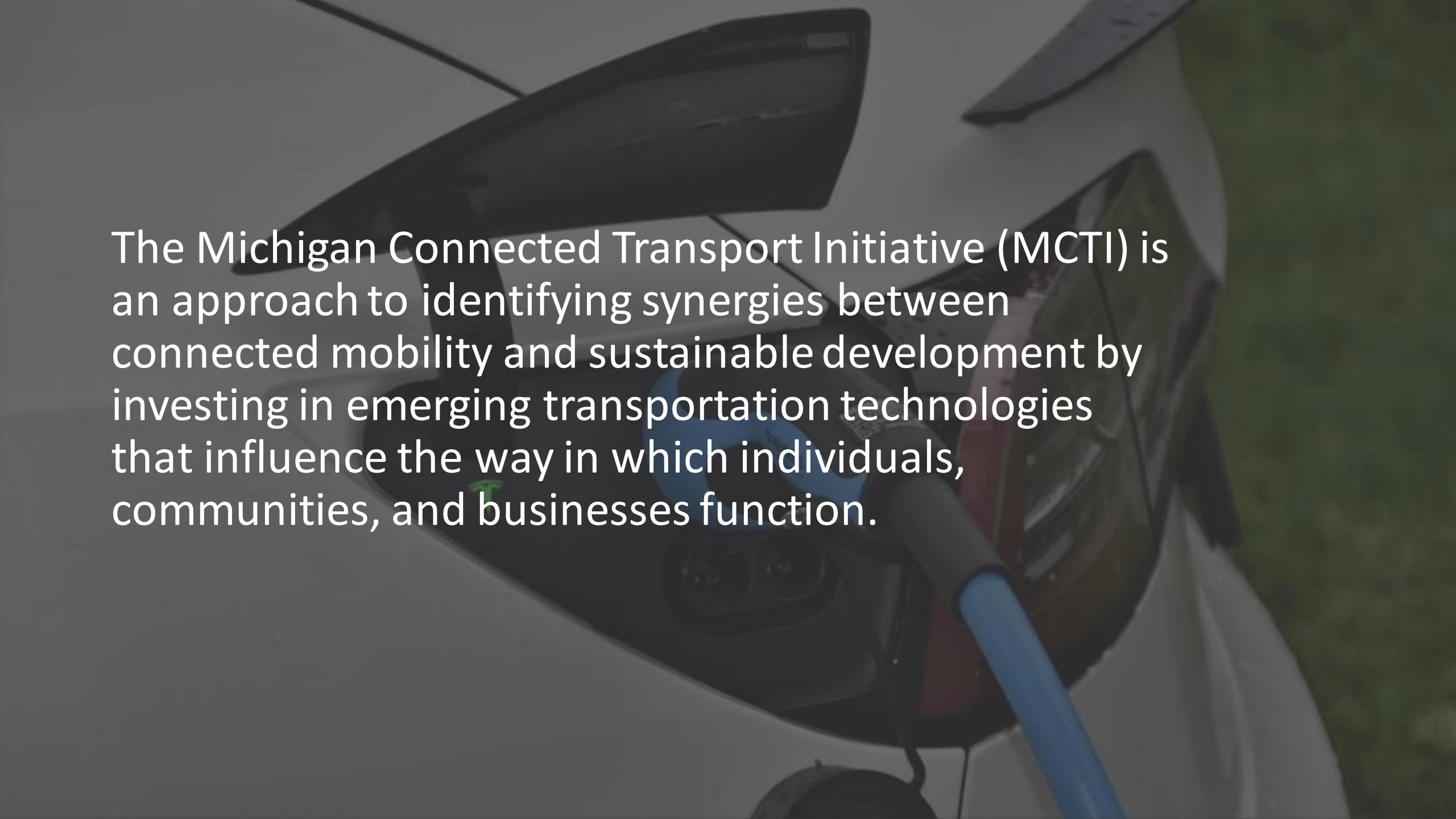




Michigan Connected Transport Initiative

Dana Dake, 2020 SLFG Project

A person wearing a white lab coat is using a blue tool to inspect the engine of a dark-colored car. The scene is dimly lit, with the person's hands and the tool being the primary focus. The background is dark and out of focus.

The Michigan Connected Transport Initiative (MCTI) is an approach to identifying synergies between connected mobility and sustainable development by investing in emerging transportation technologies that influence the way in which individuals, communities, and businesses function.

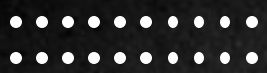


The goal of this project is to provide an overview of criteria used to identify, prioritize, and implement a community based connected transport initiative; while considering best practices and planning techniques that leverage Michigan's auto-based economy.



The report is based on several working group discussions with public and private sectors regarding a new approach to transportation planning that utilizes new technology and integrates goals from the **2030 Agenda for Sustainable Development**.





What is Michigan Connected Transport Initiative (MCTI)?

MCTI is a strategic and transferable framework that addresses the complexity of transport planning and policy development of smart and connected transportation systems.





MCTI Steps

1. Identify public and private community partners within MPO
2. Define current transportation systems within MPO geographic boundary and evaluate how these services support communities
3. Define the economic value of existing transportation services
4. Identify threats and weaknesses in current transportation services and infrastructure
5. Identify MCTI strategies that could improve transportation services, benefit the environment, and enhance community resilience
6. Prioritize MCTI strategies that provide maximum benefit
7. Create an implementation plan that incorporates MCTI strategies into a pilot project and improves transportation infrastructure
8. Evaluate local success and regional impacts from MCTI pilot project strategies
9. Review policy issues that inhibit and/or limit effective MCTI implementation

MCTI focuses on 5 (out of 17 total) SDGs that directly relate to transportation and mobility. Each SDG has associated facts, figures, and global targets.

MCTI is unique because it utilizes applicable SDG targets and associates them to smart and connected mobility to build a transferable framework known as MCTI strategies.





Methodology

Good Health and Well-being

This group focused on creating strategies that would reduce the number of deaths and injuries from road traffic accidents and reducing illnesses caused from transport related air pollution.



MCTI Good Health Strategies



Strategy 1: Reduce the number of deaths and injuries from road traffic accidents with CAV and ITS



Strategy 2: Decrease transport related pollution and greenhouse gas emissions with electric vehicles



Strategy 3: Decrease reliance on cars and emphasize walk ability

Affordable and Clean Energy

This group focused on clean and affordable energy options for electric vehicle (EV) transportation. Examples include local efforts to promote access to renewable energy options or establishing a regional network of EV charging stations.



MCTI Affordable Energy Strategies



Promote

Strategy 1: Promote investment in clean energy research and technology include renewable energy



Facilitate

Strategy 2: Facilitate access to clean energy by expanding EV charging station infrastructure



Enhance

Strategy 3: Enhance regional cooperation to facilitate access to clean energy and connected transportation

Work and Economic Growth

This group focused on local economic development for innovative transportation. Examples include job creation and retention for the creative class and working class and educational programs that assist in establishing career pathways.



MCTI Economic Strategies



Strategy 1: Achieve higher levels of economic productivity through diversification of existing automotive industry to include CAV, EV, and ITS innovation



Strategy 2: Support job creation and entrepreneurship in the CAV and ITS industry



Strategy 3: Creative and innovative employment strategies for connected transport

Industry, Innovation, and Infrastructure

This group focused on new and existing infrastructure that supports connected and autonomous vehicles. Examples include public and private investments in infrastructure and sustainable and resilient infrastructure that assist in connected mobility.



MCTI Industry Strategies



Strategy 1: Facilitate resilient and connected transportation infrastructure



Strategy 2: Enhance scientific research and innovation of sustainable deployment of CAV



Strategy 3: Upgrade artificial intelligence capabilities within the transportation industry

Sustainable Communities

This group focused on regional solutions that promote equal access to safe, affordable, and sustainable transportation. Examples include multi modal hubs, ride sharing initiatives, and strategies that minimize adverse environmental impacts from transportation.



MCTI Community Strategies



Strategy 1: Equitable distribution of benefits and impacts of a transportation network and improved quality of life for all residents and visitors



Strategy 2: Support positive economic, social, and environmental linkages between urban, peri-urban, and rural areas through ITS and CAV solutions



Strategy 3: Provide access to safe, affordable, and sustainable autonomous transit

Next Steps



Expand stakeholder outreach to include the public opinion



Quantitative analysis of recommendations and indicators to create a scoring methodology

Thank you