

Arthur D Little

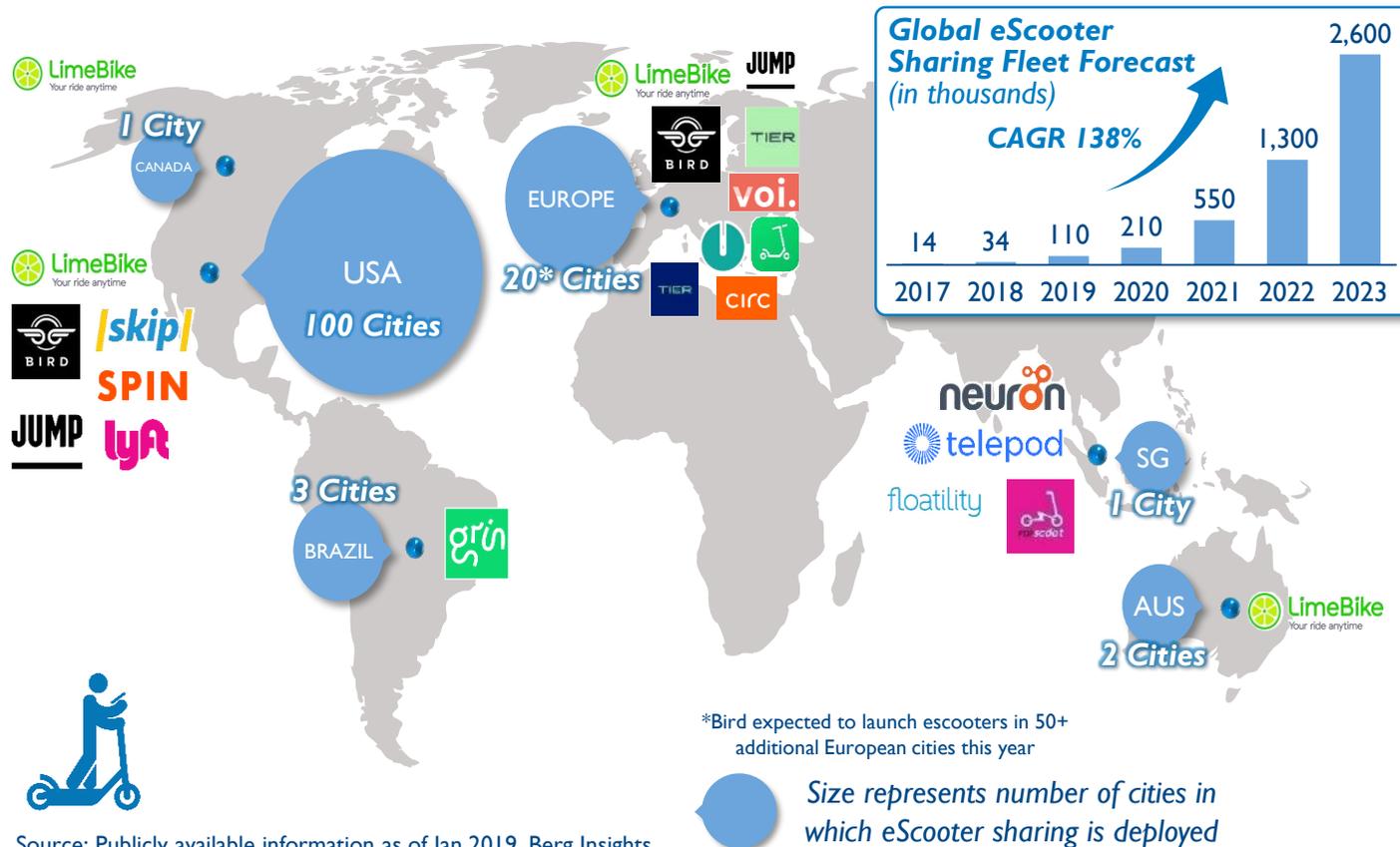
Exploring the potential of eScooters and how cities can find a middle ground

LinkedIn Executive Briefing
Future of Mobility Lab

June - July 2019

Exploring the potential of eScooters and how cities can find a middle ground

1/5 – eScooter Sharing Market Overview



- eScooter sharing market is expected to continue its sky rocketing growth driven by
 - Utility in effectively filling the first last mile mobility gaps
 - less strenuous and faster speeds than other currently available micro-mobility options
- eScooter sharing is already prevalent in more than 125 cities worldwide and is rapidly being adopted by others
- 20 key eScooter operators are currently operational in a global market which estimated to reach ~\$50 billion by 2025

▶ **Next edition:**
Investment Dynamics



Source: Publicly available information as of Jan 2019, Berg Insights

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2/5 – Investment dynamics



- Over 1.3bn USD was invested and over 20 players entered the market over past 2 years
- Bird and Lime, are valued at 2bn USD – they rose to unicorn status faster than any other startup in history
- Investors interest is driven by the phenomenal take-up of eScooters demand globally & improving unit economics driven by technological advances

Total Industry Funding

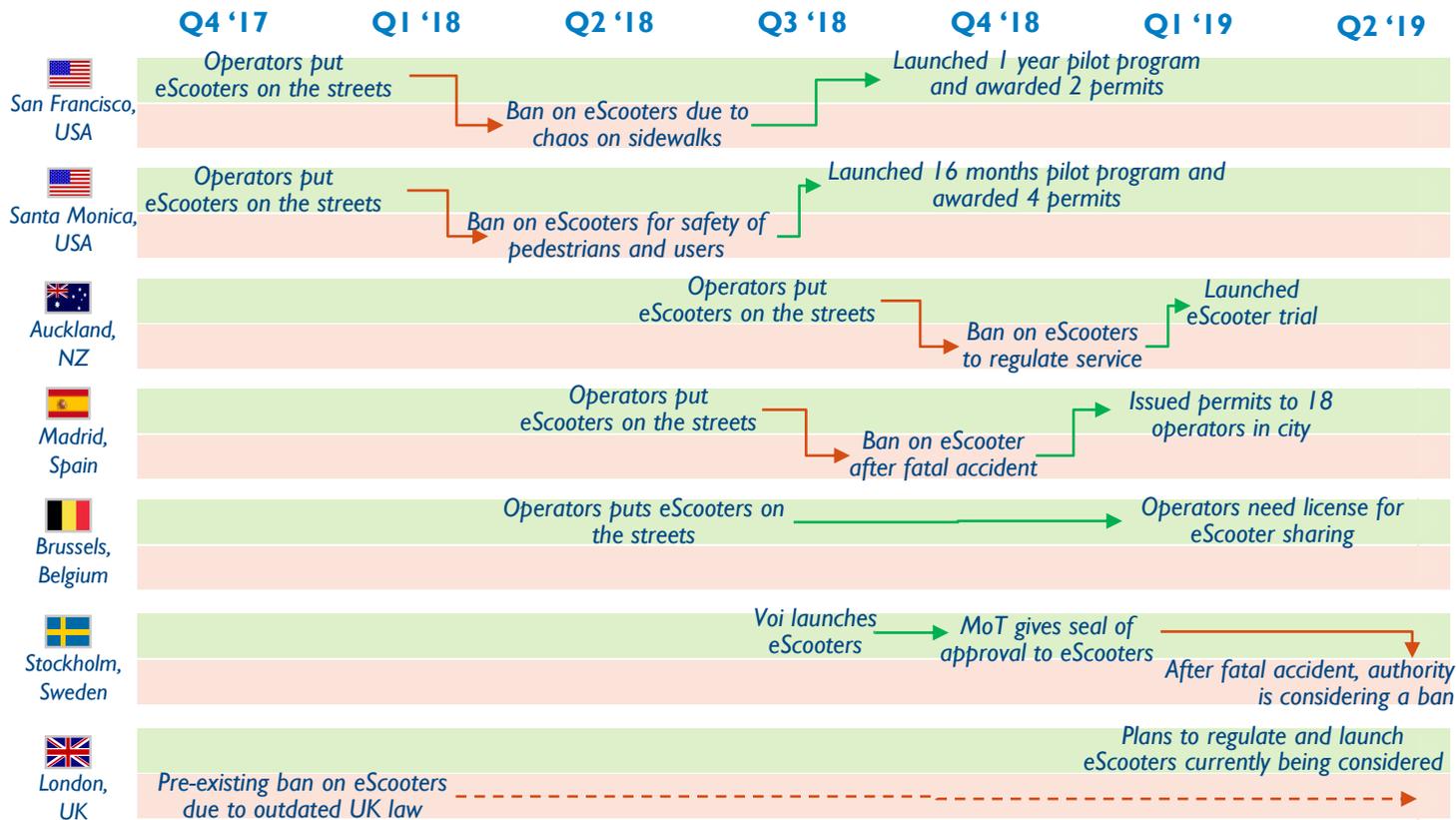
\$1.3bn+

Operator	Founding Year	Investors	Funding to Date	Valuation
	January 2017	ANDREESSEN HOROWITZ, Alphabet, GGV CAPITAL, Uber	<ul style="list-style-type: none"> ■ January 2017: \$ 12m ■ October 2017: unknown ■ July 2018: \$ 335m ■ February 2019: \$ 310m 	\$ 2,400m
	September 2017	Task Ventures, SEQUOIA, VALOR	<ul style="list-style-type: none"> ■ August 2017: \$ 3m ■ February 2018: \$ 15m ■ March 2018: \$ 100m ■ July 2018: \$ 300m 	\$ 2,000m
	May 2018	Menlo, Initialized CAPITAL, SVAngel	<ul style="list-style-type: none"> ■ April 2018: \$ 6m ■ June 2018: \$ 25m 	\$ 100m
	November 2016	GRISHIN ROBOTICS, Ford	<ul style="list-style-type: none"> ■ May 2017: \$ 8m ■ December 2018: \$ 125m 	Unknown

▶ **Next edition:**
eScooter Regulatory Stances

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3/5 – Regulatory stances



- Safety and cityscape visual pollution considerations have led city authorities to approach eScooters with caution and introduce regulations to:
 - Mitigate safety risks
 - Impose rules aiming at reducing city-scape pollution
 - Hold both eScooter operators and personal eScooter users accountable

▶ **Next edition:**
eScooter Mode Regulation

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4/5 – eScooters mode regulation



eScooter Mode Regulation	User Requirements	No user restrictions	Users should be 18+	Users should possess driving license	
	Helmet Requirements	Helmets not required	Helmets required for users under 18	Helmets required for all users	
	Right-of-Way	No regulation of RoW	Side walk	Shared path/ cycle path	Local streets
	Maximum Speed	No restrictions on speed limits	≤30 kph max. speed	≤25kph max. speed	≤10 kph max. speed
	Enforcement	No enforcement fines	Fines on exceeding speed limits	Fines on incorrect usage	
	Vehicle Specifications & Registration	No regulation of vehicle specs/ registration	Regulation of vehicle specs but no registration	No regulation but registration required	Regulation of vehicle specs & registration
	Parking	No regulation of parking	Parking on sidewalks (with guidelines)	Parking through "Lock-to" mechanism	Parking in eScooter stations
	User Insurance Requirements	No insurance		Third party liability insurance	
	Incentives for PT Ridership	No incentives provided	Allow scooters on PT vehicles (with guidelines)	Reduced fares if PT is accessed via eScooter	
	Deployment of Scooter Infrastructure	No deployment of infrastructure	Light infrastructure deployment (signs)	Heavy infrastructure deployment (lanes and paths)	

- Regulating eScooters (owned & shared) implies making careful choices across 10 dimensions
- Regulators must find the right balance between “framing” and “enabling”
- Involvement of key stakeholders into a “test & learn approach” is critical to devise the right regulation

Next edition:
eScooter Service Regulation

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5/5 – eScooter sharing-services regulation

eScooter Sharing Service Regulation	Regulation of Operators	No regulation		Regulate through permits – open market		Regulate through permits – closed market (selected bidders)	
	Regulation of Fleet Size	No cap on fleet size		Dynamic cap on fleet size		Fixed cap set by PTA	
	Operator Fees	No fees	Annual fee per operator	Annual fee/ e-scooter	Daily RoW fee	Endowment fee for city	Fee per Trip
	Operating Model	Free-Floating	Managed Free-Floating		Station-Based	Roundtrip Station-Based	
	User Pricing Model	One-off fee plus pay-as-you-go		Daily fee		Monthly fee	
	Insurance Requirements	No insurance coverage			Third party liability		
	Geo-Fencing	No geo-fence area			Geo-fence communities		
	Monitoring Mechanisms	No monitoring		Monitoring through weekly reports		Monitoring through real-time dashboards	

- Regulating eScooters sharing services should consider risks and benefits for the system as a whole:
 - Contribution to sustainable mobility by providing a solution for the first & last mile
 - Safety and operational impacts
 - Sharing of public space
- ... while ensuring regulations do not impede economic viability of the business model for eScooters operators



The Future of Mobility Lab is **Arthur D. Little's contribution to tackling the urban mobility challenge**. Arthur D. Little aims to use its Future Lab to support cities and nations in **shaping the extended mobility ecosystems of tomorrow** and as a catalyst to enable and facilitate an open dialogue between mobility stakeholders.

– Ignacio Garcia Alves, Arthur D. Little Global CEO

- 1 Foresight analysis and mobility scenario development in uncertain environment
- 2 Definition of national/regional/urban mobility vision, strategies and roadmaps
- 3 Opportunity assessment & Due Diligence of innovative business model and solutions
- 4 Go-to-Market Strategies (incl. set up of multi-stakeholders ecosystems)
- 5 Assessment of mobility performance (Urban Mobility Index)

www.adl.com/futuremobilitylab

Contacts:

François-Joseph Van Audenhove

Partner, Head of FoM Lab
vanaudenhove.f@adlittle.com

Morsi Berguiga

Associate Director
berguiga.morsi@adlittle.com

Vidhitha Kanakamedala

Manager
kanakamedala.vidhitha@adlittle.com

Majid Dabbous

Consultant
dabbous.majid@adlittle.com

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