CHAPTER 07

DATA, COMMUNITY & THE CITY

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

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Data is the common thread underpinning emerging mobility services and technologies. Data is used to connect people to places and make informed decisions about where and how to serve communities. Mobility data is a new kind of infrastructure that San José manages, protects, and leverages for the public good.

BRIDGING THE GAP BETWEEN COMMUNITY NEEDS, EQUITY, AND EMERGING MOBILITY

The City is regulating and partnering with mobility providers in both its scooter, its bike share and semi-autonomous delivery robot programs and will use mobility data to help measure overall program outcomes with a focus on equity. Key areas of consideration for mobility data as it relates to equity include:

PAYMENT

Is there a cash option?

EDUCATION AND OUTREACH

Is there a requirement for education and outreach?

LANGUAGE

Are mobile apps and marketing materials offered in different languages?

WORKFORCE DEVELOPMENT

Can local-hire be required?

DEPLOYMENT

Is racial and economic equity core to deployment strategy?

FIRST/LAST MILE

Are emerging mobility services being used to increase access to transit-poor communities?

ADA ACCESSIBILITY

Do emerging mobility services provide options for people with disabilities? Do the services and/or vehicle impede mobility for people with disabilities?

ENFORCEMENT

Are there plans to increase enforcement around emerging mobility services and conflicts with other modes? Do these plans consider inclusivity, racial equity, and policing reform work?

DIGITAL DIVIDE

Does emerging mobility address the digital divide and some communities' lack of access to technology to utilize service?

A detailed explanation and analysis of data policy, mobility data specifications (MDS), and city practices surrounding data is provided in the appendix.

DEFINING POLICY LANDSCAPE

At the core, a city has three street stewardship functions which revolve around policy:

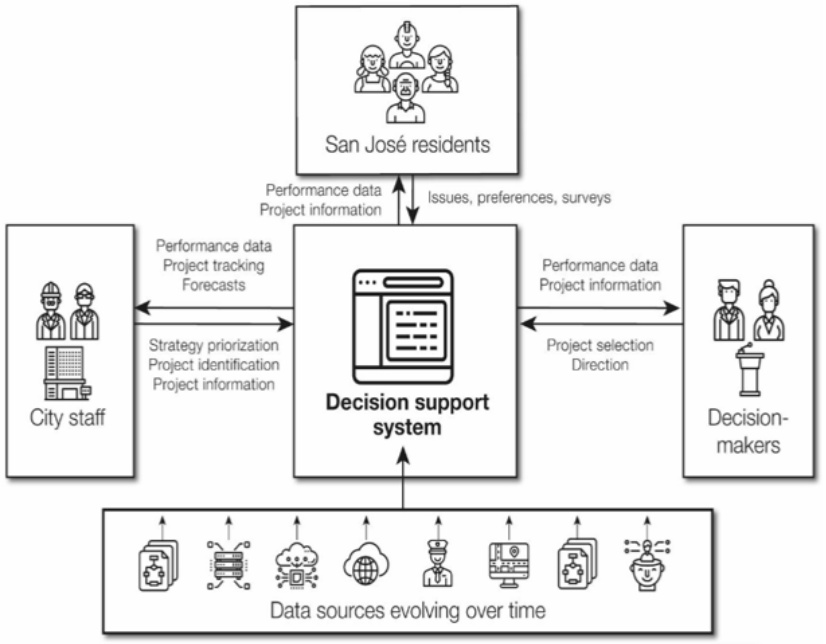
Plan and Express Policy: Determining what and where to invest and while factoring land use

Regulate and Enforce Policy: Ensuring all those operating in the public right-of-way align with policy-based outcomes

Operate and Achieve Policy: Orchestrate the public right-of-way to ensure safety and balance among different users

This stewardship is traditionally viewed as stewardship of the public realm. For the last century, beginning with the first stop sign, local governments have performed this stewardship using devices and instruments from the Manual on Uniform Traffic Control Devices (MUTCD). The MUTCD, issued by the Federal Highway Administration of the U.S. Department of Transportation, specifies standards for signs, road markings, and signals. Technology companies show the limitations of this approach. The fundamental issue is that tech companies operate in both the physical realm and the digital realm. This then leads to the idea that city stewardship is needed in the digital realm as it is present in the physical realm.

The digital public realm is a less fixed, more dynamic medium for the exchange of information with potential to address the dynamic demand for our limited physical environment. Cities have long been working to manage and regulate the public right-of-way, embedding information in the built environment for a very long time. Markers on buildings, pavement striping, curbside signs, and wayfinding, for example, serve as either a temporary or permanent record of public policies, rules, and regulations. These are guides to the expected use of our physical world. How the physical public right-of-way is used is a good model as we consider what a real digital public right-of-way might be like.



THE MOBILITY DATA SPECIFICATION & DIGITAL POLICY

The Mobility Data Specification (MDS) is a digital tool and notification system that allows cities and service providers to share information and express digital policies. MDS conveys information and regulations in a standard format, similar to a common language. The specification was originally developed by the Los Angeles Department of Transportation (LADOT) and is now governed by the Open Mobility Foundation (OMF), an open-source software foundation that is led by public agencies who manage the public right-of-way.

As private mobility providers increasingly rely upon location-based and vehicle status data[65] for decision making, digital policy transitions policy making from the analog realm of road signs and lights to the digital realm. The process for creating digital policy includes taking the written regulation, codifying it, digitally publishing it to providers, and allowing regulating authorities to gather and visualize information for planning, enforcement, and operations. For example, the City's written Shared Micro-Mobility Permit Administrative Regulations requires permitted micromobility companies to offer a minimum of 50 devices for public use. This written policy is codified and digitally communicated to permitted micromobility companies. In the case that a micromobility company offers less than 50 devices at any given time, that gets recorded digitally and is communicated back to the City for follow up. By regulating with digital policy rather than physical policy (like street signs), regulators can easily adjust to address the needs of the city and minimize the time, staffing, and resources needed for compliance, enforcement, and performance monitoring.

Source: Lloyd Alaban

65 Private mobility providers share data to cities on the number, location, status (e.g., vehicle is in use or vehicle is parked), and ride history of devices that are in use. This data allows private mobility providers to monitor its operations and respond to real-world changes the in real-time.

At its core, MDS is a set of APIs (Application Programming Interfaces) which are protocols that allow data to flow securely between cities and mobility providers. APIs are like channels of communication that allow different entities, in this case cities and mobility providers, to talk to each other through data. There are three primary APIs that allow local governments and mobility providers to communicate in different ways:

- PROVIDER API: The Provider API allows private mobility companies to report data to cities on the number, location, status, and ride history of devices in use.
- POLICY API: The Policy API allows cities to set rules for how and where different vehicles can operate, how many can operate, and other high-level policy initiatives.
- AGENCY API: The Agency API allows real-time updates and collaboration between city officials and providers when complex city transportation problems demand dynamic solutions.

Implementing MDS can help public agencies actively address and measure against their overarching agency and transportation goals, which may include challenges such as improving equity, reducing congestion, and increasing safety, among many others. In terms of the Emerging Mobility Action Plan goals, there are a number of areas that MDS can support. The goals related to access can be supported through MDS's ability to better monitor metrics like the availability of micromobility devices in traditionally underserved areas as well as providing tools to allow for equity-based pricing incentives and structures. Reliable information on vehicle locations can help keep sidewalks free of obstructions, improving safety and quality of life for those with limited mobility. From a sustainability perspective, micromobility vehicle data from MDS can help support analysis around needs for bike lanes, connection to transit hubs, and other behaviors that impact travel choices. Lastly, MDS can be a key tool helping to support the management of emerging forms of mobility, such as sidewalk delivery robots. Details regarding San José's approach to MDS and how it's used for existing programs and pilots can be found in the Appendix.