Paradigm shifts in the governance of urban mobility in Île-de-France can the study of vehicle-sharing services help to identify larger trends ?

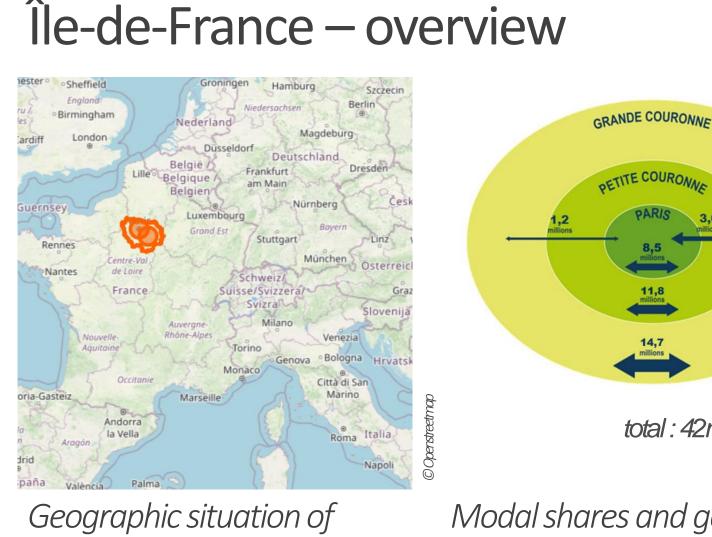
Timothée Mangeart, LVMT

UGI commission on governance Budapest, September 6, 2023







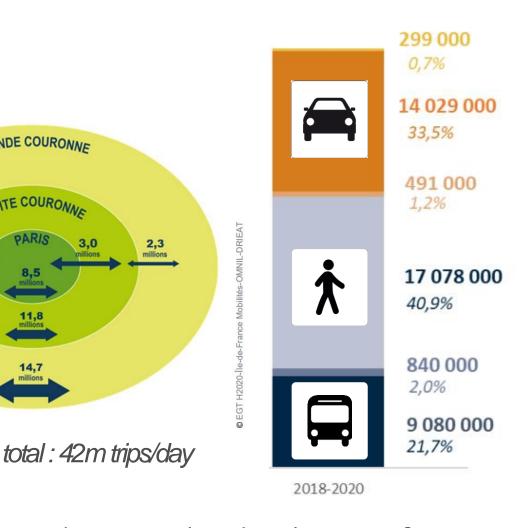


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Île-de-France

Modal shares and geographic distribution of trips in Île-de-France (Omnil, 2020)

PETITE COURONNE





Mobility is organized by « modes »

- Technical network of mobility (transport networks) :
- <u>Infrastructure</u>: the physical part of the TNM, including its maintenance;
- <u>Infostructure</u>: the management of the network and its use;
- <u>Service</u>: the vehicle and the service accessed by a passenger;

(Sajous 2020; Dupuy 1991)



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Mobility is organized by « mode »

	Public transport	Automobility
INFRASTRUCTURE	Rail & road, stations, depots	Road, parkings, gas stations
INFOSTRUCTURE	Timetable management	Signs, tolls, parking meters
SERVICE	Access to lines (trains, buses) with a ticket	Access to vehicle with personal keys







Mobility is organized by « mode »

	Public transport	Automobility
INFRASTRUCTURE	TA and public-owned infrastructure managers	Local, regional and national governements
INFOSTRUCTURE	Public service delegations between TA and TO	Police
SERVICE	Through TA or TO	Individually owned vehicle
	Laboratoire Ville Mobilité Transport	TA : transport authority; TO : transport operators

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VSS and the governance of mobility: the smart mobility paradigm

- 5 key components of smart mobility (Docherty et al., 2018) :
- Mobility-as-a-Service (MaaS)
- Data (real-time, crowdsourced, user-centered, contextual)
- Connected vehicles and infrastructures (IoT)
- Electrification and smart grid
- Automation

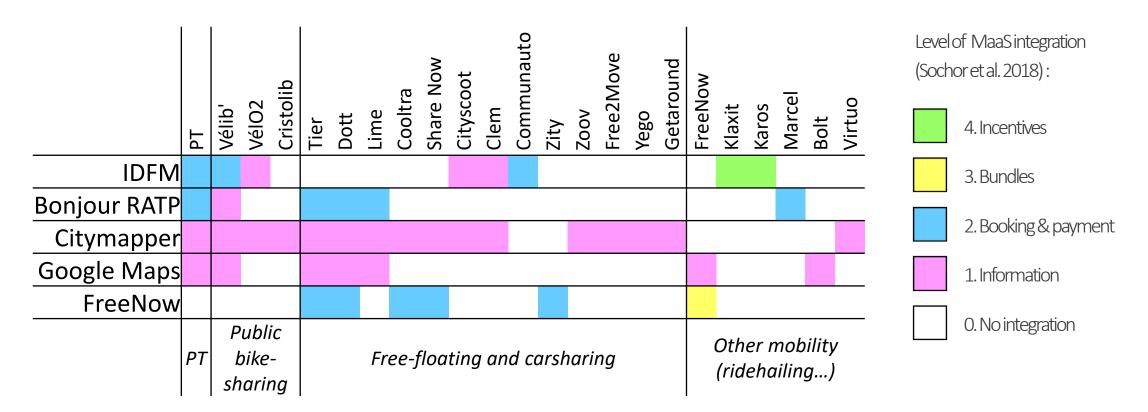
> Governance challenge : what should be the State regulatory posture ?



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Smart mobility in IDF : the example of MaaS



Mobility services presence on selected mobility platforms in Île-de-France, by "modes" (source : author)







Vehicle-sharing services (VSS) : a definition

Vehicle-sharing service (VSS) =

(1) user-driver

- + (2) driver not paid
- + (3) short-term
- + (4) on-demand



Bike-sharing services (BSS)



Carsharing services (CSS)



Scooter sharing services (SSS)



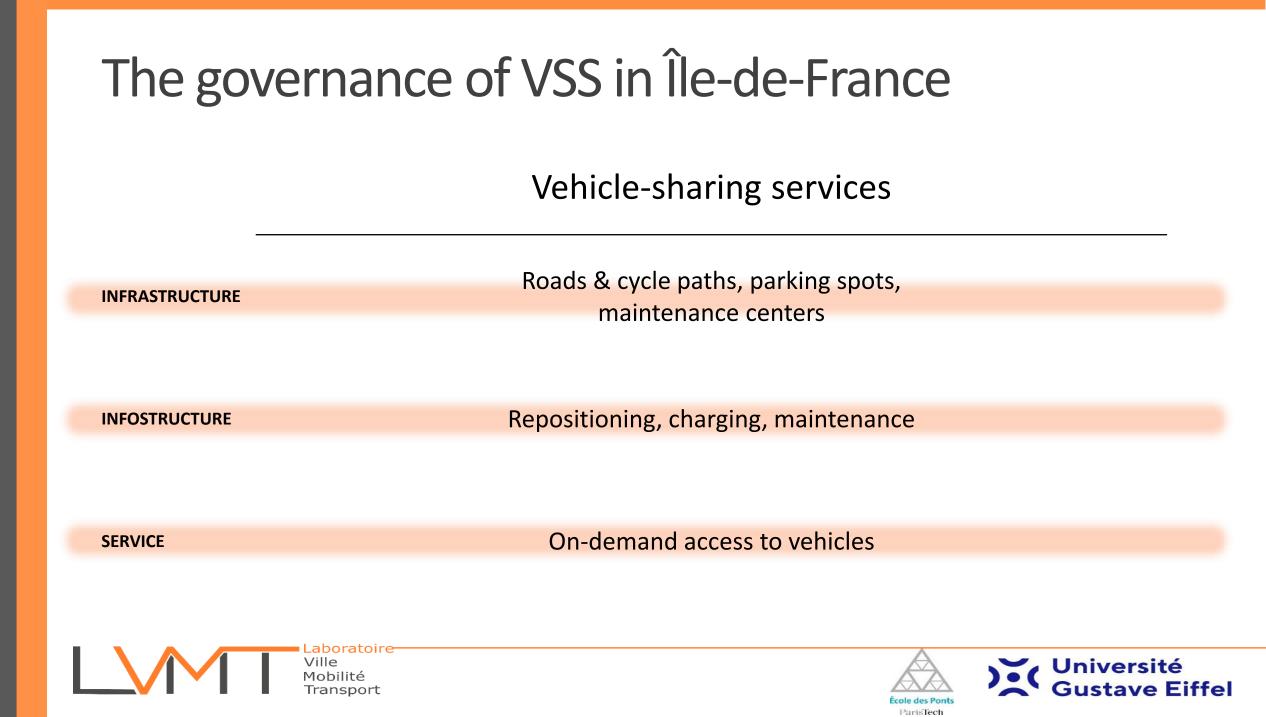
Moped sharing services (MSS)

(Boutueil, Nemett, et Quillerier 2022; Shaheen et al. 2015; Gilibert et Ribas 2019)



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The governance of VSS in Île-de-France

Vélib' (2007-2032) Autolib' (2011-2018)

INFRASTRUCTURE

Public service delegations between municipalities and VSO

INFOSTRUCTURE

Public service delegations between municipalities and VSO

SERVICE

Through TA or VSO

Laboratoire Ville Mobilité Transport TA : transport authority; VSO : vehicle-sharing operators



The governance of VSS in Île-de-France

	Vélib' (2007-2032) Autolib' (2011-2018)	Free-floating and carsharing services (2016)
INFRASTRUCTURE	Public service delegations between municipalities and VSO	Municipalities
INFOSTRUCTURE	Public service delegations between municipalities and VSO	Vehicle sharing operators (VSO)
SERVICE	Through TA or VSO	Vehicle sharing operators (VSO)
	Laboratoire Ville Mobilité Transport	TA : transport authority; VSO : vehicle-sharing operators TA : transport authority; VSO : vehicle-sharing operators Image: Comparison of the state of the

École des Ponts ParisTech

Free-floating as governance paradigm shift among vehicle-sharing service

 (Governance) paradigm shift: a change of (governance) goals, and not only a change of governance tools or of their use (Hall 1993)

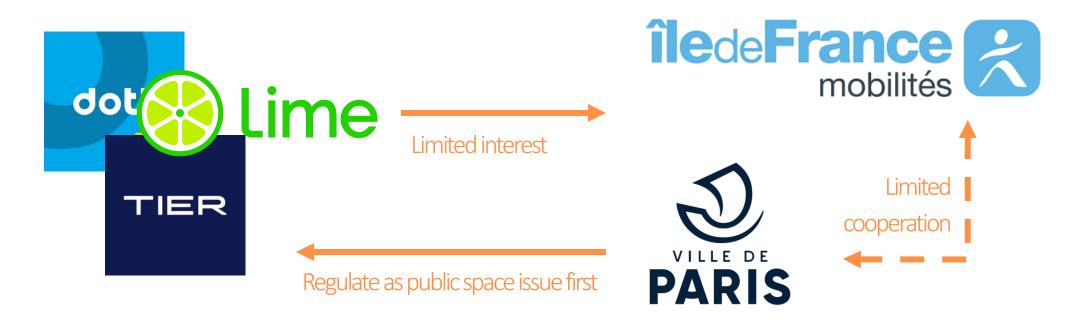
	Vélib' and Autolib'	Free-floating
Private actors	Competition for the market	Competition for the market and on the market
Local governements	« faire faire » / make do	« faire avec » / make with (Baraud-Serfaty, 2020)



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Local geopolitics of free-floating governance (simplified)



Vehicle-sharing operators

Local governments

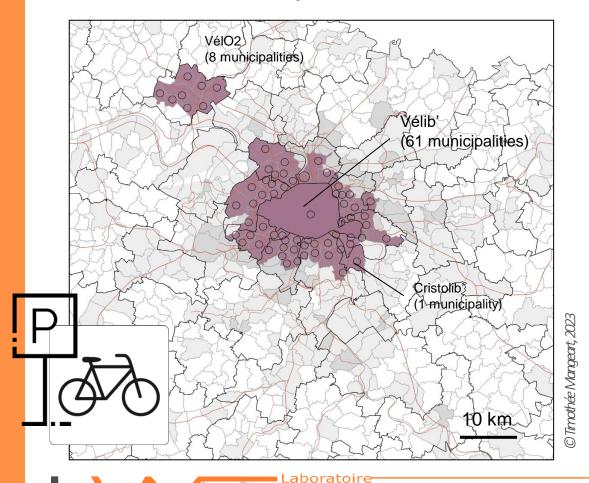


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Areas of operation of vehicle-sharing services

Vélib' and other public shared bikes

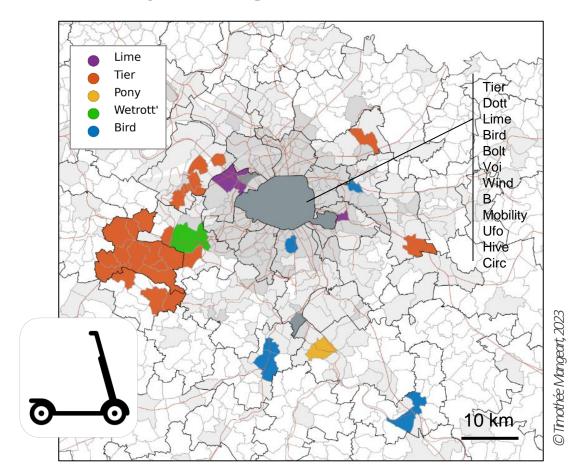


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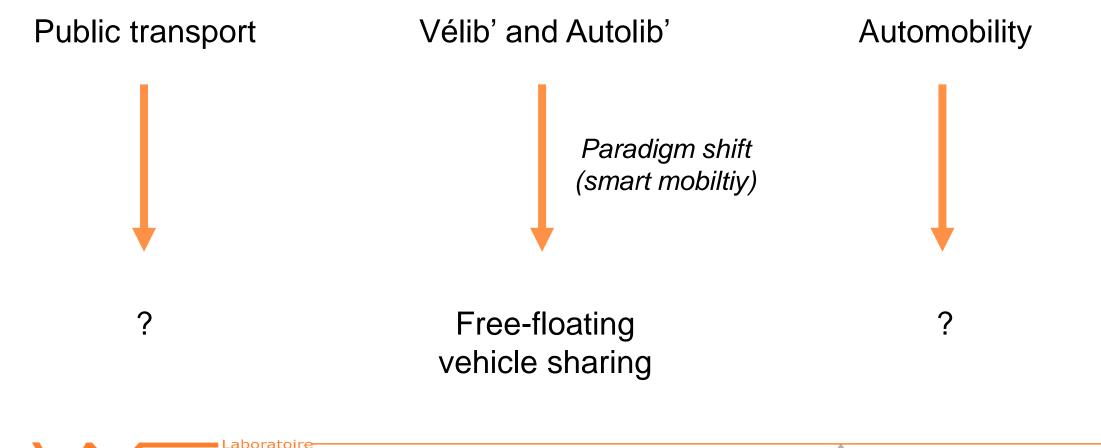
Transport

Free-floating shared scooters





Synthesis : development of vehicle-sharing services and smart mobility paradigm



Ville Mobilité Transport Université Gustave Eiffel

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Timothée Mangeart, LVMT

Thank you 🕲



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