The Eastern Transportation Coalition
RITIS User Group Web Meeting – February 6, 2025
Question and Answer Summary

Note: Results from polling questions asked during this web meeting are at the bottom of the document.

Overview of the new PDA Suite Energy Analytics Modules and Methodologies

Q: **Mena Lockwood (Virginia DOT):** Is any other data available from vehicle registrations? Not sure what would be most useful, but anything that would help identify the penetration rate of certain safety features might help correlate to safety data.

A: Michael Pack (University of Maryland CATT Lab): We are working on getting other information, but right now, the engine type is the only data we're focusing on for this effort. Other datasets include VIN #s that would provide some of the additional info that you're talking about, but we don't have that yet.

Q: **Sam Granato (Ohio DOT):** How can you do profiles of specific roadways unless you know the origin and destination points of the traffic on that road?

A: Michael Pack (University of Maryland CATT Lab): The model makes assumptions about the engine types of vehicles registered in the region of roadways being used.

Q: **James Li (MWCOG):** Do the tools consider "vehicle classification" by any chance?

A: Michael Pack (University of Maryland CATT Lab): If by "Vehicle Classification" you're talking about length/axles, then that's something we're considering for future use. We don't have a solid national volume data set that includes vehicle classification data on all roads.

Q: **Nataly Rios (Los Angeles DOT):** Mark, has your team done any separate validation of the INRIX speed data? LADOT is comparing the data to our manual counts/speed limit information and is finding discrepancies. I would appreciate any resources you can share!

A: Michael Pack (University of Maryland CATT Lab): We independently validate speed data from INRIX, HERE, TomTom, and others. The evaluations are posted on one of our websites. Once on that website, click on the "Data Validation Reports" tab near the bottom. We can hook you up with the leader of these studies and/or walk you through what we're seeing. I can send you the links.
https://tetcoalition.org/projects/transportation-data-marketplace/

Q: **Gil Grodzinsky (Georgia Environmental Protection Division):** Because we are now up to the MOVES5 version and wonder how hard it is for you to update this for new MOVES versions. The good news is that the MOVES4 and MOVES5 updates were more involving heavier vehicles and transitioning to EVs in the future. Before 2030, the EV fraction is small.

A: Mark Franz (University of Maryland CATT Lab): We will investigate the updated versions to see if we can adjust our model. We are only modeling tailpipe emissions.

C: Gil Grodzinsky (Georgia Environmental Protection Division): Sounds good! To clarify, EF for EVs is zero except for tires PM, but I just wanted to mention that a big change with new versions is how much of the vehicles is assumed for inventory mode as EVs. That is not relevant for EFs, so hopefully, updating to newer MOVES won't change things too much. But if you do add heavy-duty vehicles in the future, MOVES4 or later would be important because they updated EFs for freight, especially at low speeds.

Q: **Gil Grodzinsky (Georgia Environmental Protection Division):** When you say "light-duty vehicles," do you mean GVWR 10,000 lbs. or less (MOVES light duty is 10K or less GVWR)? Does this include light-duty commercial vehicles or only light-duty personal vehicles (MOVES vehicle types 21 and 31 are personal, and 32 is a commercial light-duty truck)?

A: Mark Franz (University of Maryland CATT Lab): We are currently only modeling light-duty personal vehicles.

C: Gil Grodzinsky (Georgia Environmental Protection Division): For light-duty vehicles, they worked a bit on start emissions (lower) with new versions, which would not have a big impact on your staff focused on running emissions. Also, not looking into the future at new standards with newer versions would be less impactful.

Q: **Subham Kharel (Lehigh Valley Planning Commission):** Can you also share the methodology for estimating energy usage?

A: Michael Pack (University of Maryland CATT Lab): We will be posting information on the methodology on our help pages in the coming weeks.

Note: **Ben Chaney (Oregon DOT):** Very cool! It was exciting to see this tool live. Looks a lot easier than MOVES.

Q: **Michael Iacono (Minnesota DOT):** What is the source of vehicle fleet data?

A: Michael Pack (University of Maryland CATT Lab): We purchase vehicle registration data nationally from the private sector. However, some agencies also provide their registration data.

Q: **Gil Grodzinsky (Georgia Environmental Protection Division):** First, you say you don't use MOVES, but then you have MOVES3 emissions factor tables. Do you run MOVES3 in emission factor mode and then don't have to run it anymore? Second, you say no commercial vehicles. So, does that mean just light-duty passenger cars and trucks? Includes motorcycles? Any more than 10K GVWR? Using energy for use CO2, is any life cycle considered in the future? Lastly, do other fuel types include E85?

A: Mark Franz (University of Maryland CATT Lab): The estimation is based on the MOVES 3 emission factors and is applied to each query. Next, we are only modeling light-duty cars and trucks. No motorcycles or heavy vehicles currently. We do not currently include life cycle considerations, only the tailpipe emissions for the dates in the query. We do not currently model E85. We will take note of these recommendations and consider them for future enhancements.

Q: Gil Grodzinsky (Georgia Environmental Protection Division): To clarify, who ran MOVES3 to get the emission factor tables? Did you all do it?

A: Mark Franz (University of Maryland CATT Lab): Our partners at the Maryland Transportation Institute ran the MOVES3 model for us.

Q: **Mohammad Shaheed (Maricopa Association of Governments):** Have you given thought to comparing your results with similar services provided by other commercial platforms, such as Streetlight's GHG measurement?

A: Michael Pack (University of Maryland CATT Lab): We are running studies to compare actual emissions (as measured by sensors). This is something we've been working on with NIST.

Q: Mohammad Shaheed (Maricopa Association of Governments): For the performance measures that were shown, do you envision coming up with a combined PM incorporating the emission indicators described?

A: Mark Franz (University of Maryland CATT Lab): There are no immediate plans to estimate a combined emission PM. However, we welcome any ideas on this topic, as they will be considered for future enhancements.

Note: **Stan Young (The Eastern Transportation Coalition):** Mark and RITIS - great job incorporating Transportation Energy into RITIS!!!!

Q: **Collin Smythe (Vermont AOT):** Do these emissions estimates include all vehicles assumed to be on the road from the vehicle registration data combined with associated VMT, or is it limited to the vehicles included in the INRIX dataset?

A: Michael Pack (University of Maryland CATT Lab): We only use probe speed data (INRIX, HERE, or TomTom). Volume data comes from agencies or private sector providers that conflate volumes to segments. The vehicle registration data is from a third-party supplier that aggregates it from DMV/MVA databases in each state.

Q: **Ben Chaney (Oregon DOT):** What would be the benefit of agencies providing data? Is it just to have more recent data, or is there some other attribute or resolution advantage possible? As you know, I'm always interested in sending CATT Lab more data! (but I probably need to justify it to someone)

A: Michael Pack (University of Maryland CATT Lab): Your agency may be able to provide more recent data and/or data at a finer spatial granularity. You may also want to use your data to verify what we're getting from the private sector is correct.

Early Analysis of the LA Fires Using Probe and Trip Data

Q: **Nataly Rios (Los Angeles DOT):** Where is the speed data coming from?

A: Michael Pack (University of Maryland CATT Lab): For Greg Jordan's California Wildfire presentation, these data were donated by INRIX so that we could quickly analyze what's going on. For Mark Franz's presentation, the speed data comes from whomever the state purchased it from. So, some of the states Mark demoed may have been from INRIX, others from HERE, or maybe even TomTom. We don't particularly care where the data comes from and will accept it from anyone.

Q: **Juan Matute (UCLA Institute of Transportation Studies):** Will a recording be shared publicly? I know a lot of LA policymakers and others who will be interested in this presentation.

A: Michael Pack (University of Maryland CATT Lab): Yes. We make and post the recordings. However, this was just an initial analysis. We're actively working on more analysis and would be happy to provide a longer, more detailed webinar for policymakers if desired.

Using a PDA for identifying areas of excessive speeding

Q: **Karen Lorenzini (Texas DOT):** What do you think the potential is for applying the Corridor Speed Bin Tool as you demonstrated but looking at long-term construction zones for mobility challenges by specific area?

A: Rick Ayers (University of Maryland CATT Lab): Karen, absolutely a terrific application. A trend map would also be useful.

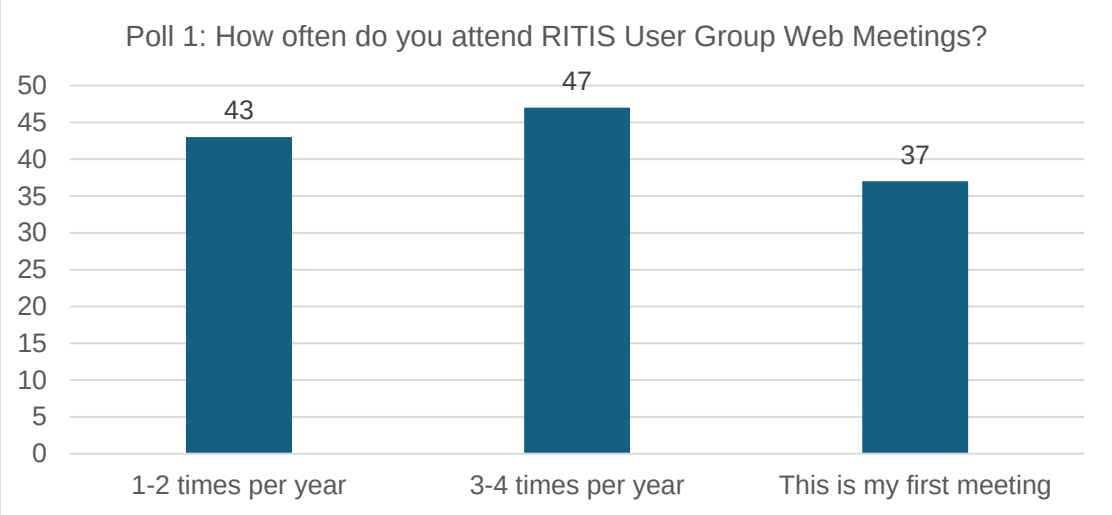
RITIS Product Enhancement Working Group and Enhancement Status Updates

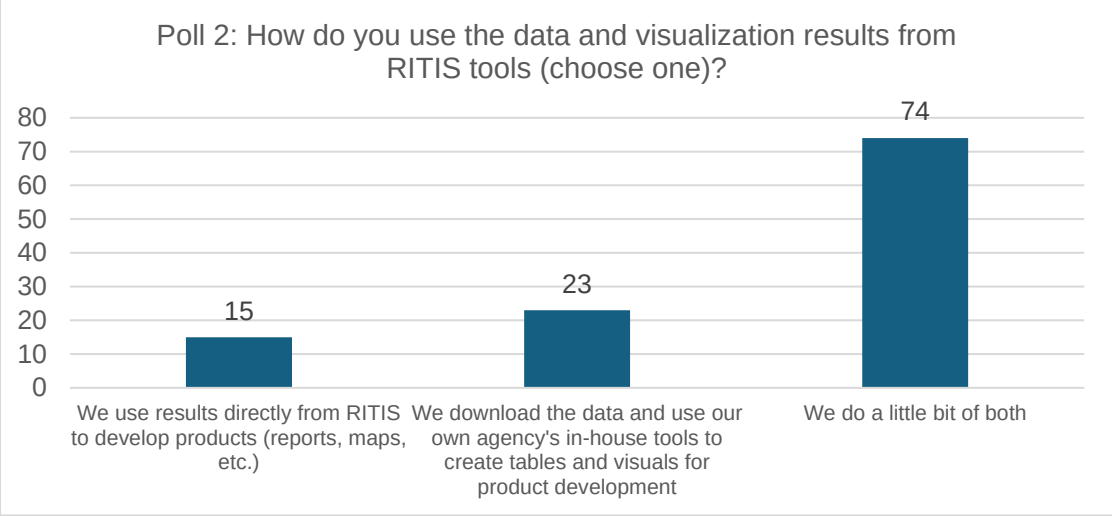
Q: **Kathleen Hancock (Virginia Tech):** Where can I find the XD API Enhancement information?

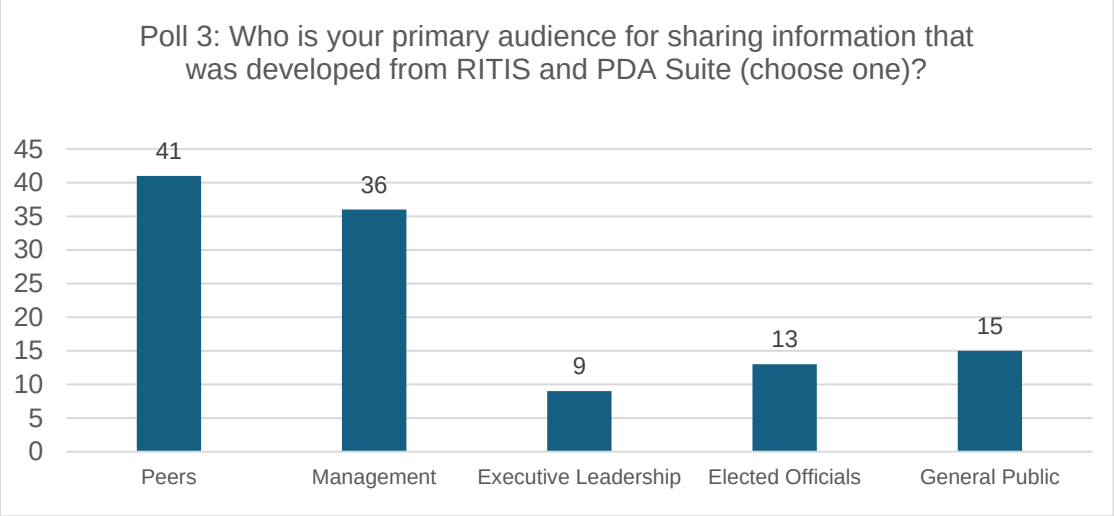
A: Michael Pack (University of Maryland CATT Lab): Email me at PackML@umd.edu, and I'll send you the documentation and other info on how to use it.

Q: **Matt Glasser (Arcadis):** For the truck parking data, who were you working with, and which vendors do you think will be able to provide that type of data for us to pull into the system?

A: Michael Pack (University of Maryland CATT Lab): We're still exploring all the different vendors that are out there. We believe that INRIX has data that can work for this. There is also Geotab, and there may be other vendors.






Poll 3: Who is your primary audience for sharing information that was developed from RITIS and PDA Suite (choose one)?
45
40
35
30
25
20
15
10
5
0
41
36
9
13
15
Peers
Management
Executive Leadership
Elected Officials
General Public