

An aerial photograph of a city grid is overlaid with a complex network of blue lines and circular patterns, suggesting data tracking or urban planning. The lines form concentric circles and radial paths, with some segments highlighted in a lighter blue. A small circular icon with a triangle inside is visible near the bottom center, with the text '05 TRACKING' below it. The overall color palette is dark blue and black, with white text.

Data is a Girl's (and city's) Best Friend

Urbanism Next

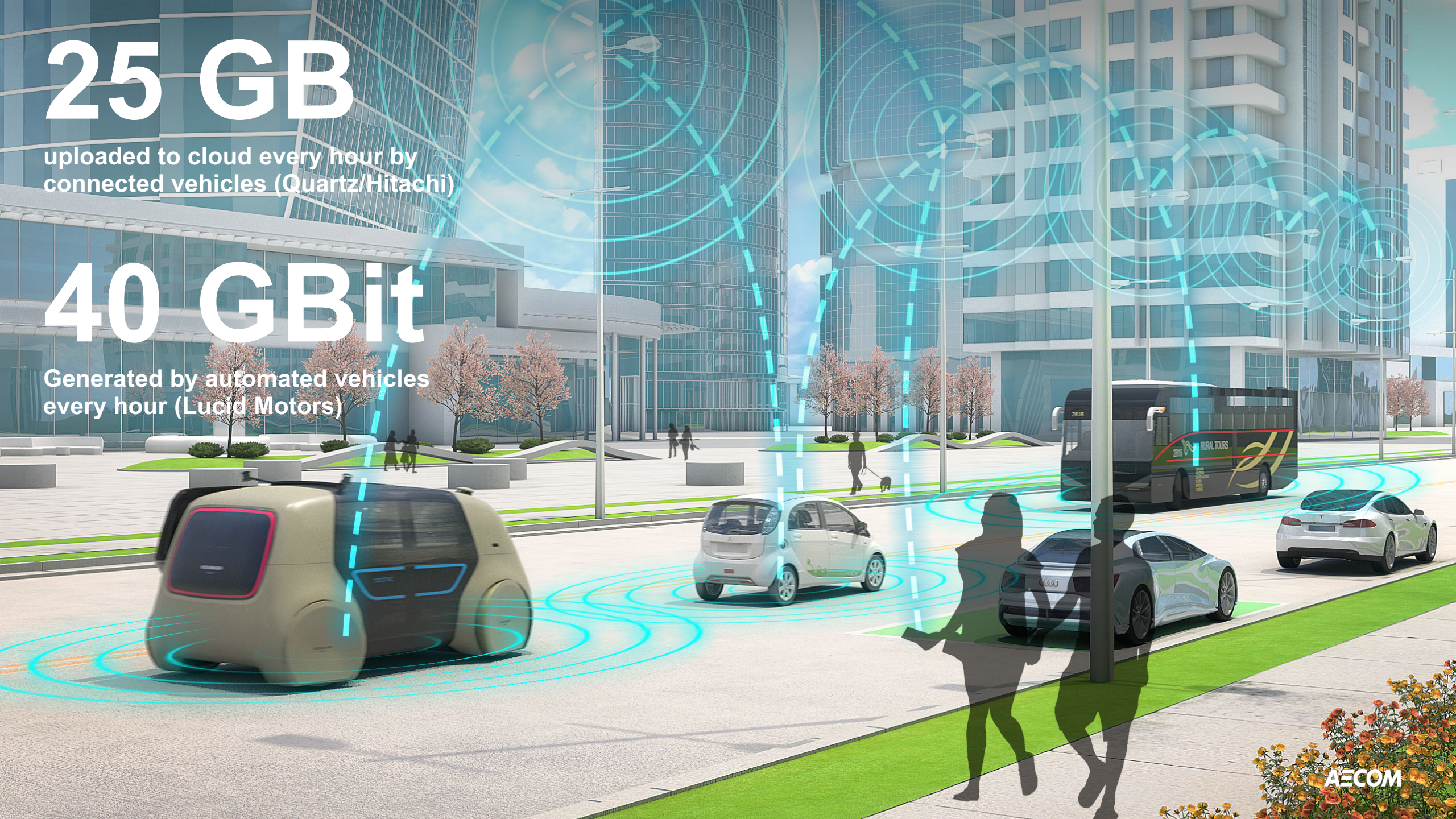
May 2019

25 GB

uploaded to cloud every hour by
connected vehicles (Quartz/Hitachi)

40 GBit

Generated by automated vehicles
every hour (Lucid Motors)



Internet of Things connections
expected to reach

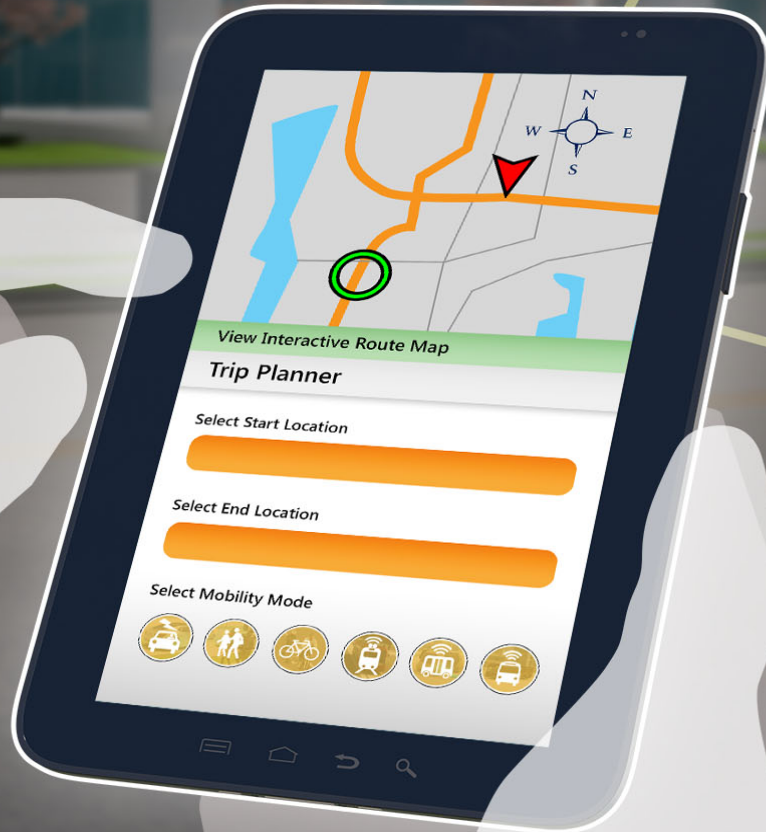
3.5B

in 2023

A compound annual growth rate of

30%

(Ericsson Mobility Report)



data is the new pavement

“The smart city, driven by digital technology, is poised to replace the typical networked city of the industrial era, whose success was built on its hard infrastructure, from roads to water supply and sanitation systems, not only as a technological optimum but also as a social and political project.”

- Antoine Picone, Smart Cities: A Spatialised Intelligence

An aerial view of a city grid with various data overlays in shades of blue. There are circular paths with numbers, a central point labeled '05 TRACKING', and various geometric shapes representing buildings and infrastructure. The overall aesthetic is technical and data-driven.

Data is a Girl's (and city's) Best Friend

Using Data for Smart Infrastructure and
Long-Range Scenario Planning

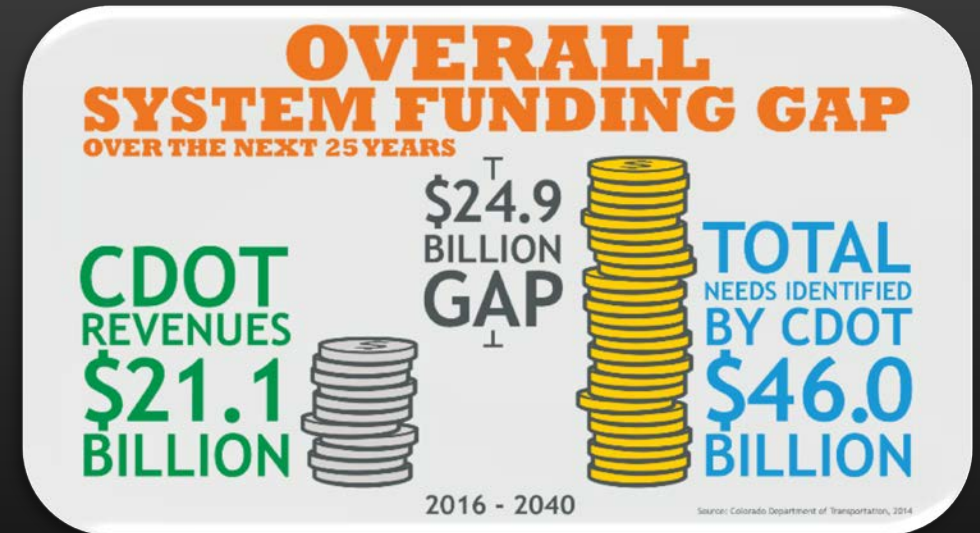
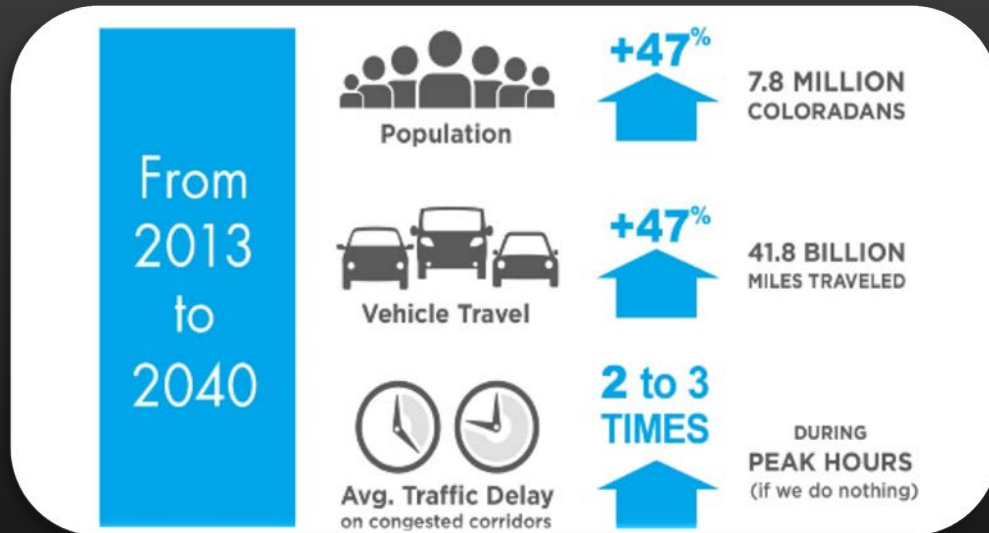
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Veronica Siranosian, Vice President, AECOM Ventures

May 2019

Colorado DOT Smart Mobility Plan



Smart Mobility Need



Vision and Goals



Smart Mobility Strategic Approaches

Safety

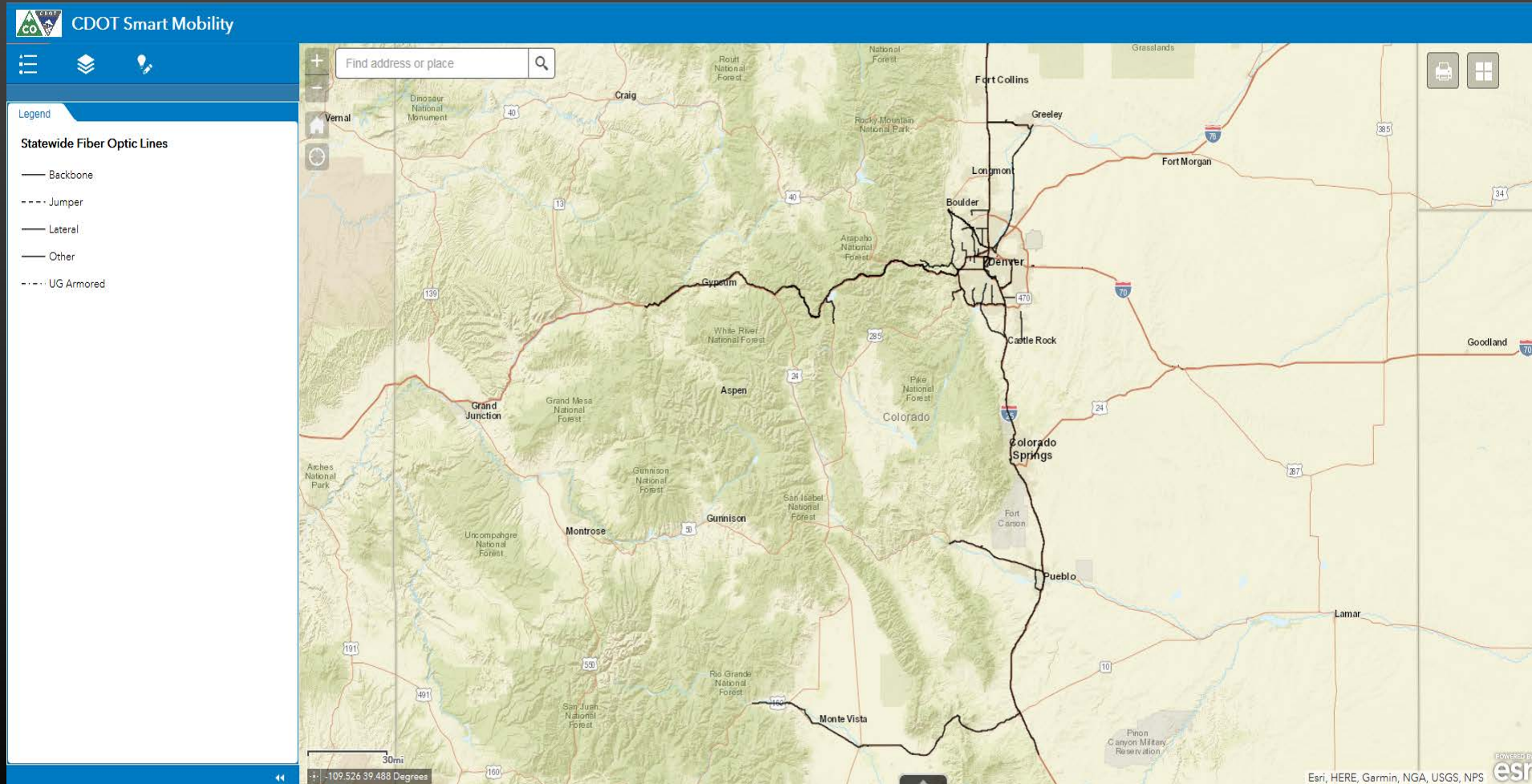
Mobility

Economic Vitality

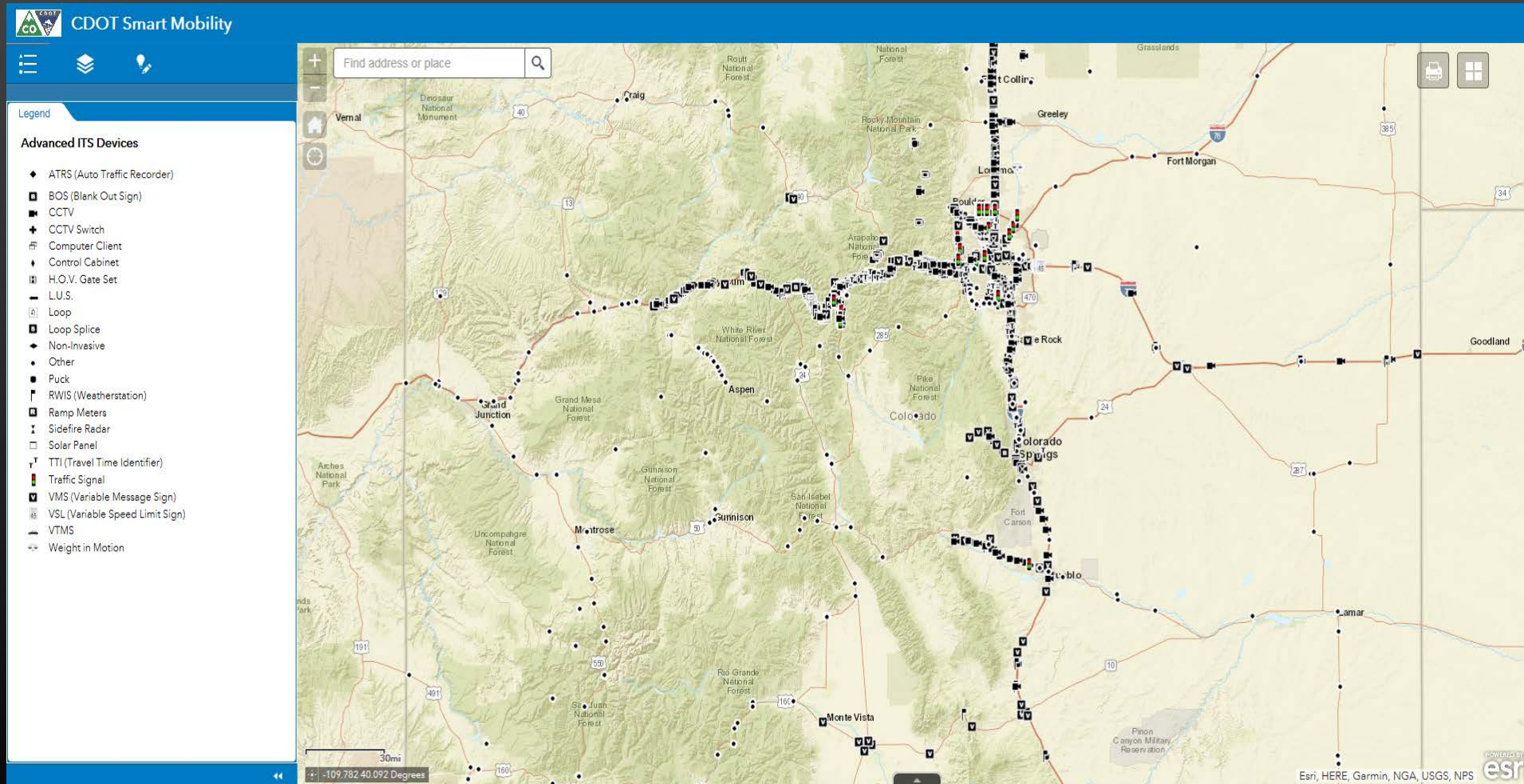
Maintaining the System



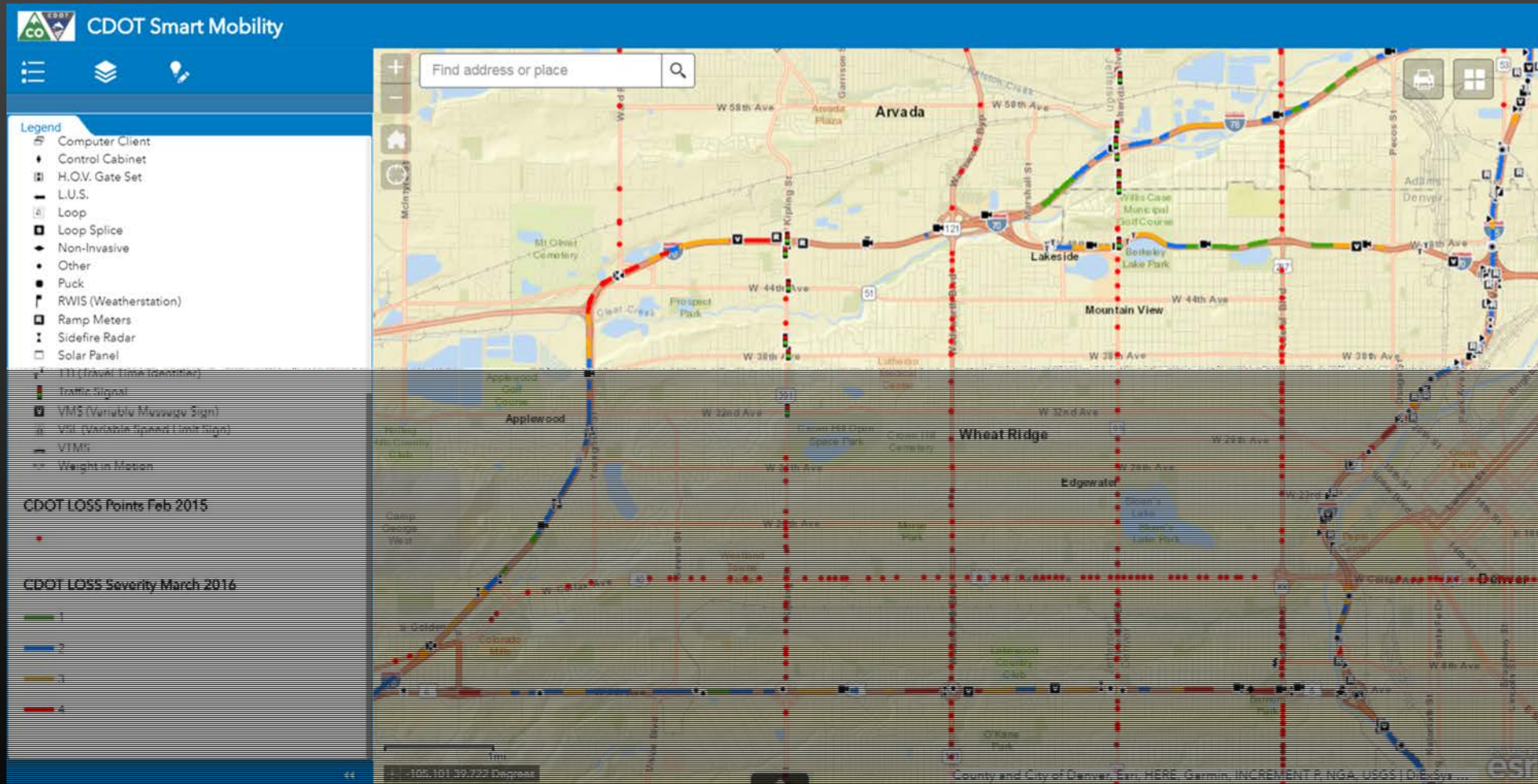
Data-Driven Technology Plan



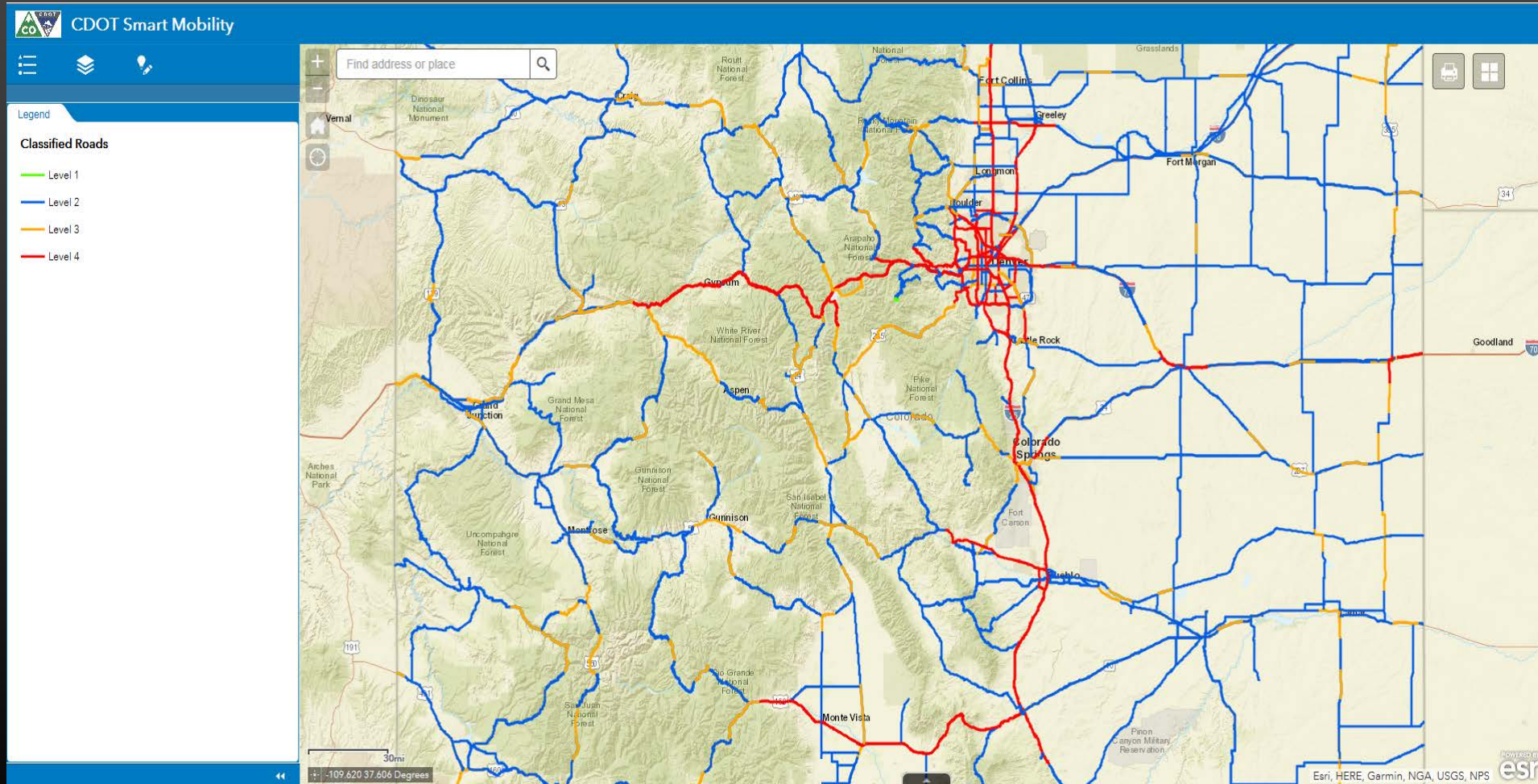
Data-Driven Technology Plan



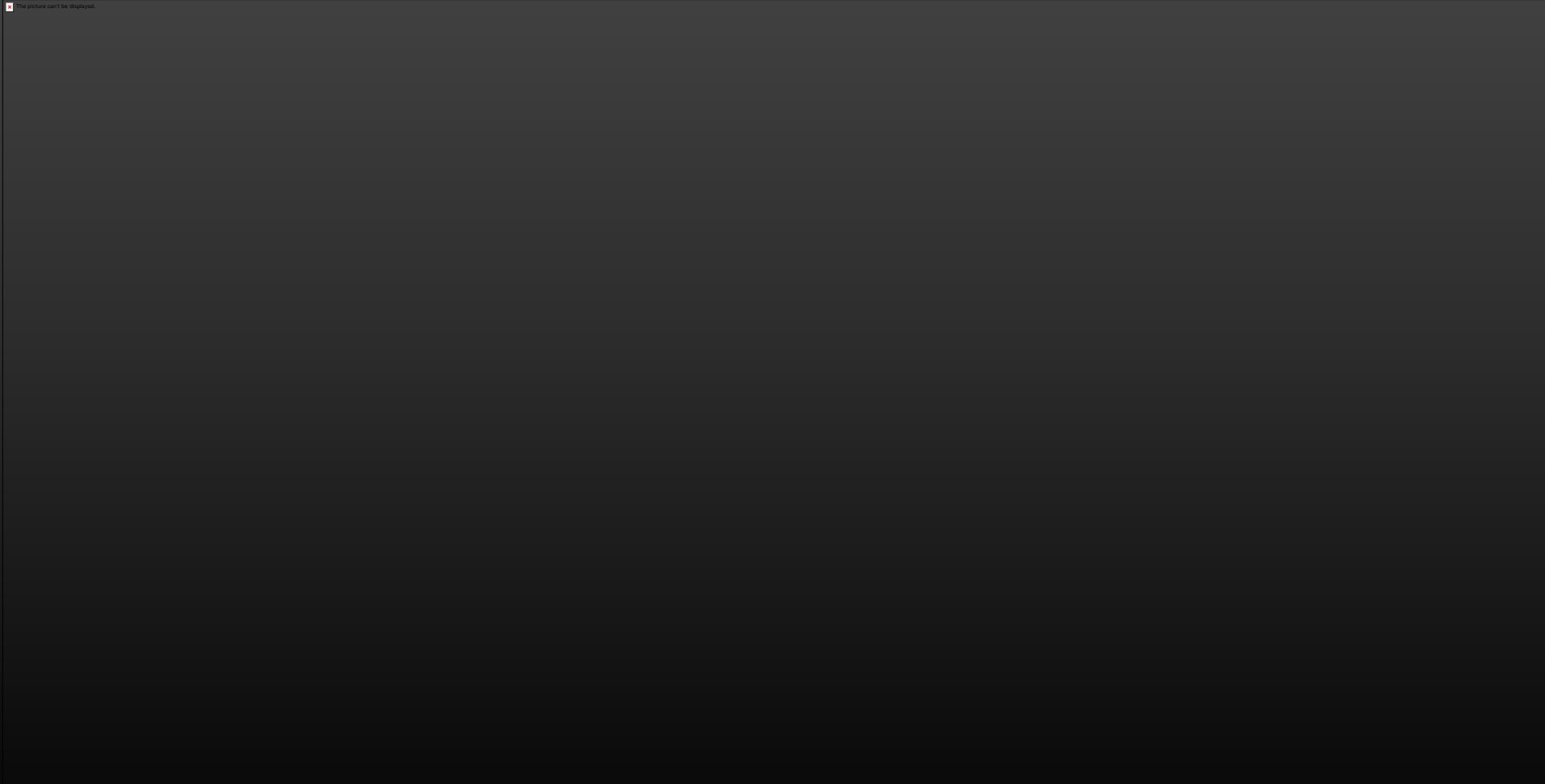
Data-Driven Technology Plan



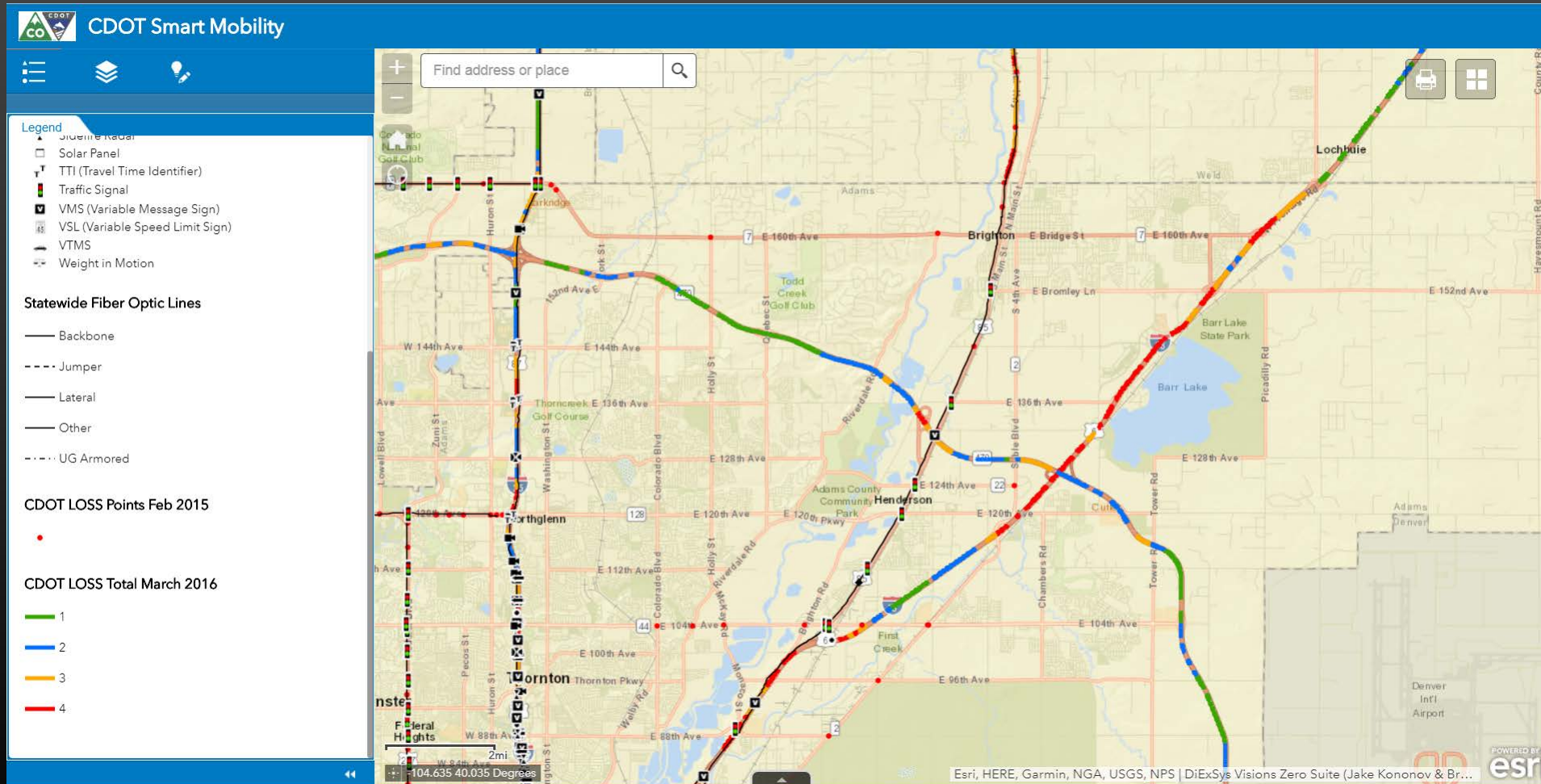
Data-Driven Technology Plan



Data-Driven Technology Plan



Data-Informed Infrastructure Decisions



Data-Informed Infrastructure Decisions

The screenshot displays the CDOT Smart Mobility application interface. At the top, the logo for CDOT Smart Mobility is visible. Below the logo is a search bar with the text "Find address or place". The main area is a map of the Denver area, showing major roads and landmarks like Barr Lake and Adams County Community Park. A route is highlighted on the map with a color gradient from green to red, indicating different levels of traffic or safety concerns. On the left side, there is a "Smart Editor" panel with a "Safety" tab. Below this tab is a "Tool" dropdown menu. A list of safety-related tools is displayed, including:

- Pedestrian Detectors (intersection)
- Dilemma-Zone Detection System
- Queue Warning
- Response, Emergency Staging and Communications, Uniform Management and Evacuation (R.E.S.C.U.M.E)
- Left Turn Assist (LTA)
- Red Light Violation Warning
- Curve Speed Warning
- Stop Sign Gap Assist
- Spot Weather Impact Warning
- Emergency Electronic Brake Lights (EEBL)
- Forward Collision Warning (FCW)
- Automatic Emergency Braking (AEB)
- Intersection Movement Assist (IMA)
- Blind Spot/Lane Change Warning (BSW/LCW)
- Do Not Pass Warning (DNPW)
- Vehicle Turning Right in Front of Bue Warning (MAW)
- Motorist Advisories and Warnings (MAW)
- Mobile Accessible Pedestrian Signal System (PED-SIG)
- Incident Scene Pre-Arrival Staging Guidance for Emergency Responders (RSP_STG)

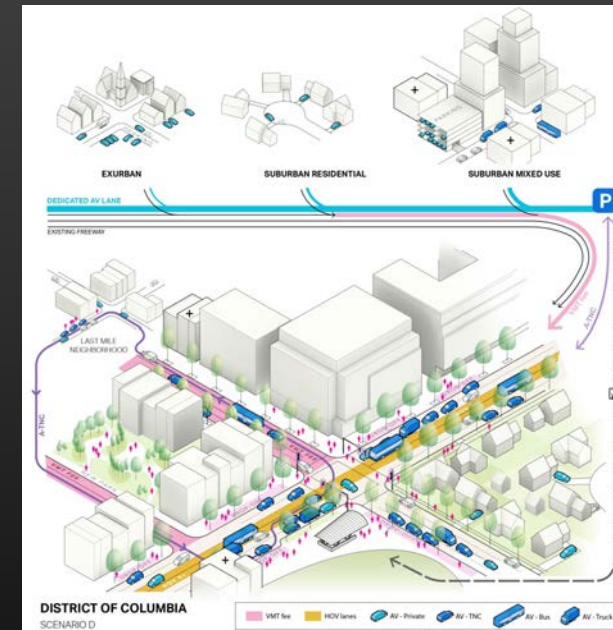
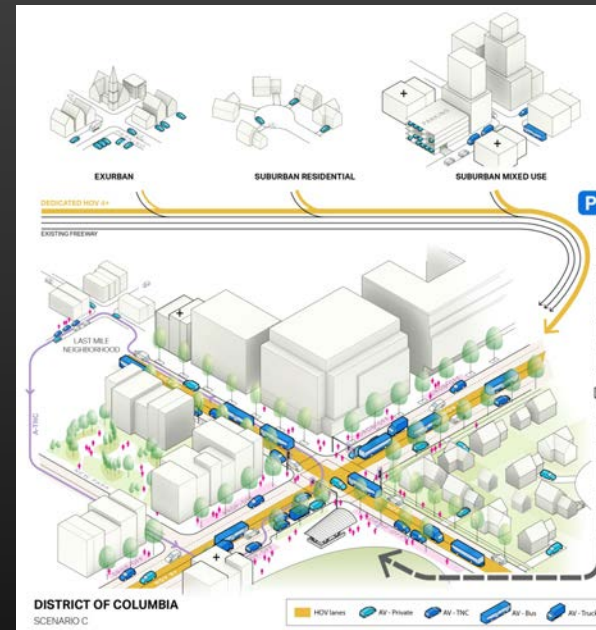
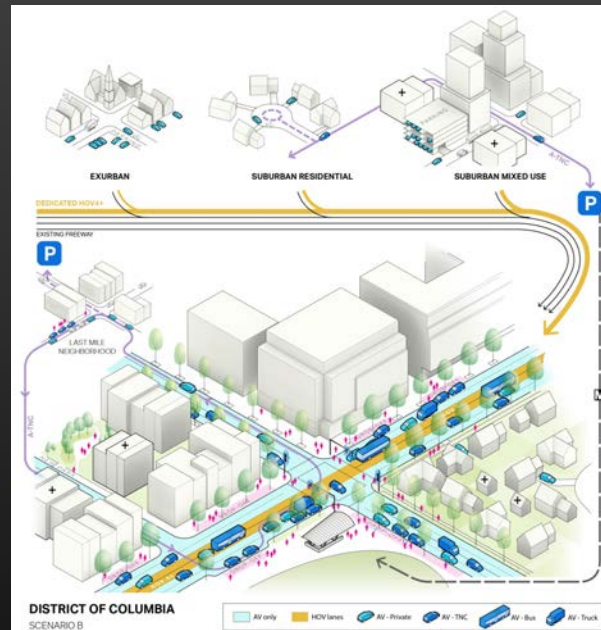
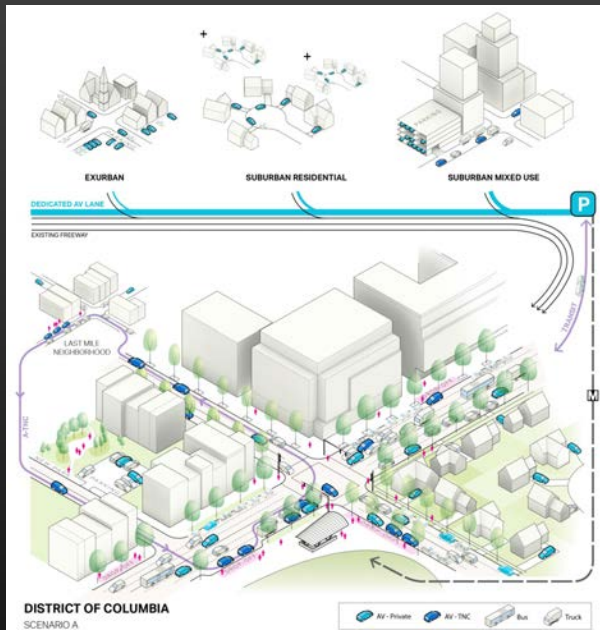
At the bottom of the map, there is a copyright notice: "Esri, HERE, Garmin, NGA, USGS, NPS | DiExSys Visions Zero Suite (Jake Kononov & Br...)" and the Esri logo.

Bottoms-Up Stakeholder Approach

Combined data-driven analysis and tool identification with bottoms-up stakeholder validation of needs and priorities



DC Autonomous Vehicle Study





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Service: **Mobilitics**



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AECOM

MOBILITICS™

NAVIGATING THE FUTURE OF MOBILITY

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