



What is Mobility as a Service?



MassDOT

INNOVATION
+ MOBILITY
Exchange

Schweiger Consulting LLC

Presentation Outline

What is MaaS?

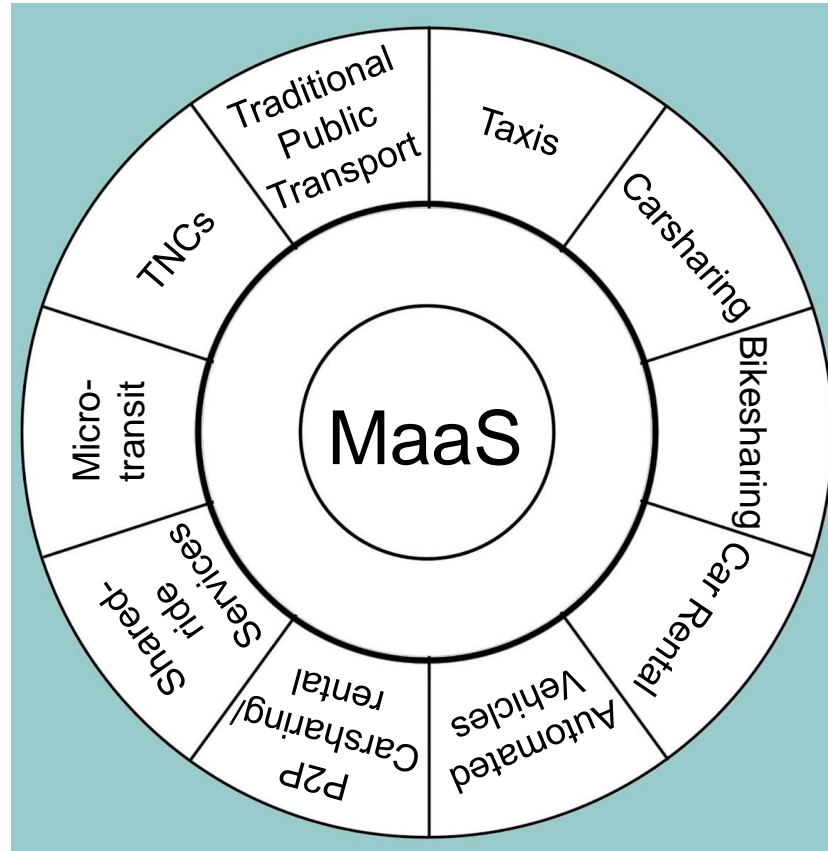
Four Pillars of MaaS

MaaS compared to Mobility Management

Progress of MaaS deployment in the US

Accessibility Challenges and Opportunities

Passenger Transportation Ecosystem



Mobility as a Service (MaaS)

- **Scalable door-to-door mobility** services without owning a car
- **Better level of service** than private car
- **Seamless and efficient flow** of information, goods and people
- **Open interfaces** to transport services
- Example: Personal mobility package for \$200/month:
 - Transportation from A to B according to service level agreement (SLA)
 - Including all transportation services
 - Including transport related services (health care, city logistics, home deliveries etc.)
 - Roaming in other cities and countries

MaaS (continued)

Multimodal and sustainable mobility services addressing customers' transport needs by **integrating planning and payment** on a one-stop-shop principle

Multimodal Transport and Shared Mobility

+

Multimodal Traveler Information

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Integrated Booking/Ticketing/Payment

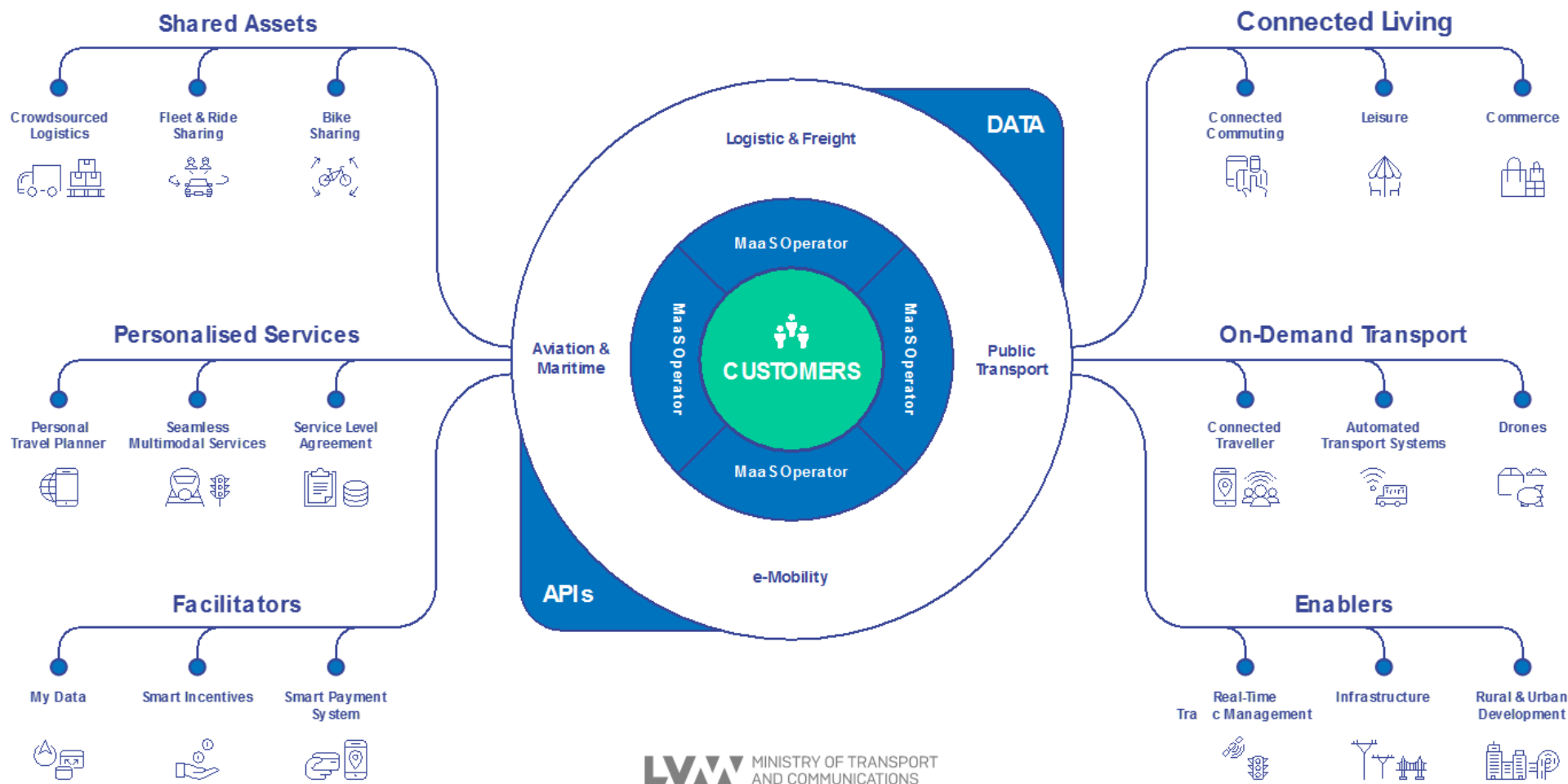
MOBILITY AS A SERVICE FRAMEWORK



MY MOBILITY SERVICES



MOBILITY AS A SERVICE



LVM MINISTRY OF TRANSPORT AND COMMUNICATIONS

Whim's Mobility Packages

	Whim To Go	Whim Urban	Whim Unlimited
Monthly payment	Free	49€	499€
Local public transport	Pay per ride	Unlimited Single Tickets	Unlimited Single Tickets
Taxi (5km radius)	Pay per ride	10€ per ride	Unlimited
Car	Pay per ride	49€ per day	Unlimited
City Bike	Coming spring 2018	Coming spring 2018	Coming spring 2018
Cancel anytime	✓	✓	✓
Add-ons Incl regional HSL ▾			
Add-on Car subscription	✓	✓	✓
Add-on HSL Regional	Pay per ride	-50€ per month	-50€ per month
Add-on HSL Regional 3	Pay per ride	-100€ per month	-100€ per month
	Read more	Read more	Read more

MaaS in Different Geographic Areas

Rural Areas

Objectives:

- Increase efficiency and utilization rate
- Maintain sufficient service level
- Improve accessibility

Based On:

- Demand-responsive transport, taxis, buses and connections to long-haul transport and carpooling
- Parcel deliveries, library services, and food and medicine distribution

Suburban Areas

Objectives:

- No need for a 2nd car
- First- /Last-mile accessibility

Based On:

- Park & ride services; on-demand transport; and other services connecting suburban to city transport services

Cities

Objectives:

- Reduce the use of private cars (congestion, parking)
- Reduce emissions

Based On:

- Existing public transport
- Extended with rental and shared cars and bikes

National and International

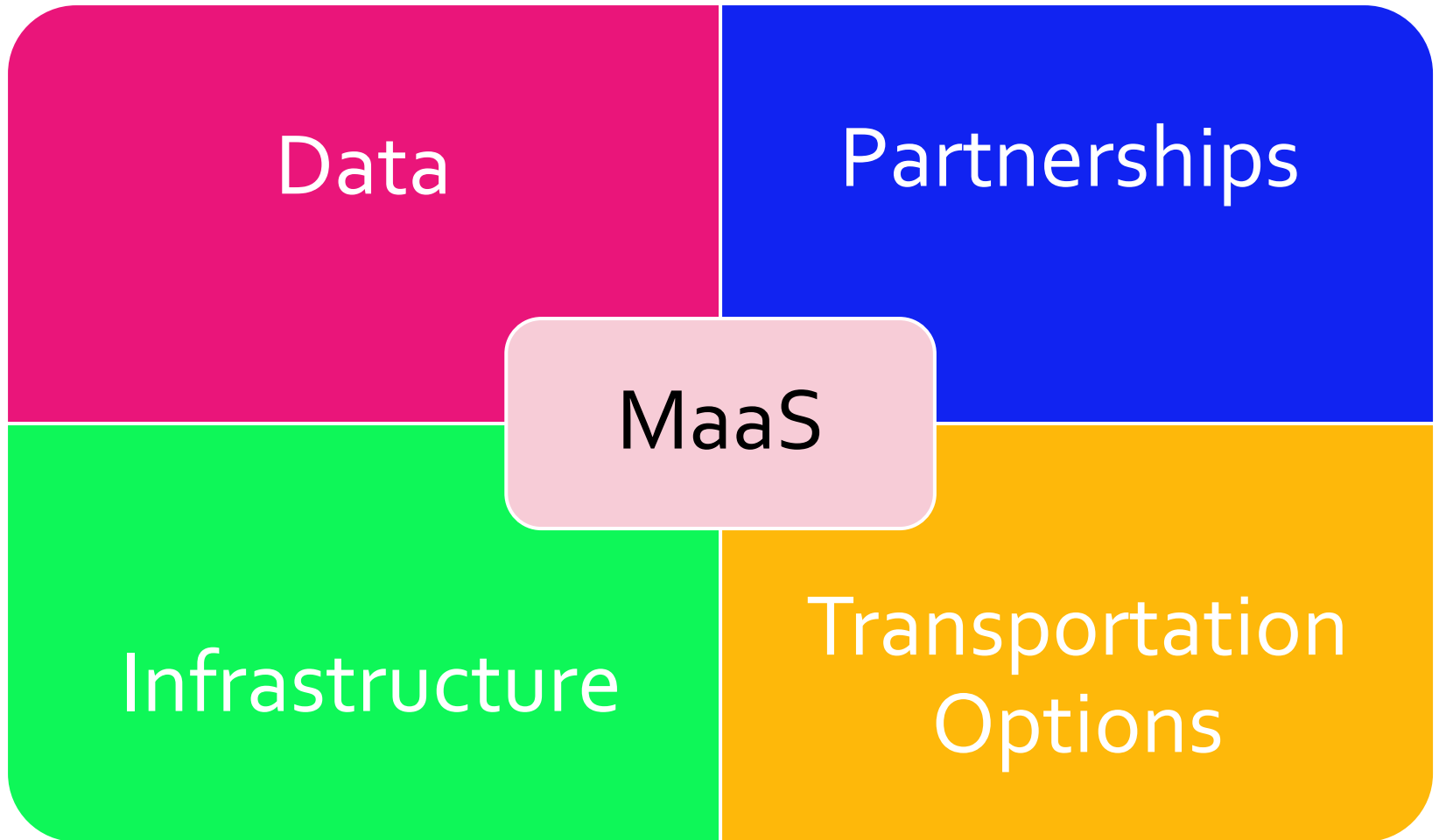
Objective:

- Offer easy all-in-one packages

Based On:

- Long-haul transport including air traffic
- Additional services: accommodation, event tickets, activities, etc.

Four Pillars of MaaS



MaaS Comparison to Mobility Management: Similarities

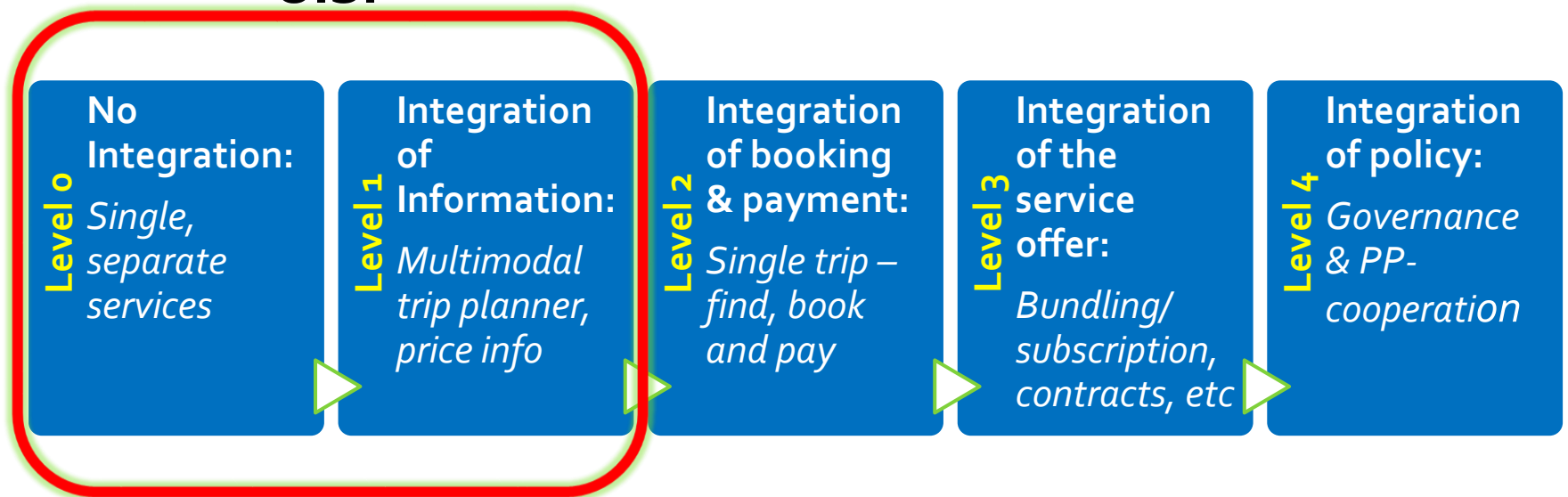
- Improves **livability** in community/region
- Emphasizes **travel needs** of individuals
- Emphasizes **entire trip**
- Offers **full range of travel options** to SOV
- Cultivates **partnerships** and multi-agency activities
- Offers **single point of access** to multiple modes
- Applies **advanced technologies**
- Improves **information available** about services

MaaS Comparison to Mobility Management: Differences

- MaaS:
 - Consumer purchases “**package**” of transportation services
 - Operated by 1 or more entities (public or private) responsible for negotiating relationships with transportation service providers
- Objectives:
 - Mobility management’s objectives more **focused on traveler with special needs**
 - MaaS objectives focused on **providing individual mobility with better level of service than that of SOV**

Progress of MaaS Deployment in the U.S.

U.S.



Source: Jana Sochor, Hans Arby and MariAnne Karlsson, "The topology of Mobility as a Service: A tool for understanding effects on business and society, user behavior, and technical requirements," Paper No. EU-SP1013, 2017 ITS World Congress, Montreal

Accessibility Challenges and Opportunities

MaaS must be usable by **everyone**, including **elderly, disabled or low-income individuals**

- Planning for aging (e.g., aging in place)
- Ensuring people can get to medical appointments or grocery store, and retain their independence
- Providing translators who can work with older adults to help them access new transportation choices
- Creating new access points
- Ensuring you can call from your desktop and not just from your smartphone

Accessibility Challenges and Opportunities (continued)

- Agencies transforming to tackle changing mobility needs:
 - Embrace **connected mobility** while bridging digital divide
 - Must continue to **guarantee access** for most vulnerable
 - Trip-planning kiosks at stations
 - Basic fare cards or tickets with QR codes
 - Consolidated call centers for users without phones
- Uber taking requests by SMS message and by phone

MaaS for Vulnerable Individuals

- Upstream project in UK
- Travel needs of individuals with dementia being identified
- Approach to defining user needs:
 - Use a Service Design approach - co-design
 - Listen to peoples' stories
 - Understand real user challenges, requirements and expectations
 - Create a strong value proposition
 - Create gains
 - Relieve pains
 - Design the service touchpoints
 - Design the full user experience

Tompkins County, NY

Vision by 2020: “Integration of existing systems: coordination among existing resources that creates a seamless and comprehensive system offering access to people wherever they are in the county and whatever their transportation needs are. It follows that this will lead to more efficient and effective use of existing resources.”

- Short term: Explore feasibility of MaaS
- Long term: Introduce MaaS concept and application to Tompkins County

Thank You!

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