



MICHELIN

MOBILITY INTELLIGENCE

SAFER ROADS

04.03.2025

NVTA Project Kick-Off



- MMI Introduction
- Project Objectives/Overview
- Scope
- Project Insights
- Deliverables
- Timeline/Key Milestones



Data combination and Insights Generation



DATA COLLECTION

In-house and external data collection

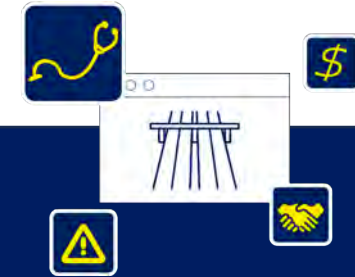
- ✓ **Users** via in app use
- ✓ **Vehicles** and other transportation means



DATA Combination

with multiple other sources

- ✓ **Public** and **open-source** data
- ✓ **Paid data** when required
- ✓ **Structured** and **unstructured** data



The power of Data
as a decision lever for:

- ✓ **Safer Roads**
Safety for all road users
- ✓ **Greener Roads**
Sustainable environment for citizens



Together, we can create a safer way forward
for all road users

Napa County is north of San Francisco, in California. It's known for hundreds of hillside vineyards in the Napa Valley wine region. It attracts lots of tourists throughout the year with the peak tourist season in August through October. Number of summer travelers starts to increase sharply in May.

Project Goal:

- NVRTA's primary goal for this project is to identify the safety risks (for all road users) on their road network that will help them to move forward with the Vision Zero plan to improve safety in the Napa county.
- With MMI insights, identify risky areas based on driving behavior which are not identifiable through past crash data.

Pain Points:

- High tourism activity brings high traffic, lots of VRUs (Pedestrians and Cyclists), and impaired driving, resulting in road safety issues across the county.
- Safety issues around tourism centers
- VRU and Speeding issues around school zones



Temporal Scope:

- April, May, June 2023
- April, May, June 2024

Geographic Scope: Napa County, California



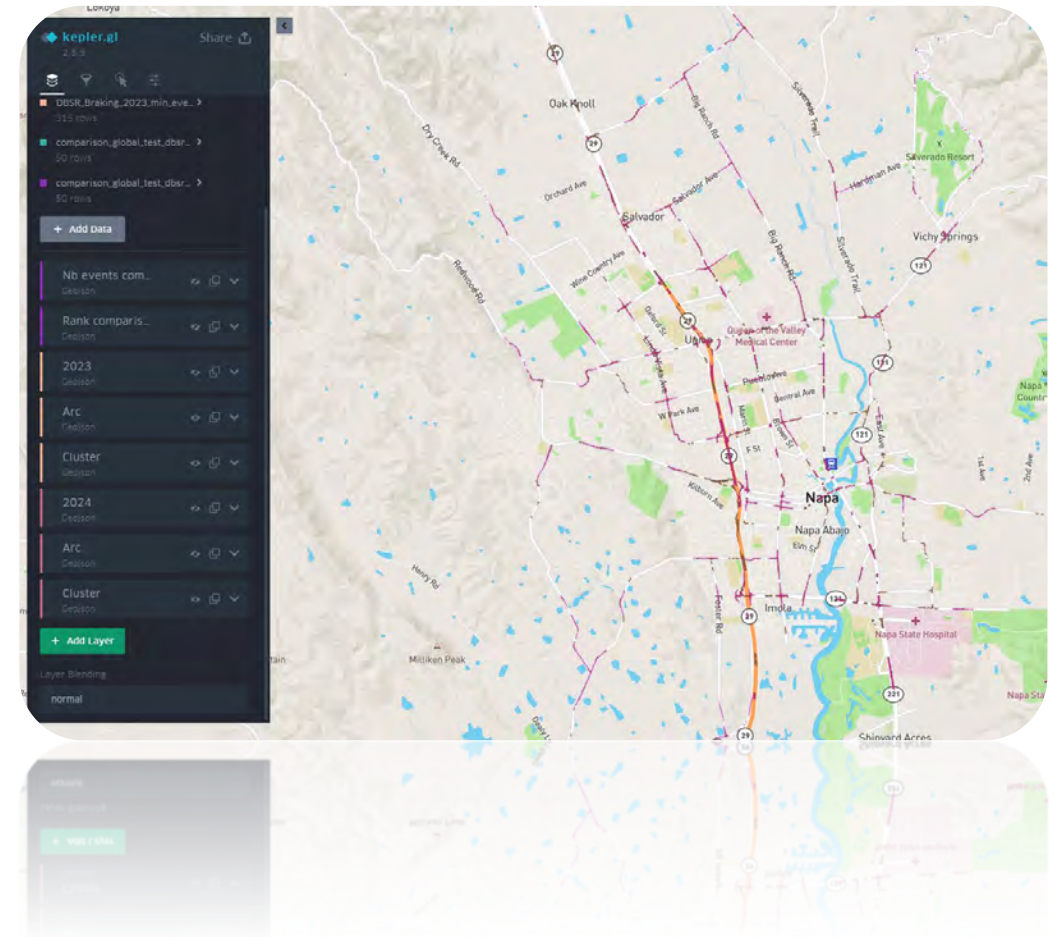
- **Locations of unsafe driving behavior (Napa County):** Provide overall driving behavior severity ranking in the Napa County along with deep dive insights into 3 focus areas.
- **Speed Insights** will help in detecting high speed hotspots and high-speed behavior in the county to help deploy resources and implement countermeasures in the most appropriate locations.
- **Before and After Analysis**
Compare the driving behavior insights - before and after driving behavior (Harsh Braking, Harsh Acceleration & Speed Insights) from two time periods to:
 - Identify impacts of infrastructure and enforcement changes even if there isn't any targeted area.
 - Understand the risk patterns which are common on both time frames.
 - Understand risk patterns which changed during the time frames.

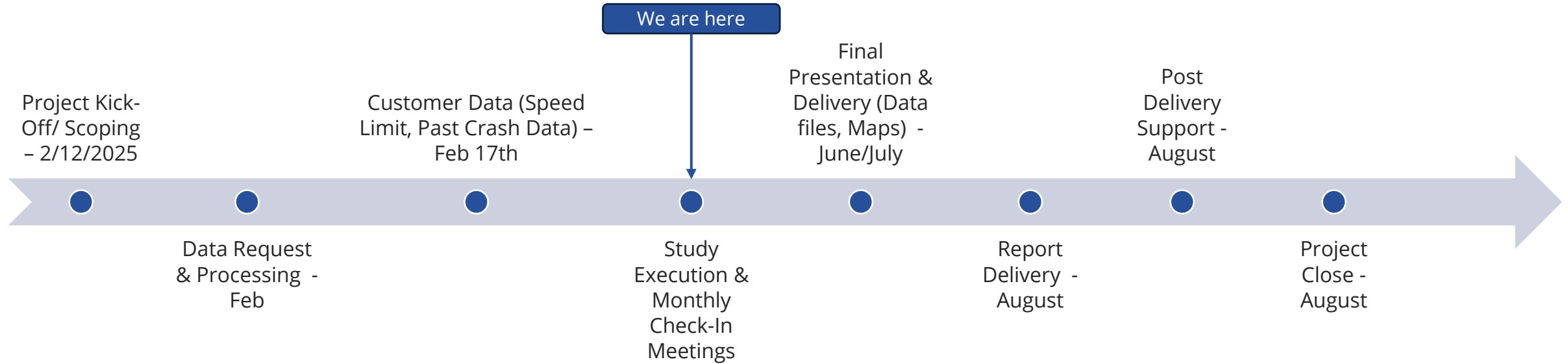
MMI will identify trends and changes throughout the county from one year to the next, taking into account road improvement projects and targeted enforcement efforts that happened between the two periods.

- **VRU and Vehicle Crash Risk:** Proactively identify areas that are at high risk for future crashes. This service uses past crash data, roadway features data, and driving behavior data (such as speed, harsh braking, harsh acceleration) to proactively assess the probability of locations with a high likelihood of a crash in future, regardless of whether there were previous crashes at these locations.
- **Focus on School Zones:** MMi will also focus on school zones to identify any patterns of risky behavior that may endanger students, parents, or other frequent users of school-adjacent road networks.



- **Insights**
 - Presentation with study results (Session by MMI to explain the results + Slides (PDF))
 - Interactive Maps
- **Data: 6 Months of Data**
 - Events Data (Harsh Braking, Harsh Acceleration)
 - Aggregated Speed Data
- **Report:** A report, having key slides and visuals to explain the main takeaways and trends to decision-makers to help justify future infrastructure changes and investments.





- **Monthly Check-In Meetings**
 - Review Project Status
 - Discuss findings and clarifications needed

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THANK YOU!

