SMART GRANTS PROGRAM

Detroit MODES

City of Detroit

PROJECT PARTNERS

MDOT
Tyme Engineering
Miovision
Urban Logiq
Derq
Sundberg-Ferar
Wayne State University
DDOT and City of Detroit Departments
LifeRemodeled
Warriors on Wheels
Eastern Community Network

PROJECT CHALLENGE

Detroit's challenges with traffic fatalities and limited mobility, especially in Historically Disadvantaged Communities (HDC), spurred the need for our SMART Detroit MODES project. This initiative deploys smart intersection technology in 22 locations, leveraging Derq software and existing Miovision cameras to collect real-time data. Urban Logiq will develop an advanced AI-based data analytics and display dashboard, Tyme Engineering will oversee design, MDOT will be an active data partner, and Wayne State will evaluate the system and its benefits.

IMPACT

The City of Detroit plans a project focusing on intersections serving Transportation Disadvantaged Communities. About 75% will be in Historically Disadvantaged Communities. Up to 22 smart intersections will be created, chosen based on cost and traffic incidents. The project aims to inform future expansion plans for over 100 intersections, with a focus on HDCs. Data collected will demonstrate scalability, network analysis, and dashboard integration. Improving intersection safety can boost shared mobility access, fostering economic growth.

CURRENT STATE OF THE ISSUE

Detroit, America's Motor City, is consistently on the list of major metropolitan areas with the highest rates of traffic fatalities. The City of Detroit's Comprehensive Safety Action Plan highlights a total traffic fatality rate of 28.71 for every 100,000 people, which ranks as the second highest rate compared to other major US cities.

POLICY QUESTIONS

1. How can smart intersection technologies be effectively deployed to mitigate traffic fatalities and enhance equity in historically disadvantaged communities? 2. What are the most effective strategies for integrating diverse data sources into centralized dashboards to inform equitable transportation decision-making? 3.How can collaborative partnerships between local government, academia, and technology providers be leveraged to maximize the impact of smart city initiatives like Detroit SMART MODES?

STAGE 1 OUTCOMES

Successfully collect and integrate diverse sets of traffic data. Develop methodology for and insights from the analyses of root causes of crashes and the evaluation of interventions' impact. Reduce time spent on crash analysis, crash intervention, and impact of mitigation. Calculate and improve cost savings based on reduced crashes and decision-making efficiency.

STAGE 2 VISION

The vision is to eliminate serious injury and fatal crashes in Detroit for all modes of mobility as per the City's Comprehensive Safety Action Plan. Expanding to Stage 2 scales smart intersections to over 100, integrating advanced analytics and community collaboration. This broader deployment could greatly cut traffic fatalities and set a national example for smart city initiatives through safety and equity.