Multimodal System Inventory for Metropolitan Areas

Multimodal Inventory Virtual Briefing #1

July 23, 2024

10:00 am – 11:00 am

Oregon Department of Transportation

ODOT Multimodal Inventory Project

AGENDA

Time	Topic
10 mins	Project Overview
10 mins	Technical Process
5 mins	Partner Engagement
25 mins	Q&A
5 mins	Next Steps

Project Overview

Team Introductions

ODOT Project Management Team

PROJECT MANAGER

Theresa Conley, Principal Planner

STATEWIDE PLANNING SECTION

DEPUTY PROJECT MANAGER

Sarah Peters, Senior Planner

STATEWIDE PLANNING SECTION

Erik Havig, Manager

PLANNING SECTION

Chris Wright, GISP, Manager

TRANSPORTATION DATA SECTION

Peter Schuytema, TPAU Team

TRANSPORTATION PLANNING AND ANALYSIS UNIT

Brian Hurley, Mitigation Program Manager

ODOT CLIMATE OFFICE

Ian Clancy / Sara Pimental, Multimodal Program Analyst

PUBLIC TRANSPORTATION DIVISION

Consultant Team

PROJECT MANAGER

Carl Springer, DKS

DEPUTY PROJECT MANAGER

Eddie Montejo, Parametrix

Team comprised of staff from DKS, Parametrix, Kittelson, JLA, Toole Design and i-Ten

Project Purpose

Assist local jurisdictions in defining and collecting data needed to comply with the new Transportation Planning Rule (TPR) adopted through the 2022 *Climate Friendly and Equitable Communities rulemaking*

Key Changes in the TPR

- Increased emphasis on **Community Engagement**
- Regional GHG Targets are foundational for planning
- Performance **standards** must go beyond auto mobility
- Zoning & planning for walkable mixed-use areas
- Parking Reform
- Prioritze projects meeting climate & equity goals

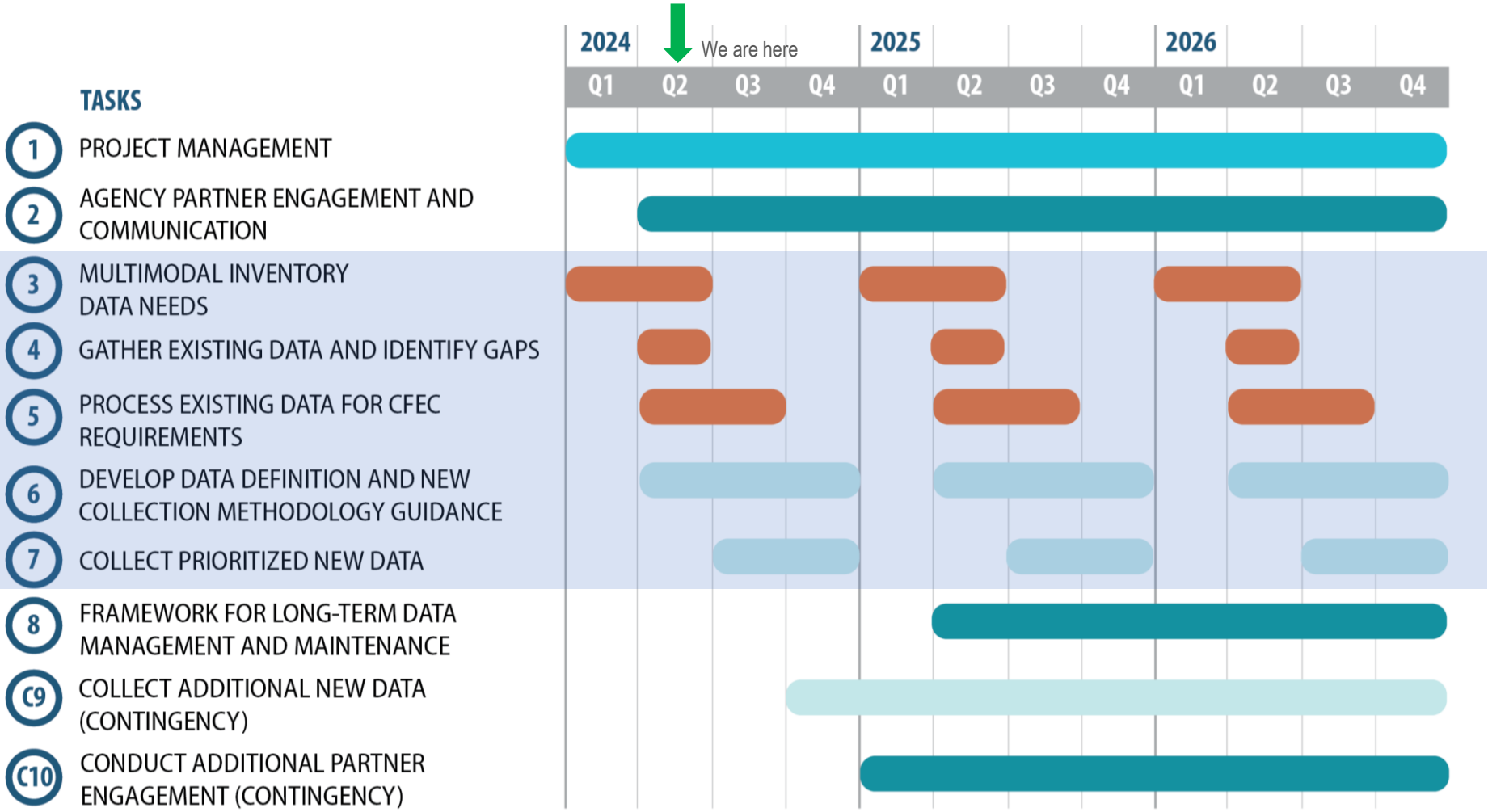
The TPR requires cities and counties in metropolitan areas to prepare a robust transportation system inventory that can be used to analyze system gaps, inform project prioritization and measure system performance

Project Objectives

- Do expensive work efficiently and support cities & counties
- Establish datasets for CFEC-compliant Transportation System Plans
- Establish long-term data management and maintenance protocols
- Ensure ongoing access to the data for planning, analysis, and performance monitoring purposes

Task Sequence and Timeline

See Slide 18
Recurring based on jurisdictions and TSP schedules*



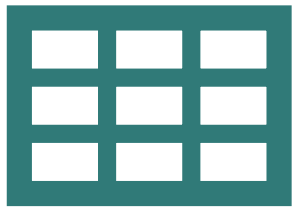
Technical Processes

Data Inventory Needs

A set of infrastructure layers and attributes necessary to meet the requirements of Oregon Administrative Rule (OAR) 660-012.

Map Layers

Attributes



- Ownership
- Maintenance Responsibility
- Classificaton
- Primary Uses
- Primary Users
- Land Use Context
- Functional Class
- Federal Functional Class
- Condition
- Number of Travel Lanes

Data Inventory Needs: GIS Data Sets

VEHICULAR + FREIGHT FACILITIES

- **Roadways**
- **Freight Routes**
- **Freight Terminals**

BICYCLE + PEDESTRIAN FACILITIES

- *Bicycle Routes*
- *Pedestrian Routes*
- *Pedestrian and Bicycle Crossings*

TRANSIT FACILITIES

- **Transit Lines**
- **Transit Supportive Facilities**
- **Transit Priority Infrastructure**

OTHER RELEVANT DATA

- **Key Destination***
- **Crashes***
- *Intersection Points*

NON-MODAL

(used for context and gap analysis)

- Urban Growth Boundaries
- MPO Boundaries
- City Limits
- Climate Friendly Areas
- Metro 2040 Regional Growth Centers
- Primary and Secondary Schools
- Primary and Secondary Schools ¼-mile Buffer
- US Census (Blockgroups)
- Underserved Populations

Bold = Existing Data
Italic = New Data
* = Updated during TSP

Data Inventory Needs: Sample Attributes

BICYCLE + PEDESTRIAN FACILITIES

- *Bicycle Routes*
- *Pedestrian Routes*
- *Pedestrian and Bicycle Crossings*

REQUIRED TPR ATTRIBUTES

- Location
- Type
- Width
- Condition
- Classification/Designation

SECONDARY ATTRIBUTES

- Level of Traffic Stress Inputs *
- Crash Risk Inputs *

* *Data inputs only; no analysis outcomes*

CROSSING ATTRIBUTES

- Location
- Type
- Crossing distance
- Closed crossing
- Curb Ramp Present

SECONDARY ATTRIBUTES

- Distance between Crossings
- Crossing Treatment

Data Inventory Needs: Data Uses

Transportation System Inventories

- Detailed inventories are required for the pedestrian, bicycle, public transportation, and street and highway systems
- Inventories provide the basis for identifying gaps, deficiencies, and needs, as well as developing solutions and numerous required elements of TSPs

Prioritization Framework

- Used to develop and evaluate alternative solutions and prioritize solutions in TSPs
- Relies on transportation system inventory and other data as input to prioritization

Land Use and Transportation Performance Meaures

- Indicators used to assess the performance of the transportation system
- Relies on transportation system inventory and other data for reporting on progress

Other Agency Goals

- Active transportation performance measures
- Oregon Bicycle and Pedestrian Safety Implementation Plan
- Active Transportation Needs Inventory (ATNI)

Data Inventory Needs: Data Sources

JURISDICTIONS / AGENCIES

- Use existing GIS datasets and attributes provided by jurisdictions or agencies.
- Jurisdictions / Agencies will be required to populate some attributes during the TSP processs.

ARTIFICIAL INTELLIGENCE (AI)

- Pedestrian Routes, Bicycle Routes, and Intersection Points will be developed using machine learning and 2024 high-resolution aerial photos (7.5 cm)
- AI will populate attributes for widths and several BLTS / PLTS attribute inputs.

PROJECT TEAM

- Builds missing datasets from available Jurisdication / Agency sources.
- Populate attributes using exsiting Jurisdiction / Agency sources and GIS analysis.

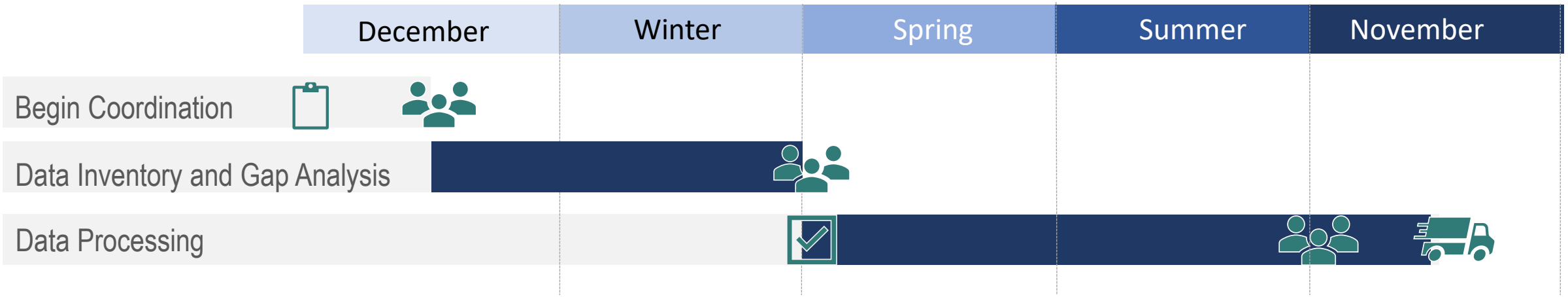
Process

Process Step	Technical Coordination	Data Check Out*	TPR Updates	Data Check In*
Process Description	Technical staff will coordinate on the method and schedule for data updates. This will include the process for checking data in and out.	Data will be “checked-out” from the agency. During the check-out period, agencies will be asked to not make updates to subject datasets.	The project team will add and populate TPR compliant attributes. This process will include QA/QC. Additional technical coordination with agency staff may be necessary.	Final datasets will be “checked-in” to agencies following the processes developed under the Technical Coordination step.

Final datasets will reside with the Jurisdiction / Agency

**Data check-in and check-out refers to the technical process whereby the project team will receive data from an agency (check-out) for making TPR compliant updates, and then return the data (check-in) once the process is complete. The processes for checking data in and out will depend on the location of each agency's data and their preferences on where and how data updates are completed.*

Data Collection and Processing Schedule



Coordination

Survey

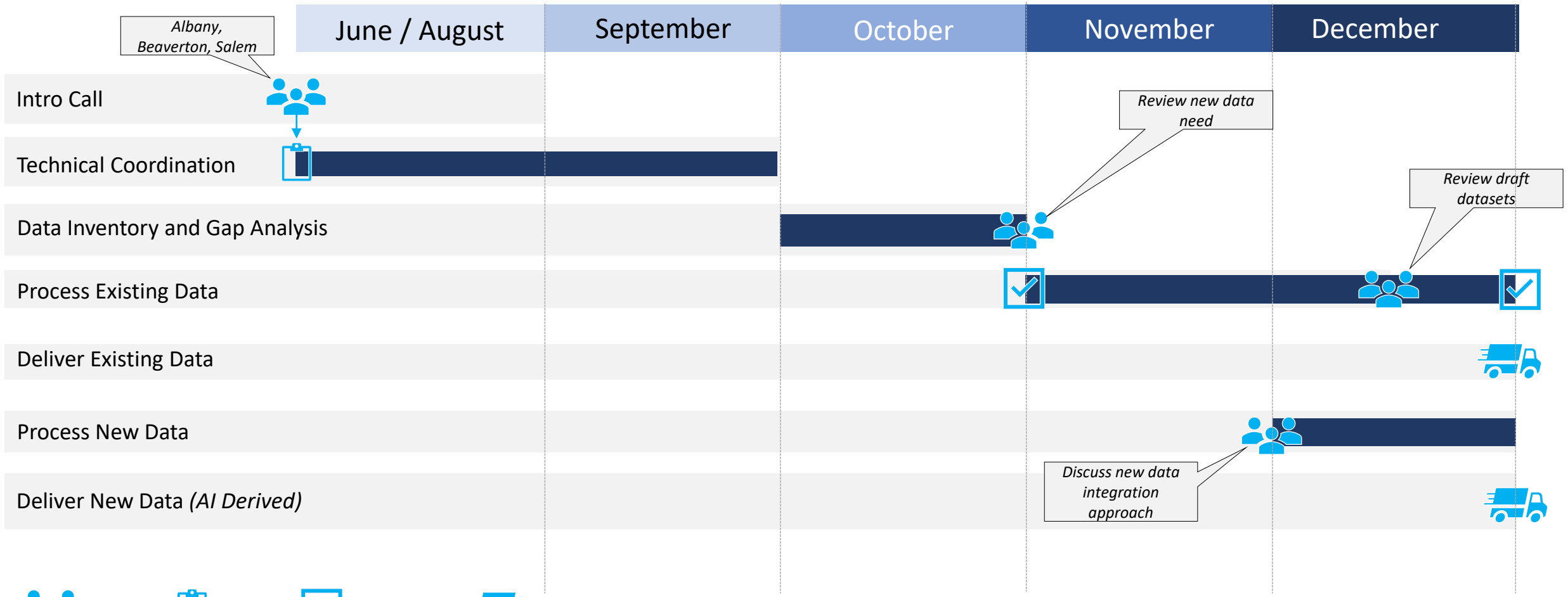
Data Check-out / Check-in

Data Delivery

Data Inventory

- Will be rolled out to CFEC jurisdictions as the project prepares to collect their data
- Pilot jurisdictions will be first to complete - this year
- Coordination Work Flow:
  - Confirm points of contact for collecting existing GIS data
  - Understand where CFEC data layers exist today
    - Who collects and maintains them?
    - Any coverage, completeness, accuracy, or quality issues?
  - Prepare for a smooth data coordination process with each local partner

PILOT EFFORT



Partner Engagement

Partner Engagement and Coordination

GOALS

- Reach consensus on data collection & management approach
- Make the data as useful as possible, within budget
- Understand internal and external data needs, priorities, and opportunities
- Gain commitment to long-term data management
- Educate internal and external stakeholder on multimodal data

Partner Engagement and Coordination

On-going coordination with partners with data & CFEC responsibilities, including:

- Cities and counties in MPOs
- Regional governments
- Transit agencies with metro area data
- DLCD
- ODOT staff: planning, analysis, data services, programs and research

Ways We'll Engage

Activity	Audience	Frequency
Multimodal Inventory Steering Committee (MISC)	Internal	6x, every few months
Statewide Technical Advisory Committee (STAC)	External	5x, every few months
End User Survey	External	***Open now***
Data Intake Form	External	As we initiate data collection for each jurisdiction
Virtual Briefings	All	3x, every 6-9 months
ODOT Coordination Meetings	Internal	As needed for coordination between projects

End User Survey

- Launched in June - ***new close date: Monday July 30th!***
- Purpose:
  - Understand how agencies use transportation GIS data now
  - Understand how they'd like to use it in the future
  - Identify challenges related to data collection, analysis, management, etc.
  - Understand how stakeholders hope to use Inventory data
  - Identify how different staff/agencies want to be engaged
  - Identify data contacts and potential STAC members

Questions?

NEXT STEPS

- Close end user survey and analyze responses
- Move forward with pilot data collection with Albany, Beaverton, Salem
- Schedule first STAC in early fall