

# WASHINGTON STATE ROAD USAGE CHARGE

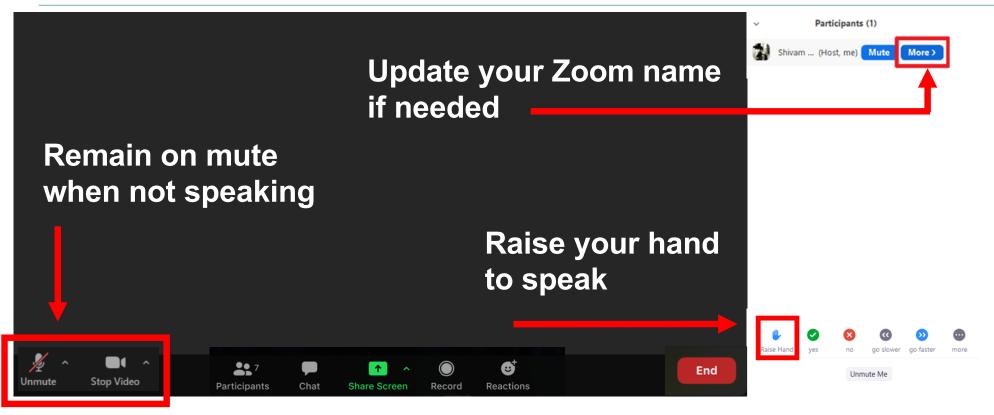
Steering Committee Update Forward Drive Project

Technical difficulties?
Call or text Darcy Edmunds, 518-396-9766



December 8, 2020 Virtual Meeting

### **Zoom Interface and Controls**



Technical difficulties? Call or text Darcy Edmunds, 518-396-9766

WA RUC 2

## Agenda

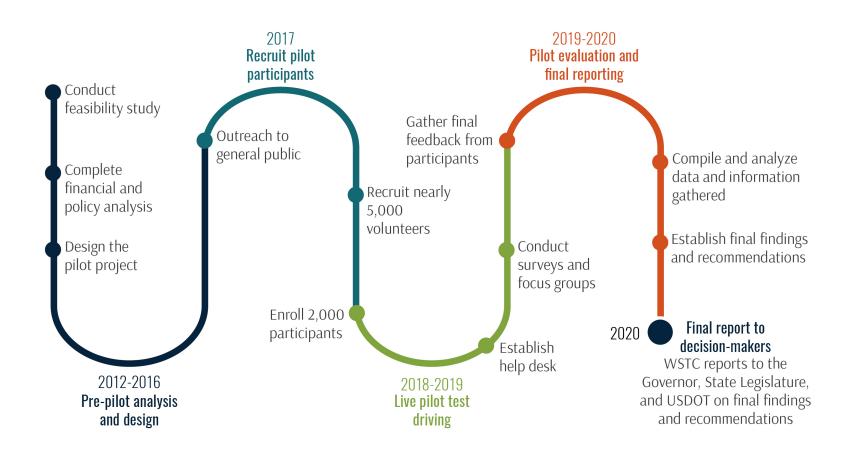
10 AM	Welcome and Introductions
10:10 AM	Recap of 2020 RUC Recommendations and Legislative Direction
10:20 AM	Forward Drive Research: Work Plan for 2020-2021
11:00 AM	Break
11:05 AM	Forward Drive Testing: Work Plan for 2022-2023
11:20 AM	RUC Steering Committee Future Plans & Role
12:00 PM	Adjourn WA RUC 3

### RECAP OF 2020: RUC RECOMMENDATIONS AND LEGISLATIVE DIRECTION

Jeff Doyle Milestone Solutions



### The WARUC Assessment & Pilot Project Journey, 2012 – 2020



### Roles in Assessing, Recommending and Deciding RUC in Washington

WA RUC Steering Committee MEASURES	Transportation Commission <b>RECOMMENDS</b>	Legislature <b>DECIDES</b>
<ul> <li>Oversee all research to ensure it is thorough and accurate</li> <li>Identify issues of importance or concern for indepth research ("parking lot")</li> <li>Design a RUC demonstration to test operational approaches and measure public acceptance</li> <li>Present information and options to fairly reflect the full range of viewpoints</li> </ul>	<ul> <li>Receive the Pilot Project Report from the Steering Committee</li> <li>Make recommendations on issues related to RUC</li> </ul>	<ul> <li>Receive the Final Report and Recommendations from WSTC</li> <li>Decide whether (or how) to implement a RUC</li> </ul>
<ul> <li>Provide guidance on technical and operational issues</li> </ul>		

### 2019 WSTC Road Usage Charge Recommendations to the Legislature (1 of 3)

- R1 Recommend implementation options that allow RUC to gradually scale up, offering drivers an opportunity to try the system and recommend further improvements while RUC is still in an early-implementation stage.
- R2 Recommend that additional research be conducted (alone or in collaboration with other states) on differential RUC rates based on driver, vehicle, or infrastructure characteristics.
- R3 Recommend research be conducted in collaboration with other states that are implementing RUC to better understand compliance gaps and potential enforcement measures.
- R4 Recommend additional time and appropriate testing grounds (i.e., limited number of vehicles) to improve RUC before pursuing any wider statewide implementation.
- R5 Recommend that in an Initial start-up stage of RUC, compliance and enforcement mechanisms must be tested and developed.
- Recommend that existing delivery mechanisms (e.g., public-private partnerships) be considered to most efficiently develop a RUC system that reduces the cost of collections.



### 2019 WSTC Road Usage Charge Recommendations to the Legislature (2 of 3)

- R7 Recommend that cost reduction strategies be tested on a limited set of vehicles in an Initial start-up stage of RUC.
- R8 Recommend that border-area testing be conducted in an Initial start-up stage of RUC.
- R9 Recommend that ODOT's OReGO program be engaged to further explore bi-state RUC solutions for frequent WA-OR travelers.
- R10 Recommend specific changes in Washington statutes that protect personal privacy in a RUC program.
- R11 Recommend testing of new personal privacy protections during an Initial start-up stage of RUC.
- R12 Recommend that state agency vehicles be utilized as test subjects for privacy protection testing.
- R13 Recommend that during a transitional period while the gas tax remains in place, the same policy-setting and oversight roles between the Legislature, WSTC, and other agencies and the private sector should be retained.

### 2019 WSTC Road Usage Charge Recommendations to the Legislature (3 of 3)

- R14 Recommend alternative RUC transition scenarios for legislative consideration in 2020 that specifically consider:
  - Participants' preferences for implementation time frame and vehicles subject to RUC;
  - Advent of electric and high MPG vehicles, their effects on revenue, and current programs to incentivize adoption;
  - The need for continued development and testing of a RUC system before any wide-scale implementation;
  - Forward Drive project timing, which is aimed at reducing the cost of collections for RUC; and
  - The availability of state fleet vehicles as part of an Initial start-up stage for RUC.
- R15 Expenditures of RUC revenue should be made subject to Amendment 18 (restricted to highway purposes).
- R16 Current programs that receive gas tax refunds attributable to non-highway activities should continue receiving their same share of funding during the transitional period to RUC (expected to be at least 10 to 25 years), since the state gas tax will remain in place during this transition.

### 2020 Road Usage Charge Legislative Direction

#### ESHB 2322 (Supp. transportation budget, April 2020)

- ✓ Report to Steering Committee every 3 months until the final report is submitted (complete)
- ☐ Thereafter, report to Steering Committee as necessary to keep it apprised of developments and obtain input
- ✓ Coordinate with WSDOT to seek federal grant funds for Forward Drive project (complete)
- ✓ By January 2020, provide a year-end status report on the federal grant-funded activities to the legislature and Governor (complete)
- ☐ By January 2021, provide a year-end status report on the federal grant-funded activities to the legislature and Governor

#### **Current Status**

- WA RUC Assessment & Pilot Final Report (Jan 2020)
- December 2020 WA RUC Steering Committee meeting
- Successful: FHWA provided full grant funding (Jul 2020)
- ❖ WA RUC Assessment & Pilot Final Report (Jan 2020)
- Draft status report to be adopted by WSTC in December 2020

### Legislative Direction for Forward Drive project (ESHB 2322, April 2020)

- A. Create a framework for modeling the effects of a RUC on passenger and light-duty vehicles, including plug-in EVs, autonomous vehicles, state fleets, and transportation network companies (e.g., Uber, Lyft) on a RUC system.
- B. Identify and measure potential disparate impacts of RUC on communities of color, low-income households, vulnerable populations, and displaced communities.
- C. Incorporate emerging approaches to mileage reporting, such as in-vehicle telematics, improved smartphone apps, and use of private businesses to provide odometer verification and mileage reporting services, into a RUC system.
- D. Conduct a series of facilitated work sessions with other states and the private sector firms to identify opportunities to reduce the cost of collections for RUC.
- E. Develop a RUC phase-in plan that incorporates A through D above.
- F. Conduct limited-scale tests of new mileage reporting methods; equity policies; cost reduction techniques; and collecting RUC from PEVs, AVs, state fleets, TNCs, and other new mobility services.
- G. Produce a final report, recommendations and a roadmap for how RUC can be scaled to fit (Washington state) circumstances and includes a framework for evaluating policy choices related to use of RUC revenue.



### FORWARD DRIVE RESEARCH PLAN: 2020-2021

Travis Dunn, Project Manager Milestone Solutions



### Forward Drive Project Team



















### Forward Drive: WSTC's 2019 Federal STSFA Grant Proposal (1 of 2)



1. New mobility & RUC financial modeling: create a framework for modeling the effects of EVs, A/Vs, and TNCs on a RUC system in Washington



3. Enhanced mileage reporting methods: incorporate latest approaches to mileage reporting into a WA RUC system: in-vehicle telematics, improved smartphone apps, payat-the-pump, etc.



2. Equity analysis: identify and measure potential disparate impacts of RUC to communities of color, low income households and vulnerable populations



4. Administrative cost reduction "scrum": workshops with other states to identify ways to reduce cost of collections for state RUC systems

### Forward Drive: WSTC's 2019 Federal STSFA Grant Proposal (2 of 2)



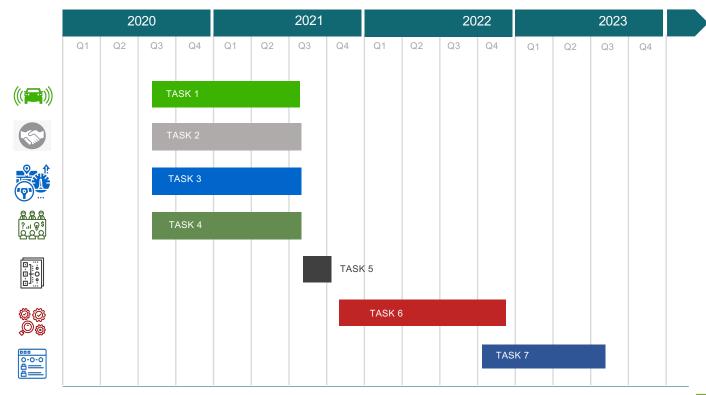
**5. Detailed pilot phase-in plan**: takes into account findings from financial analysis, equity analysis, enhanced mileage reporting approaches, and cost reduction scrum



**6. RUC prototype "sub-test"**: conduct a small-scale test of new mileage reporting methods, equity policies, collecting RUC from TNCs and shared ride vehicles, and cost reduction techniques

7. RUC roadmap: detailing how
Washington and other states can rightsize a RUC policy and system to fit
their circumstances (including a
framework for how policy choices can
be reexamined in light of increases in
RUC revenue and allocations)

### Forward Drive Schedule



### TASK 1: FINANCIAL MODELING AND NEW MOBILITY

Zubair Ghafoor CDM Smith



### Approach for Modeling Revenue Impacts of Mobility Trends

Scenarios: illustrative futures that capture a range of opinions about trends in the economy and mobility such as electrification, teleworking, ridesharing, and autonomy

Outputs: RUC revenue, fuel tax revenue, fee revenue, and cost of collections for a variety of scenarios across a range of policy assumptions Outcomes: User-friendly modeling tool for examining policy choices and their impacts on transportation revenue under a range of circumstances, to inform Commission recommendations

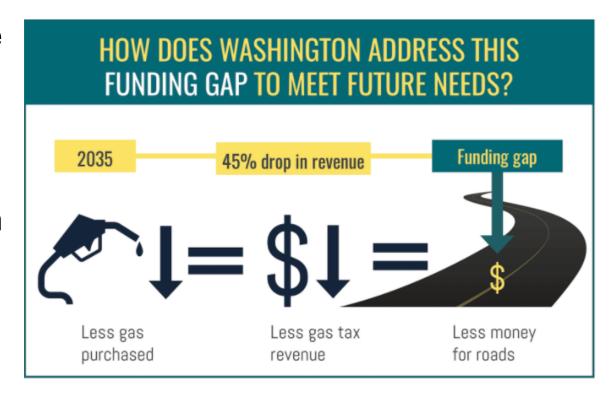
### Scenario Development

- Develop three alternative scenarios for trends such as teleworking and market penetration of PEVs, AVs, TNCs and other "new mobility" services
- Develop an excel-based methodology and parameters for factoring in scenarios into revenue modeling
- Use available datasets such as Energy Information Administration (EIA) Annual Energy Outlook as references in scenario generation



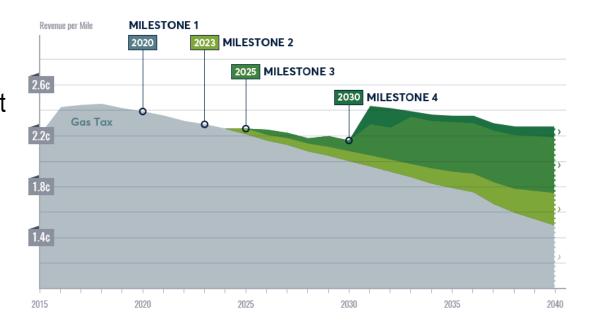
### Outputs: Fuel Tax and RUC Revenue Estimation

- Forecast VMT and estimate net RUC revenue and fuel tax revenue (base case) for three scenarios using the updated model
- Calculate cost of collection (and net revenue) based on updated mileage reporting methods and RUC delivery configuration options
- Forecast horizon: 2050



### Outcomes: Updated Financial Model Tool

- The project team will modify previously developed WA RUC financial models to estimate RUC operational costs based on different RUC Mileage Reporting Methods (MRMs) and delivery configurations.
- Major component of this effort will be an update of input assumptions/data and unit costs where applicable.





### TASK 2: EQUITY ANALYSIS

Sherrie Hsu BERK Consulting Henry Yates Yates Consulting



### Equity Analysis: Define and Assess

Our approach seeks to Define, Assess, Engage, and Mitigate

#### Define

- Who are the populations of interest? Identify specific communities for outreach, including "vulnerable populations" based on WSTC and Legislative consultation
- How is equity defined for analytic purposes?
  - Earlier work used horizontal equity equal treatment through a usage charge pay for what you use
  - Vertical equity progressive with respect to income ability to pay
  - In addition to **financial equity** (affordability ability to pay with respect to amount and timing ongoing versus lump sum) we will consider **systems equity** (accessibility, including ability to interact with and comply with a RUC system in terms of user interface and technology, language, trust)
  - **Process equity** (ability to participate in and shape policy and implementation through) will be address through engagement and participatory design

#### Assess:

 Analyze the pros and cons of a RUC on its own and relative to existing transportation revenue sources (gas tax, EV/hybrid flat fees) to identify potential disparate impact

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### Equity Analysis: Engage

#### **Engage**

#### Steps to Equitable & Accurate Assessment of RUC on low-income communities and communities of color

- 1. Reach out to organizations representing low income populations, communities of color, and vulnerable populations
  - Statewide large and small communities, rural and urban
  - Broad and Inclusive
  - Sensitivity to language and culture
  - Offer anonymity (privacy protection)
- 2. Techniques for participation
  - Surveys
  - Focus Groups/ group meetings by geography
  - Attendance at events/existing meetings
  - Email

- Telephone
- Social media
- Ethnic media
- 3. Provide well-produced, understandable and clear information
- 4. Tabulate and identify key themes

### Equity Analysis: Mitigate and Report Back

#### **Mitigate**

- Identify legal, operational, financial and policy options and measures capable of mitigating any potential disparate impacts of RUC
  - ▶ Co-design possible solutions: inclusive research with those most affected
  - Test prototypes: simulate approaches that feature system accessibility
  - Develop policy approaches: evaluate and present a range of system approaches policy adjustments that address disparate impacts

#### **Engage**

- Go back to organizations with proposals
- Conduct three or four focus group sessions compensate org/participants
- Regular WTSC and other briefings on progress

### TASK 3: ENHANCED MILEAGE REPORTING METHODS

Roshini Durand Milestone Solutions



### Enhance Mileage Reporting Methods Through Research and Design



1. Build on past efforts: Identify opportunities to enhance Mileage Reporting Methods (e.g. MileMapper™ smartphone app) piloted in WA RUC and expand the network of reliable service partners to support a range of in-person RUC services



3. Build RUC scenarios: Use a selection of technologies and system components evaluated during the research phase to design RUC Application concepts that can be tested in pilots (Task 6.)



2. Explore new opportunities. Identify emerging technologies and evaluate their feasibility, viability and potential for supporting RUC collection, operations, and policy objectives (e.g. equity, cost effectiveness, security, privacy protection)



4. Conduct Industry outreach (in parallel): Build relationships with technology providers and service partners that can develop RUC Application scenarios and support live pilot operations.



### Optimize Existing Technology



- **Description:** Build on past efforts to identify opportunities to enhance Mileage Reporting Methods piloted in WA RUC and expand the network of reliable service partners to support a range of inperson mileage reporting venues
- **Outputs:** Inventory of improvements to existing RUC Technologies, systems and RUC partners along with an analysis of benefits, drawbacks, challenges and opportunities they present to enhance existing RUC solutions.

### **Explore Emerging Technology**



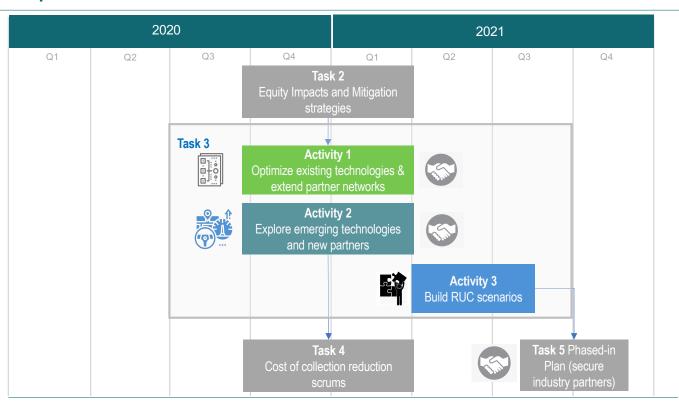
- **Description:** Explore new opportunities to identify emerging technologies and evaluate their feasibility, viability and potential for supporting RUC collection, operations, and policy objectives
- Outputs: Inventory of emerging technologies, systems and new partners along with an analysis of benefits, drawbacks, challenges and opportunities they present to they present to advance the state of RUC practice.

### **Build RUC Scenarios**



- **Description:** Use a selection of technologies and system components evaluated during the research phase to build RUC Application concepts that can be tested in pilots (Task 6.)
- Outputs: Design documents based on open system and performance standards that will be used to develop RUC Application concepts that will be tested in pilot

### Relationships to Other Research Tasks





### TASK 4: COST OF COLLECTION REDUCTION "SCRUM"

Travis Dunn Milestone Solutions



### Cost of Collection Reduction Scrum Approach

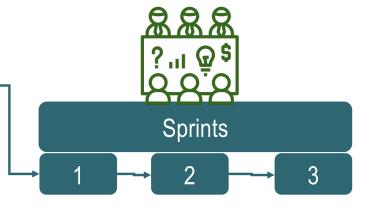
## Background research and initialization

- Create cost analysis framework based on current approaches to RUC (Oregon, Utah, New Zealand, WA RUC)
- Create challenge statements for each sprint
- Invite partner agencies

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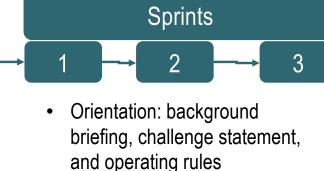


- Orientation: background briefing, challenge statement, and operating rules
- 1-2 weeks of dedicated work on challenge statement
- Presentation of findings and debrief for next sprint

### Cost of Collection Reduction Scrum Approach

## Background research and initialization

- Create cost analysis framework based on current approaches to RUC (Oregon, Utah, New Zealand, WA RUC)
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### Report out

- Public policy elements to consider for RUC legislation
- System design concepts
- Concepts and recommendations for pilot testing
- Concepts and recommendations for other states and federal government in pilot testing or implementations



### BREAK



## TASK 5: DETAILED PHASE-IN PLAN FOR PILOTS

Ging Ging Fernandez Milestone Solutions

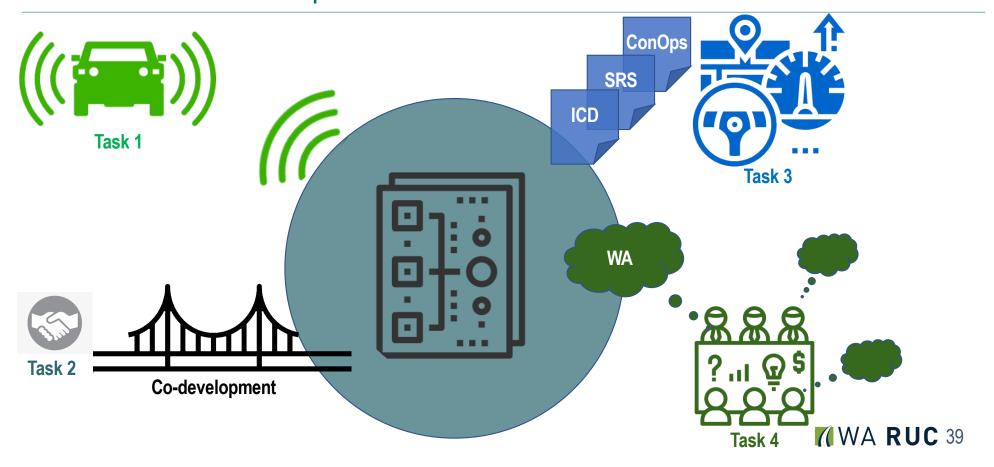


#### Incorporate Research Findings into a Comprehensive Pilot Testing Plan

Based on the results of Tasks 2 through 4, the project team will prepare a detailed plan and technical documentation for testing:

- Develop a plan to test the mitigation measures and strategies identified in the equity analysis and outreach (Task 2).
- Develop technical requirements to test and implement enhanced mileage reporting methods (Task 3)
- Develop a detailed plan for applying cost of collection reduction measures and strategies identified in the cost of collection reduction scrum (Task 4).

## Assemble Diverse Concepts into One Multi-faceted Pilot



# TASK 6: RUC PROTOTYPE AND SUB-TESTS

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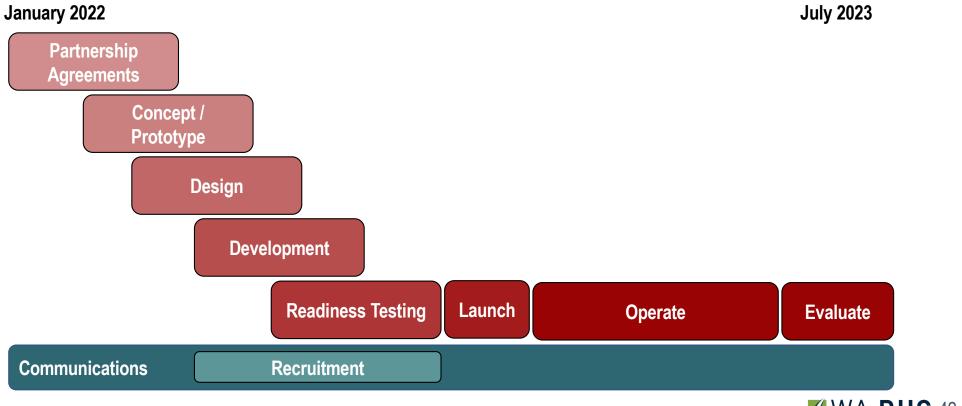


# Conduct Tests of New Mileage Reporting Methods, Equity Mitigation Approaches, and Cost Reduction Techniques

Based on the detailed phase-in plan (Task 5), the project team will put the concepts that emerge to test

- 1. Enter into partnership agreements and interagency memoranda of understanding with public and private sector partners to provide RUC-related services for a pilot test of these new approaches.
- 2. Recruit participants for the sub-tests.
- 3. Conduct public, media, and participant communication activities about the RUC prototype sub-tests.
- 4. Conduct the test of new RUC applications along side any larger, legislatively-authorized RUC program, to leverage ongoing activities and gain efficiencies in the sub-tests.

#### Creating an Exceptional Participant Experience



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#### WARUC Website Update Roadmap



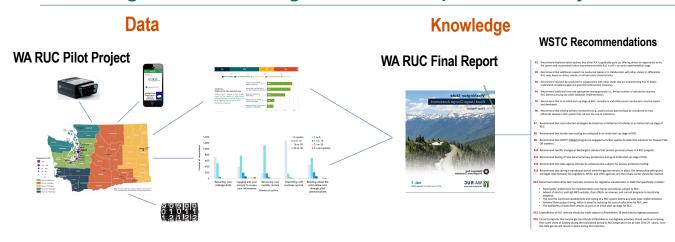
factsheets/documents

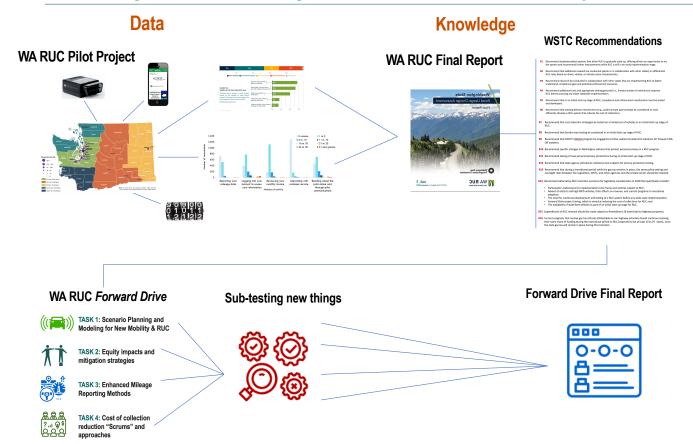


#### TASK 7: FINAL REPORT AND RUC IMPLEMENTATION ROADMAP

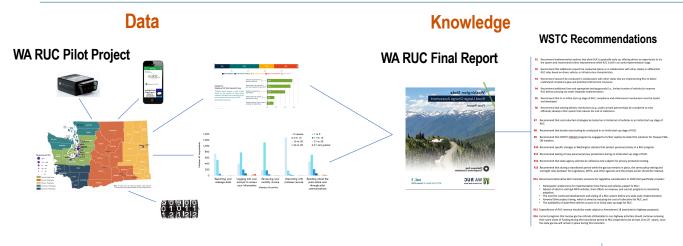
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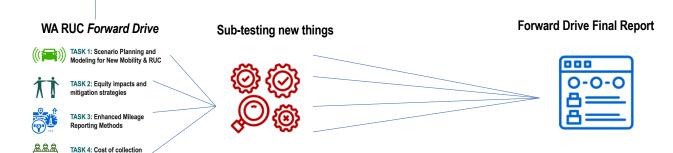


WA RUC 46



#### Legislature:

we need "a framework for how policy choices can be reexamined" in light of changing revenues and circumstances

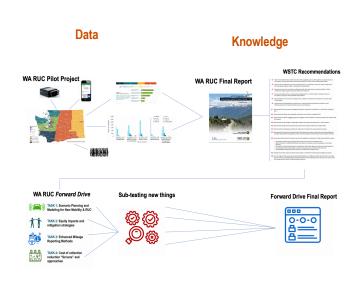


reduction "Scrums" and

#### **USDOT:**

we need to know how RUC can work beyond Washington state

WA RUC 47



#### Legislature:

"we need a framework for how policy choices can be reexamined" in light of changing revenues and circumstances

#### **USDOT:**

we need to know how RUC can work beyond Washington state

#### **RUC Roadmap**

Will include:

**Develop a Framework** for how transportation policy choices can be reexamined in light of forecasted (future) increases in RUC revenue collection

**Document Strategies and Next Steps** that states could take (individually or collectively) to reduce RUC cost of collection. Where relevant, include information and findings that could apply to a federal level mileage-based fee system.

**Provide Mitigation Measures** that include a range of approaches that states could take to introduce mitigation measures for RUC aimed at achieving greater income equity, social equity (such as accessibility and language barriers to RUC implementation), and other findings.

**Custom-fit Mileage Reporting Methods**: provide a synthesis of new or improved Mileage Reporting Methods, including which are best fits for other jurisdictions based on characteristics

#### Forward Drive: How the 7 Tasks Work Together





TASK 2: Equity impacts and mitigation strategies



TASK 3: Enhanced mileage reporting methods



TASK 4: Cost of collection reduction "scrum"

Schedule: 39 months (October 2020 – December 2023)









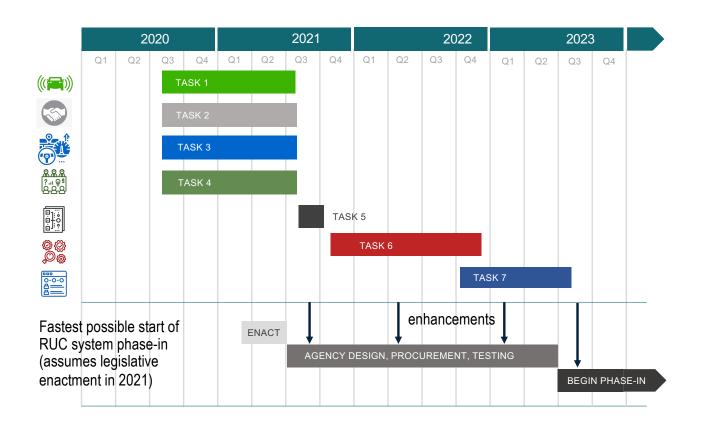


TASK 5: Detailed pilot phase-in plan

TASK 6: RUC prototype and "sub-tests"

TASK 7: Final report and RUC roadmap

#### Possible Forward Drive + RUC Program Interactions



## RUC STEERING COMMITTEE FUTURE PLANS AND ROLE

Reema Griffith, Executive Director Washington State Transportation Commission

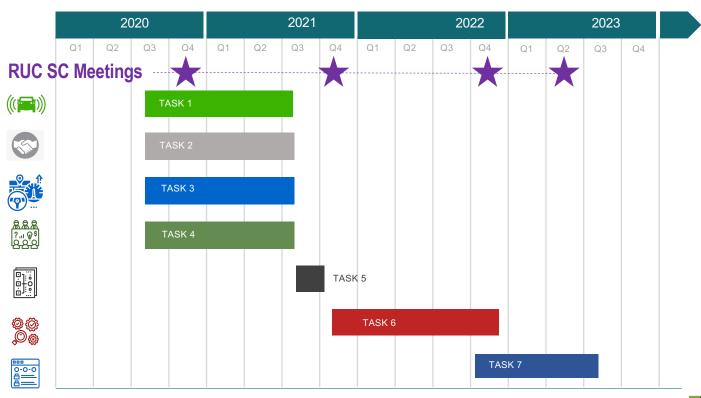


#### Possible Steering Committee Roles

- Review materials and provide feedback
  - Members receive periodic updates on project activities via email
  - Subcommittees provide feedback on technical reports
- Meet to review findings at major milestones and provide collective input
  - Q4 2021: Review results of research phase and concepts planned for testing phase
  - Q4 2022: Review interim findings from testing
  - Q2 2023: Review final report on Forward Drive
- Participate in research and testing
  - Support recruitment of test subjects
  - Volunteer to experience the testing phase



## Steering Committee Example Meeting Schedule





# **Questions & Discussion**



# CONTACT INFORMATION

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Consultant support provided by:











