2: Boundary definition

3

Step 3: Emission type

4

Step 4: Tool selection



Climate Smart Communities Scenario Planning

Oregon Sustainable Transportation Initiative

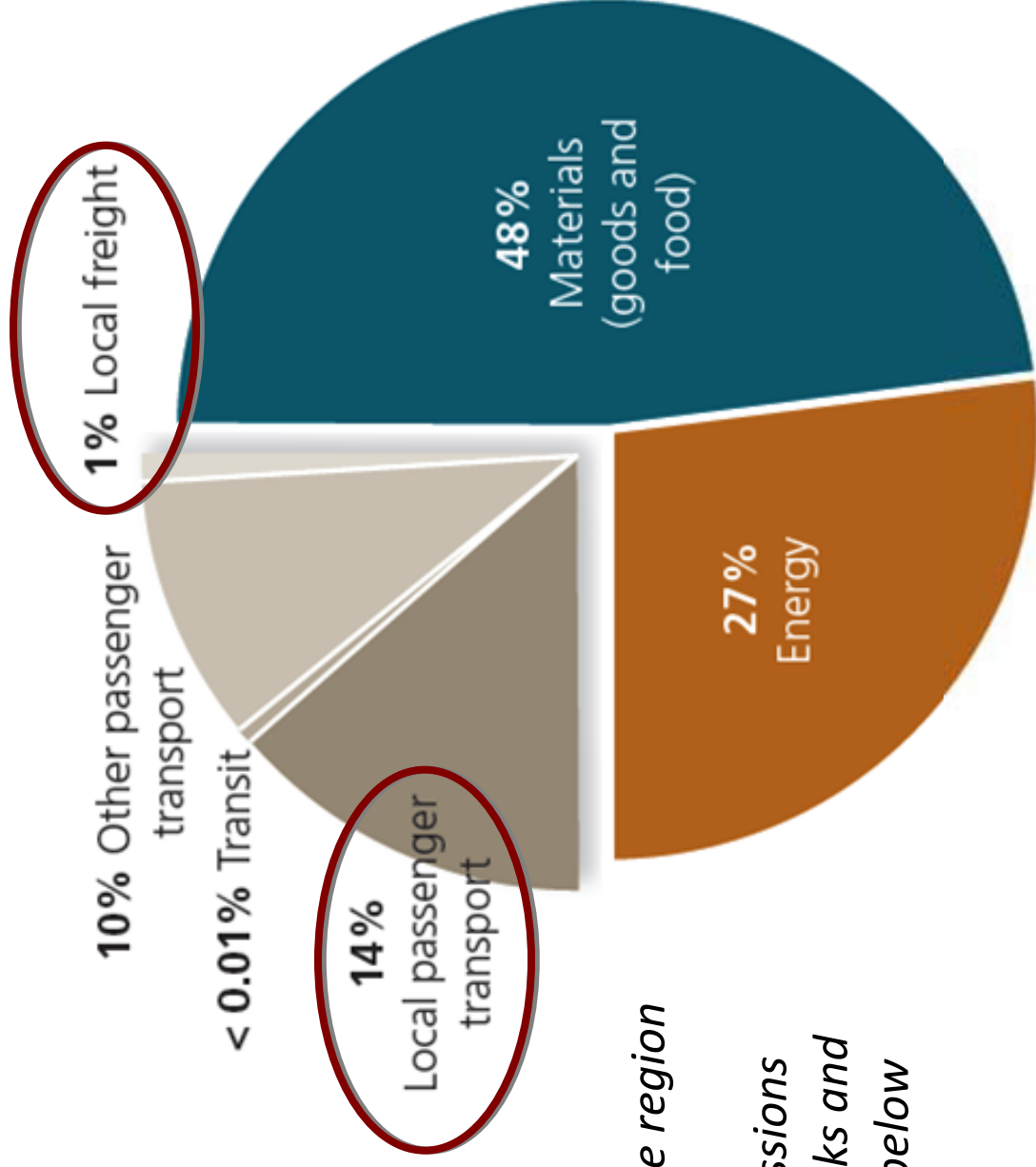
(HB 2001 & SB 1059)

State and Metropolitan Area Partnership

- Statewide Transportation Strategy
- Target Rulemaking Advisory Committee
- Metropolitan Scenario Planning

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

Light vehicles: region's mandated focus

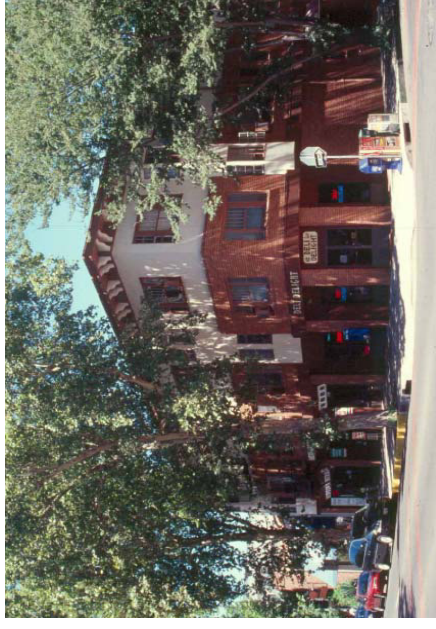


The State calls for the region to reduce per capita greenhouse gas emissions from cars, small trucks and SUVs by 20 percent below 2005 levels.

Land use strategies

Emphasize low carbon development patterns

- More infill and redevelopment in centers and corridors
- More mixed use and transit oriented development
- Higher densities for new development
- Tight urban growth boundary



Transportation strategies

Expand low carbon travel options

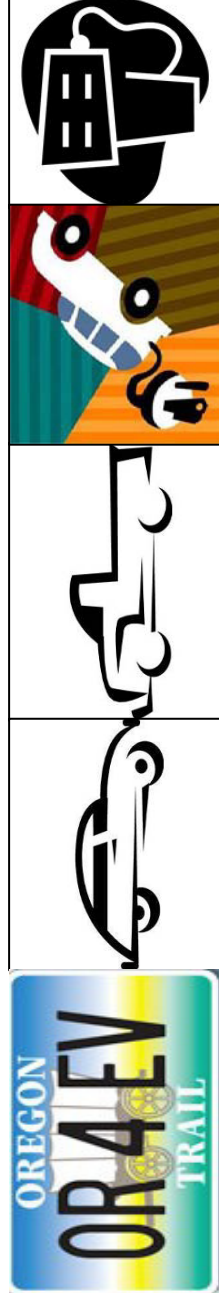
- Incentives for walking, biking, transit and low carbon vehicles
- Complete pedestrian and bike networks
- Transit service
- Parking management



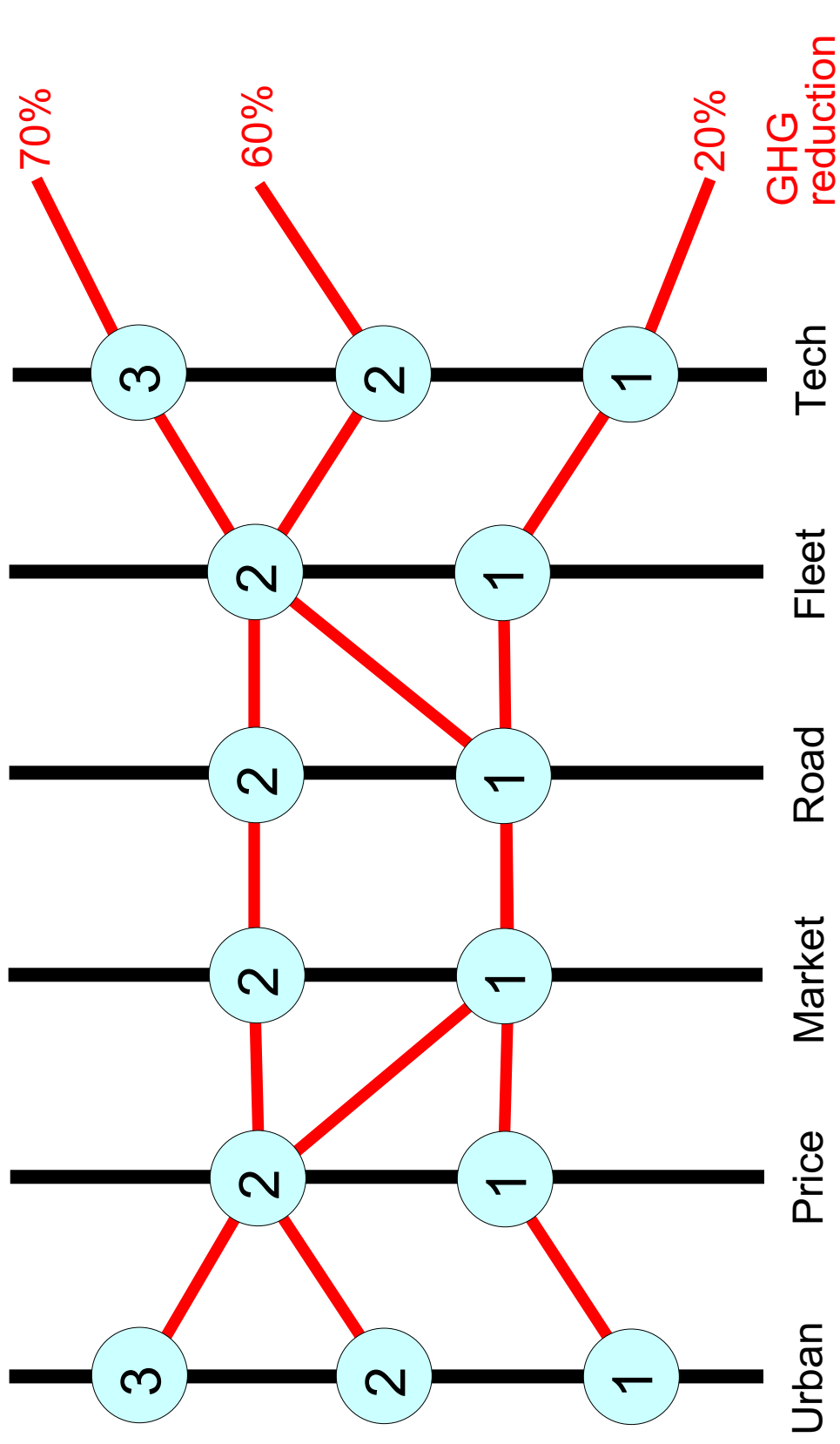
Technology & fleet estimates for the Portland region

| | Fuel Economy mpg cars & trucks | Fleet Mix percentage cars & trucks | Hybrids percentage cars & trucks | Fuel Carbon Content percentage improvement |
|-------------|---|---|---|--|
| 2005 | 29 & 21 | 57 & 43 | 0 | 0 |
| 2035 | 68 & 48 | 71 & 29 | 8 & 2 | 20 |

Source: State Agency Technical Report (March 1, 2011) and assumed in the Metropolitan GHG Reduction Targets Rule



Statewide scenarios show a range of potential reductions (2050)



Most effective strategies

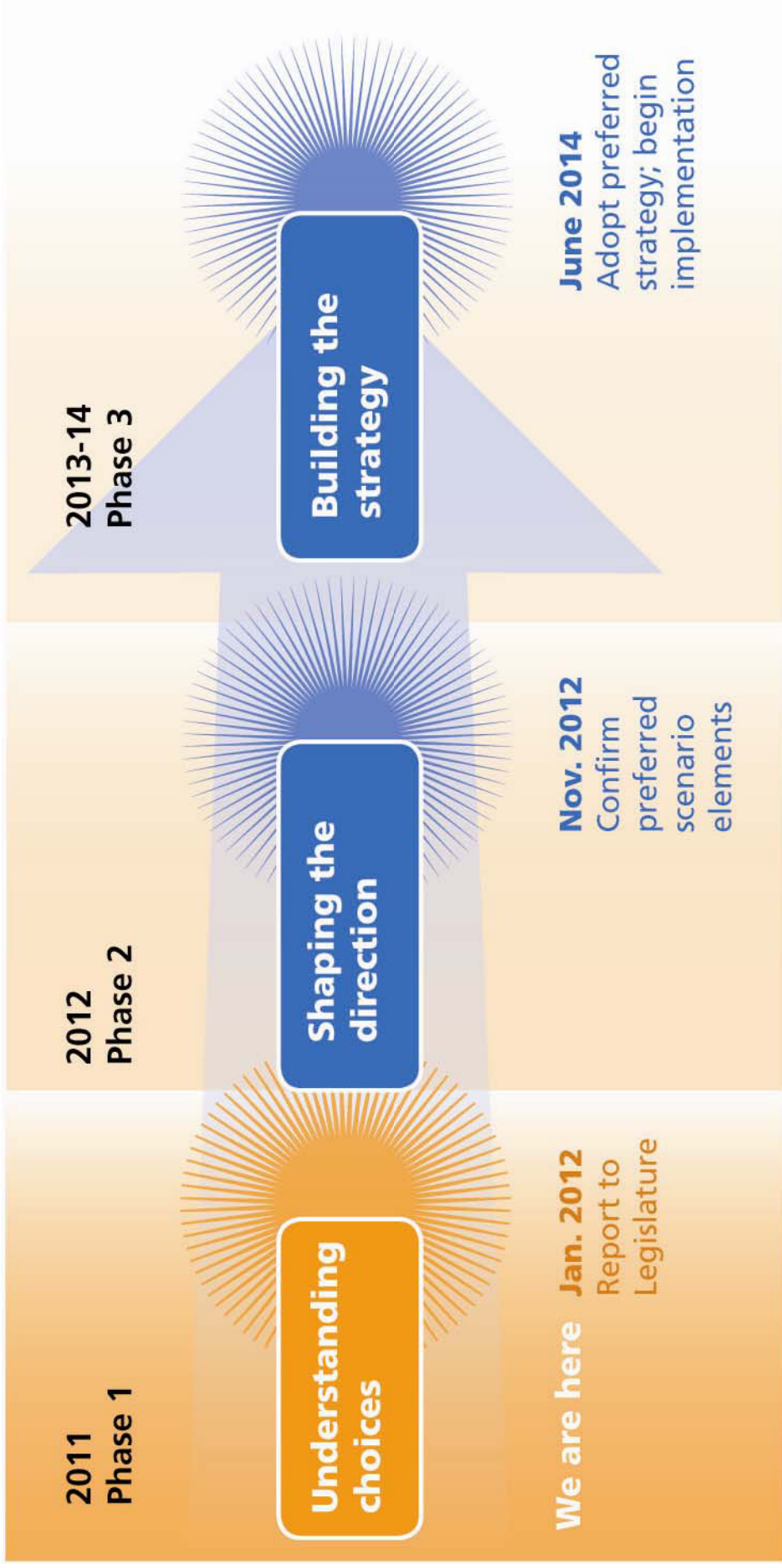
- Technology and fuels
- Built environment and community design
 - Infill, mixed-use, transit supportive development in centers
 - Expanded transit and active transportation networks
 - More jobs and services near where people live
- Pricing
 - Parking management
 - Fees that increase the cost to drive
- Marketing and other trip reduction programs

Assessing the benefits and impacts

- Greenhouse gas emissions
- Travel behavior
 - Walking, biking and transit
 - Vehicle miles traveled
 - Freight reliability
- Jobs and households
- Economy
- Public health and equity
- Household cost and affordability



Scenarios timeline



We are here.

Local implementation



Comprehensive
plans and
zoning



Transportation
system plans



Development
codes



Community
investments





For more information, www.oregonmetro.gov/climatechange

Discussion

- Do you have questions about Metro's Climate Smart Communities efforts?
- How can Metro's efforts support your work?
- What similarities/differences do you see between the Portland Plan and Metro's efforts?
- Do you have concerns that you would like us to be aware of as we move forward?