Future mobility on different sides of the Atlantic Ocean

Bridging the gap between the US and Europe





Introduction

Axel Persson and Lennart Persson, Trivector

How to bridge the Silicon Valley mobility ecosystem with Europe?

• Elias Arnestrand – Nordic Innovation House in Silicon Valley.

This is how San Francisco and San José deal with shared mobility – experiences and good practices from the US West Coast

- Alex Demisch, San Francisco MTA
- Ramses Madou, San Jose DOT & Open Mobility Foundation

Understand the future first

We help our clients to create a sustainable future. We understand and form it together.





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May Webinar

SuSMo

Programme:

Monday 4th May

SCOOTERS IN SOFIA

give their experiences of the process.

🕓 11am GMT

Speakers from Sofia Municipality and Sofia scooter providers. Sofia was one of the first cities to implement regulation to their kick scooter schemes in this webinar those involved with the scheme will

Lead by Cleantech Bulgaria

Tuesday 12th May

CAR CLUBS – ELECTRIC AND ENGAGING

🕓 11am GMT

Lead by Cenex

Inclusive Car Clubs, introducing car clubs into low income neighbourhoods - Beth Morley - Cenex Partnership working for car clubs - Iain Macbeth Director of Electric Vehicle Strategy, Partnerships & Innovation (Europe) Enterprise

Environmental Impact of Car Clubs - Teresa Sanchis

Tuesday 19th May C 2pm GMT

FUTURE MOBILITY ON DIFFERENT SIDES OF THE ATLANTIC OCEAN - BRIDGING THE GAP BETWEEN THE US WEST COAST AND EUROPE

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How to bridge the Silicon Valley mobility ecosystem with Europe? - Elias Arnestrand - Head of the Future Mobility initiative at Nordic Innovation House in Silicon Valley

This is how San Francisco and San José deal with shared mobility experiences and good practices from the US West Coast

 Alex Demisch, Data Analytics & Strategy Manager @ San Francisco MTA Ramses Madou, Planning, Policy, and Sustainability @ San Jose DOT & Vice-Chair of the Board @ Open Mobility Foundation

June Webinar

SuSMo

Programme:

Wednesday 3 rd June © 11am GMT Lead by AESS	PRE-PROCUREMENT AND SHARE MOBILITY DEMAND ANALYSIS: A STUDY CASE OF BIKE SHARE AND CARGO BIKES MODELS Speaker Luigi Lazzari - Mobike
Tuesday 9 th June © 2pm GMT Lead by Cenex	YOU CANNOT MAKE BRICKS WITHOUT CLAY – DATA AND SHARED MOBILITY Telematics and shared mobility planning. How can vehicle data help us to plan sustainable shared mobility – Daniel Grist - Cenex Opening data, regulation and policy for shared mobility – David Philipson - Cenex Behavioural change campaign, measureing the hard to measure – Bella Mossa - Marco Amadori (SRM Bologna)
Tuesday 16 th June (§ 11am GMT Lead by Trivector	THIS IS HOW GOTHENBURG IS EXPANDING THE SHARED MOBILITY SCENE The road to the next bike share scheme in Gothenburg – Planning, procurement and integration with e-scoolers - Sara Boije af Gennds – Trivector Mojo – Campus MaaS and hub demonstrator, Business model and efficient procurement for a sustainable mobility Rasmus Sundberg - Trivector
Tuesday 23rd June (§ 11am GMT	WORKING IN A EUROPEAN COMMUNITY - SHARED MOBILITY PROJECTS Speaker to be confirmed
Tuesday 30th June (§ 11am GMT	HOW CAN CITIES EVALUATE THE IMPACTS OF SHARED MOBILITY? RESULTS FROM THE STATE-OF-THE-ART AND STATE-OF-THE-PRACTICE FROM CITIES AROUND THE WORLD
Lead by T U Delft	Natasa Roukouni - T U Delft and Dr. Ir. Gonçalo Homem de Almeida

Contact: Beth Morley, Cenex Tr beth.morley@cenex.co.uk

Lead by Trivector

https://www.cenex.co.uk/events/





Future Mobility



Why Silicon Valley and Mobility?

- The ongoing transformation trends in mobility
- The digital platforms
- The extensive ecosystem of traditional auto companies together with startups etc











Data sharing and shared mobility

Strategic area for cooperation: Datasharing for shared mobility

- How to share data between private operators and cities
- How to analyse/measure performance
- How to share regulations dynamically with private operators
- Best practices in the US regarding policy design for private shared fleets of scooters and bicycles?





Elias Arnestrand

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Managing Emerging Mobility

May 19, 2020 SuSMo Europe Webinar

A Little Perspective



Bay Area:

- Nine counties
- 6,900 square miles
- 7.68 million residents

San Francisco:

- 47.33 sq. miles
- 884,363 residents
- Second only to NYC in population density





Since 2010, San Francisco has seen:



Popu at on grow by 10 percent



Vehicle registration within San Francisco increase by 5 percent



Employment grow by 36 percent



Citywide bike trips increase by 44 percent



Transit ridership increase by 4 percent



Citywide walk trips increase by 62 percent



Vehicular traffic entering San Francisco grow by 3 percent



Private auto speeds decline by 27 percent



New Mobility Services are Growing



Transit First: It's How We Roll



1912: San Francisco Municipal Railway became the first publicly-owned and operated transit system in the United States

1973: Transit First Policy ..."travel by public transit, by bicycle and on foot must be an attractive alternative to travel by private automobile."

Vision Zero: Even One is Too Many



2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019



SF Climate Action Strategy: Keeping it Green



SAN FRANCISCO CLIMATE ACTION



2030 Goal: 80% of All Trips by Sustainable Modes

Guiding Principles for Emerging Mobility



SAFETY











COLLABORATION



EQUITABLE ACCESS



LABOR

a

CONGESTION

FINANCIAL IMPACT



ACCOUNTABILITY



DISABLED ACCESS

Regulated Mobility Programs

- Taxis
- On-Street Vehicle Share
- Commuter Shuttle
- Shared Electric Mopeds
- Private Transit Vehicles
- Bikeshare
- Powered Scooter Share







Mobility Permit Harmonization

- 1. Require all emerging mobility to obtain authorization
 - Shift from reactive to proactive approach
 - Allow innovation through a clear path
 - Proof of Concept Authorization (POCA)

2. Unify & streamline all permits

- Standardize processes and tools to administer, monitor, and enforce
- Coordinate data reporting to understand impacts on transport network
- Efficient use of staff resources



Data Harmonization

- Previously, data collection has been focused on the needs of each program
- New approach is to use a consistent set of metrics framed by the Guiding Principles



From Principles to Metrics - Dockless Mobility Example

Guiding Principle	Issue	Ideal Outcome	Metric
SAFETY	Disobeying local traffic and safety regulations, and increased risk of collisions	Safe operations in the right-of way and obeying traffic regulations with zero collisions	Number of collisions per 100,000 miles
TRANSIT	Service competes with public transit	Service supports transit and the use of sustainable modes	Mode shift from non• sustainable to sustainable modes
ACCOUNTABILITY	Scooters block public right-of-way	The right amount of scooters are deployed across the city	Count and distribution of scooters at the beginning of each day



Meeting Data Needs for Dockless Mobility

Monthly Report

User Survey

- Data Feed
 - Mobility Data Specification Trips Status Changes



Question #2: Think about your most recent trip on _ [insert service name] If [insert service name] was not available, what mode, of transportation would, you have used?



Operating Dockless Mobility Programs with Data

SFMTA collects data from dockless bikeshare and scooters to administer programs, regulate permittees, and inform better planning

• Device location and status information

Track total devices on the street to ensure compliance with cap Ensure minimum availability of devices met by neighborhood



% Service Coverage by Neigborhood Provider(s): Jump, Lyft, Scoot Vehicle Type(s): bicycle, scooter Propulsion Type(s): All



Operating Dockless Mobility Programs with Data

SFMTA collects data from dockless bikeshare and scooters to administer programs, regulate permittees, and inform better planning

Trip start/end points and routing

Identify streets in need of protected bike lanes and bike parking Understand number of trips

by mode/provider





Average Weekday Trips for New Mobility



Setting the Stage for Data Sharing in the Future







Thank you

Alex Demisch

Data Analytics & Strategy Manager, Sustainable Streets Division alex.demisch@sfmta.com



The Open Mobility Foundation & San Jose's Emerging Mobility Approach





A CHANGING TRANSPORTATION WORLD





Source: Lyft S-1 filing

84 Million Trips on Shared Micromobility in 2018



Source: NACTO

WHAT'S COMING?







PUBLIC SPACE FOR PUBLIC GOOD

SAFE EQUITABLE ACCESSIBLE SUSTAINABLE San Jose's Emerging Mobility Approach





TRADITIONAL MANAGEMENT INFRASTRUCTURE









THE OPEN MOBILITY FOUNDATION

- Digital infrastructure to help cities manage public space for the public good
- Data standards and open source software
- Public/private collaboration that encourages responsible growth of new mobility services
- Cross-sector relationships and a shared vision for mobility



A NON-PROFIT, OPEN SOURCE FOUNDATION

Public/private partnership to create **common standards** for digital governance that transform the way cities manage transportation in the modern era and support a business ecosystem.



OUR MEMBERS



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L/CULA METROLAB









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WAYMO



BLUESYSTEMS TECHNOLOGY SMART MOBILITY













PORTLAND.OR

MOBILITY DATA SPECIFICATION

AN API CONNECTING MOBILITY COMPANIES WITH LOCAL GOVERNMENTS

- >90 cities around the world
- Marketplace of tools for cities built on MDS
- Accelerates launch of mobility services



Mobility Data Specification

The Mobility Data Spe cification (MDS), a project of the Ope n Mobility Foundation (OMF), is a set of Applica tion Programming Interfaces (APIs) focused on dockless e-scooters, bicycles and carsh are. Inspired by projects like GTFS and GBFS, the goals of MDS are to provide a standardized way for municipalities or other regulatory agencies to ingest, compare and analyze data from mobility service providers, and to give municipalities the ability to express regulation in machine-readable formats.

HOW WE WORK

- Led by cities w/ strong private sector governance participation
- Working groups and GitHub repositories open-to-all
- Technology built through public and private sector collaboration
- Open-source licensing



OUR PRINCIPLES

OPENNESS

5

- **COMPETITION** Competitive marketplaces for mobility services and software tools
- **2 COMPATIBILITY** Ecosystem of technologies, services, and vendors built around common standards
- **3 MODULARITY** Flexibility for cities and predictable, scalable interfaces for mobility companies
- **4 PRIVACY** Protect individual privacy while support digital mobility and data-driven management

Transparent, participatory development process and open-source licensing

MOBILITY DATA SPECIFICATION

DATA FOR INFRASTRUCTURE PLANNING



TECHNOLOGY AND POLICY BUILT TOGETHER

	2019 SESSION
	INTRODUCED
	101042215
1	HOUSE BILL NO 2232
2	Offered January 0, 2010
3	Preficted January 9, 2019
4	A BILL to append and repeated \$\$ 462-100 462-849 462-903 462-904 462-905
5	46 2-908 1 46 2-1015 46 2-1041 and 46 2-1081 of the Code of Virginia and to any ul the Code of
6	Viro inia hy addino in Chanter 13 of Title 46.2 a section numbered 46.2-1315 relative to no torized
7	skateboar & or foots conters, open tion, local a thority
8	skaleboar a or joor-scoolers, open non, locar a anomy.
Ŭ	Patrons-Bagby and Sickles
9	
10	Referred to Committee on Transportation
II.	
12	Be it enacted by the General Assembly of Virginia:
13	1. That \$\$ 46.2-100, 46.2-800, 46.2-849, 46.2-903, 46.2-904, 462-905, 46.2-908.1, 46.2-1015,
14	46.2-1041, and 46.2-1081 of the Code of Virginia are amended and reenacted and that the Code of
15	Virginia is amended by adding in Chapter 13 of Title 46.2 a section numbered 46.2-1315 as
16	follows:
17	\$46.2-100. Definitions.
18	As used in this title, unless the context requires a different meaning:
19	All-terrain vehicle means a motor vehicle having three or more wheels that is powered by a motor
20	and is manufactured for off-highway use. "All-terrain vehicle" does not include four-wheeled vehicles

599 1. Require licensees to provide to the locality anonymized fleet and ride activity data for all trips starting or ending within the jurisdiction of the locality on any vehicle provided by the licensee or any 600 company controlled by, controlling, or under common control with the licensee, provided that (i) such 601 data is provided via an application programming interface complying with the format requirements of 602 603 the Mobility DatSapecification and subject to the licensee's license agreement for such interface; (ii) 604 any such data provided shall be treated as trade secret and proprietary business information, shall not 605 be shared to third parties without the licensee's consent, and shall not be treated as owned by the local 606 authority: and (iii) disaggregated ride history data containing GPS location traces of rides taken by users shall be considered personally identifiable information and shall under no circumstances be 607

Bicycle lane" means that portion of a roadway designated by signs and/or pavement markings for
"Bicycle lane" means that portion of a roadway designated by signs and/or pavement markings for
the preferential use of bicycles, electric power-assisted bicycles, motorized skateboards or foot-scooters,
and mopeds.
"Business district" means the territory contiguous to a highway where 75 percent or more of the
property contiguous to a highway, on either side of the highway, for a distance of 300 feet or more
along the highway, is occupied by land and buildings actually in use for business purposes.
"Camping trailer" means every vehicle that has collapsible sides and contains sleeping quarters but
may or may not contain bathing and cooking facilities and is designed to be drawn by a motor vehicle.
"Cancel" or "cancellation" means that the document or privilege cancelled has been annulled or
"rlin3tatdhee3use.af.comeCTTOTdefectTinalioihilithuthte.cancellation1s ithoutnridice.and"

DYNAMIC, DATA-DRIVEN POLICYMAKING

3.3.1 Dynamic Cap Adjustment Process

Operators interested in increasing their device cap must submit a request to the City with recent and relevant supporting data that demonstrates fleet utilization levels that meet or exceed the MUR. Data from the first 30 days of the pilot program should not be used in a request for adjustment. Utilization is calculated by dividing the sum of total daily rides within the jurisdiction over a one week period by the number of total devices available daily during the same timeframe. The highest and lowest outliers may be removed from the calculation.

PBOT News Release: Two e-scooter companies qualify for modest fleet expansion

Bird qualifies for 525 e-scooters, expected to deploy today

(Aug. 15, 2019) The Portland Bureau of Transportation has approved a modest expansion of the number of e-scooters in the city by two companies: Bolt and Spin. The companies qualified for the

"DIGITAL NATIVE" REGULATIONS



MEASURING OPERATOR COMPLIANCE



Pitchfork Festival Weekend

- Pitchfork Festival Geofence
 - 1 /4 Mile Buffer
- Escooter Trip Ends

WHAT'S NEXT?

RIDE HAIL AND ROBOTAXIS



DIGITIZING CURB MANAGEMENT



URBAN FREIGHT AND LOGISTICS



THANK YOU A CITYOF SANJOSE CAPITAL OF SILICON VALLEY

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Executive Director Jascha Franklin-Hodge

jascha@openmobilityfoundation.org



If you wish to listen to the recording please contact us.