

How does 'quick commerce' change (or not) urban freight and city policies?

Laetitia Dablanc

- Urban studies, geography and urban planning
- Warehouses, innovations, new trends in consumption and impacts on city logistics
- New methods to collect urban freight data

<https://www.lvmt.fr/en/chaieres/logistics-city/>

Results available online:

- E-book on warehouse geography in the US
- Observatory of ecommerce mobilities
- Survey reports on gig workers for instant delivery platforms in Paris, 2016 to 2022
- Logistics real estate and relationships with urban form, macro analyses



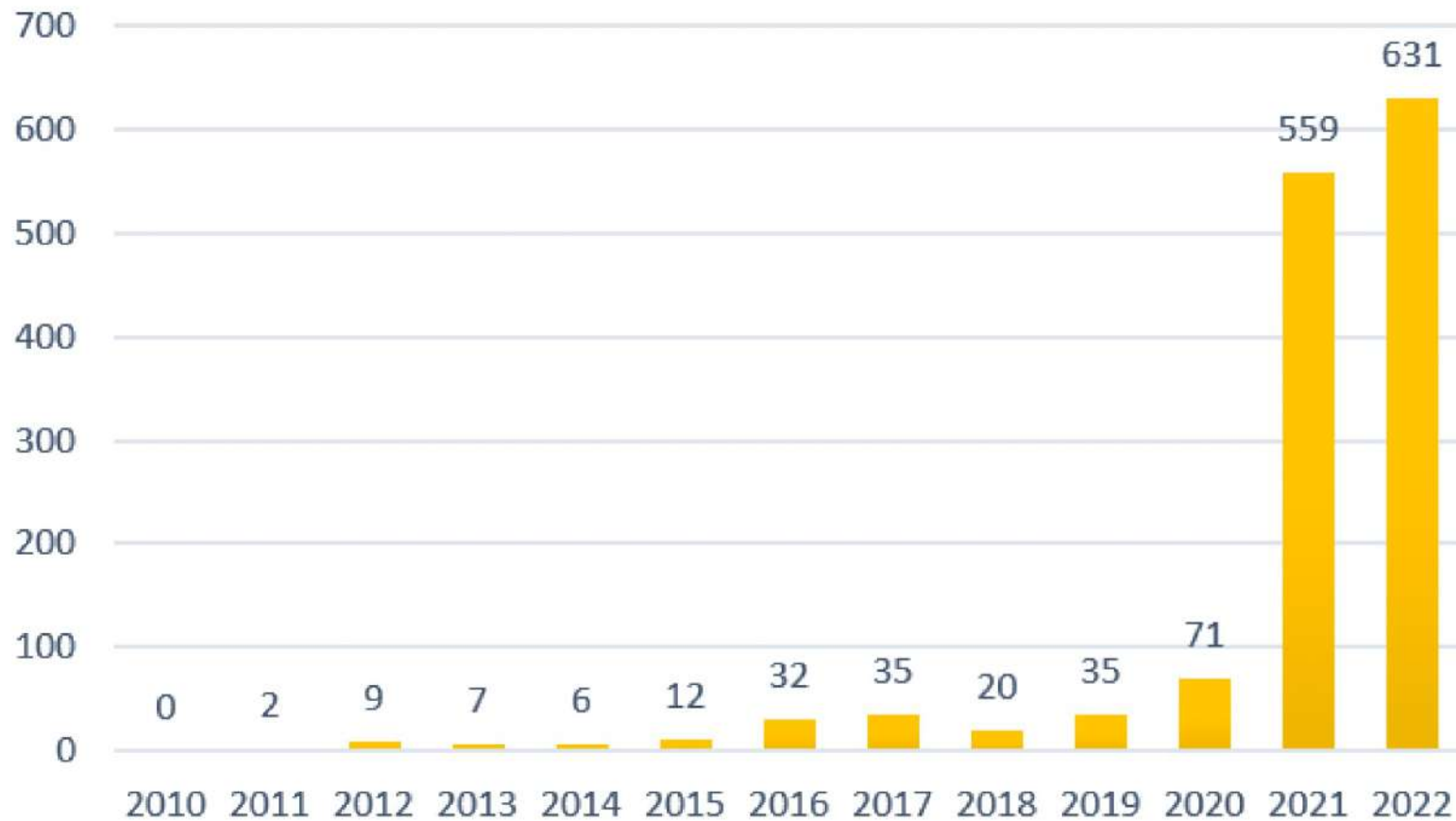
We are hiring: two three-year post-doc positions starting January 2023

Quick-commerce for grocery

- A service providing ultra-fast delivery of groceries bought online
- Based on a network of small fulfillment centers ('dark stores') from which deliveries are made by bikes, mopeds, cars, vans...
- Use of employees as well as gig workers
- At a cross-road today
 - financial challenges
 - political challenges
- A market niche
 - 5% of online groceries in Chinese cities in 2021 (Zaugg, 2021)



Number of newspaper articles in Europe about “quick commerce” and “dark stores”



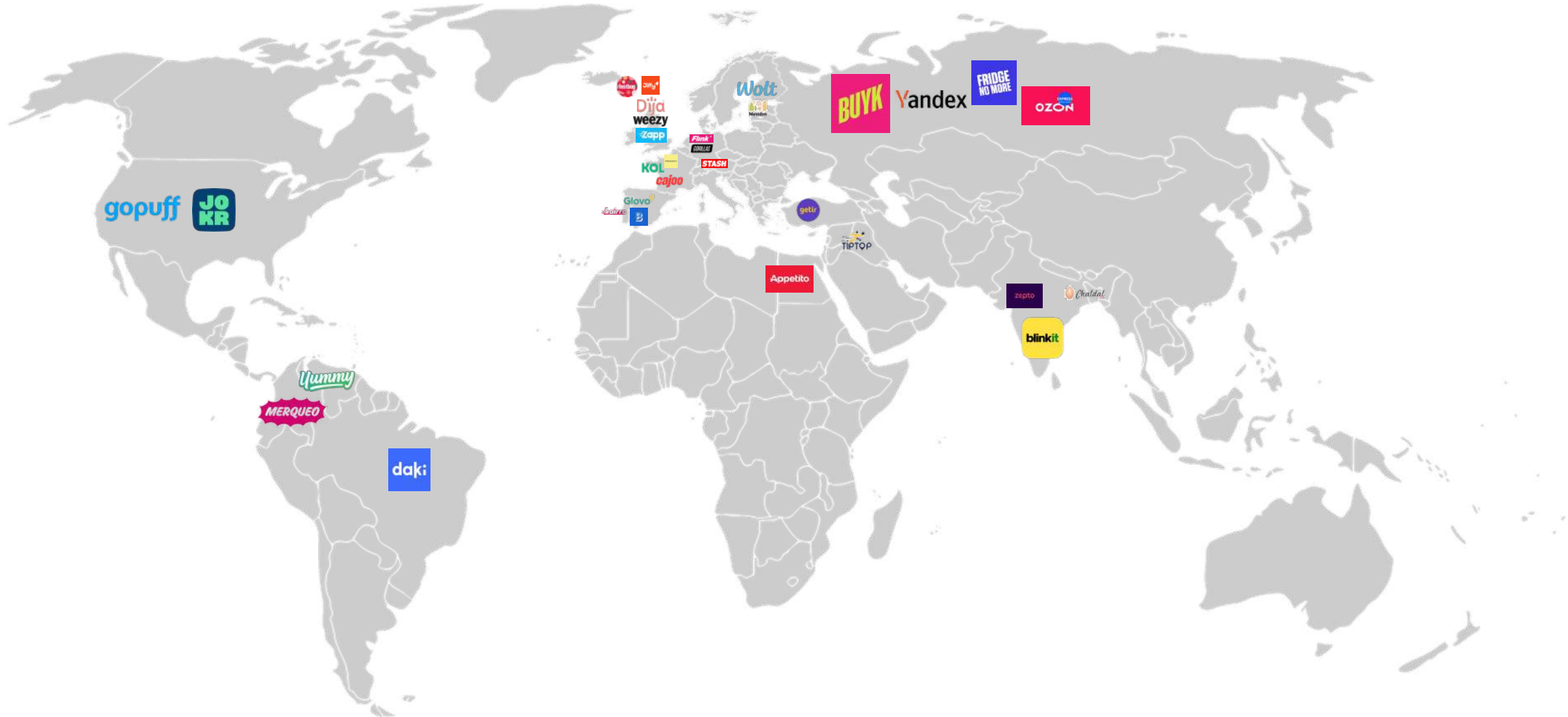
- Search from the *Europress* database

Amsterdam... as seen by local newspaper NRC Handelsblad



Slide credit: H. Buldeo Rai, Logistics City Chair

Worldwide development



Slide credit: H. Buldeo Rai, Logistics City Chair

Originated from Asia and well established in China



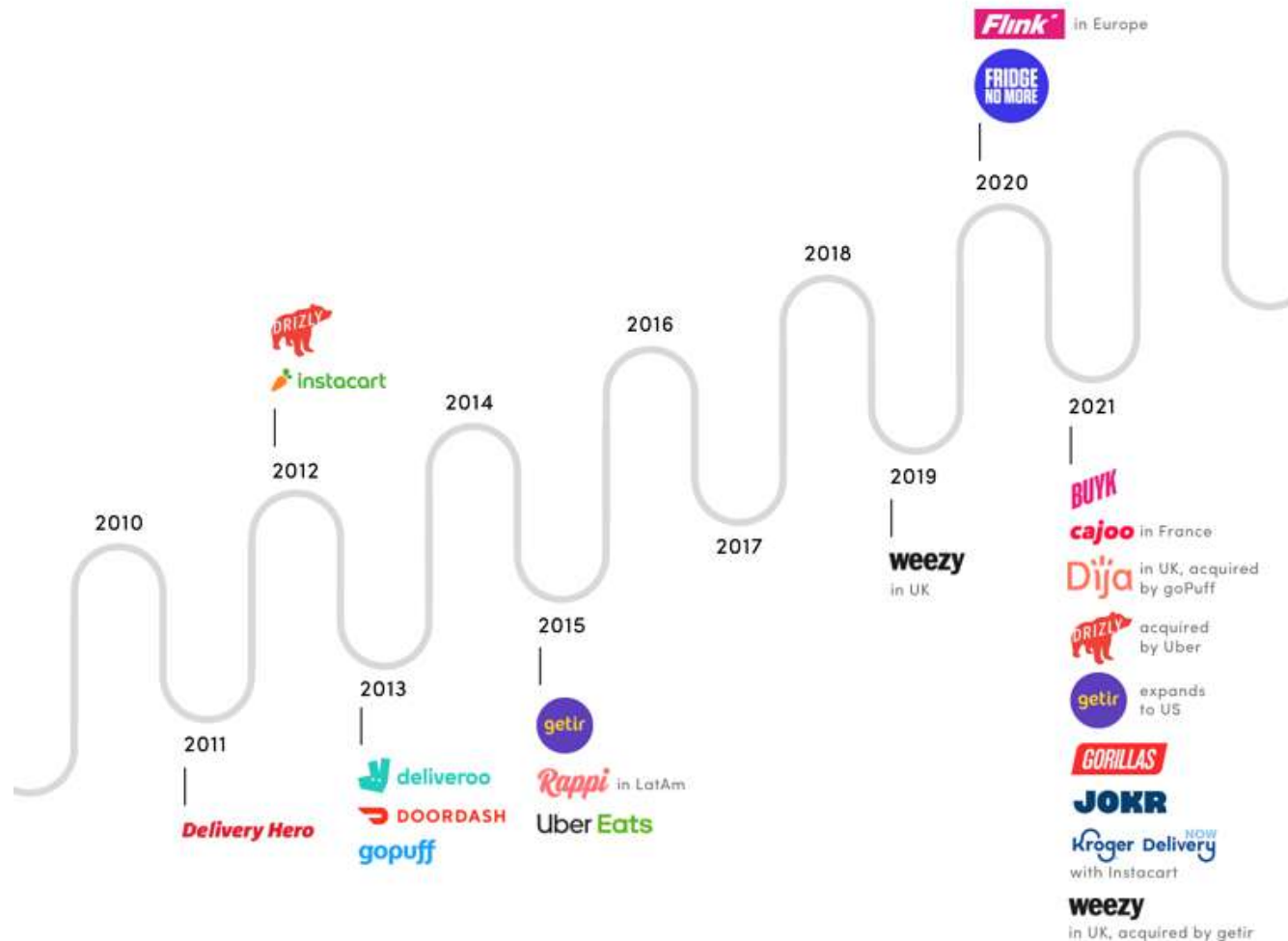
Dark stores by Missfresh



Warestores by Hema Fresh

Slide credit: H. Buldeo Rai, Logistics City Chair

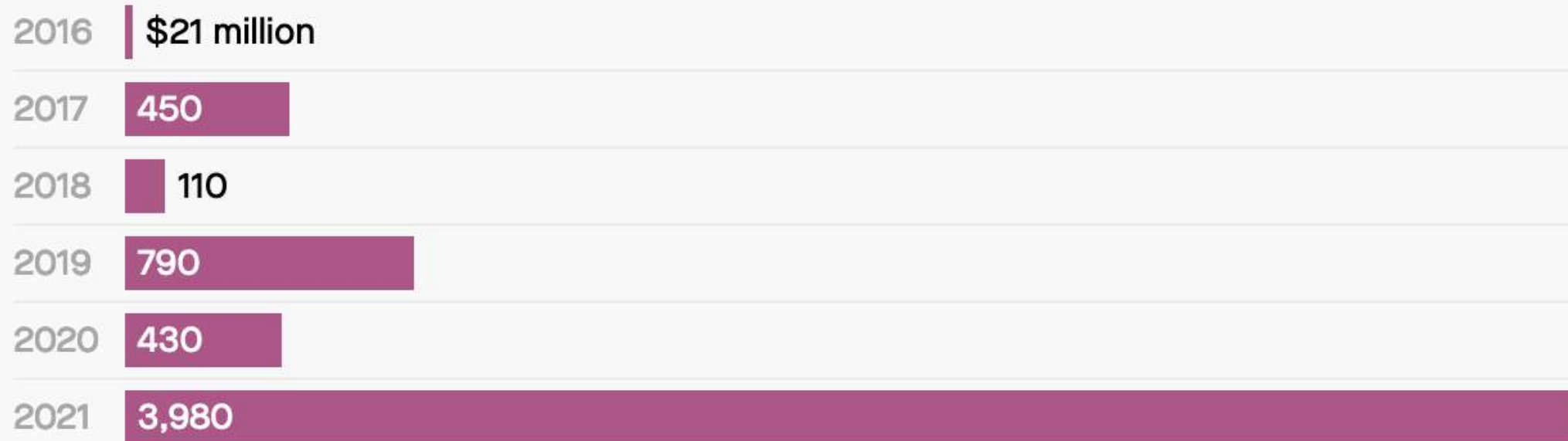
Number of companies exploded in 2021



- Gopuff revenue in 2021: \$1 bil (three times more than in 2020)
- 10 million app downloads
- Gorillas revenue in 2021: \$220 mil
- Getir Turkish dark stores: average of 500 orders a day

\$4 billion invested in *quick commerce* by VC in 2021

Global venture capital investments in ultrafast grocery delivery



Quartz | qz.com | Data: PitchBook

Slide credit: Quartz, data from Pitchbook, 2022

Performance and financial indicators

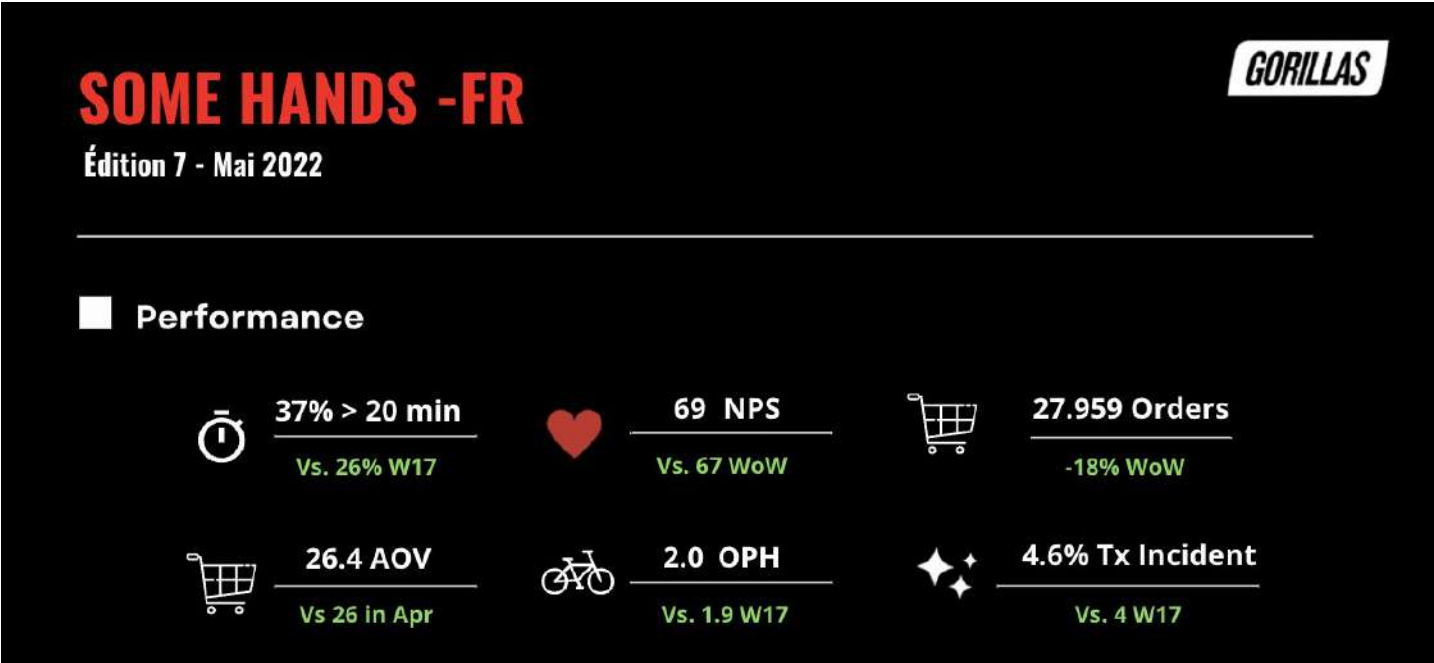
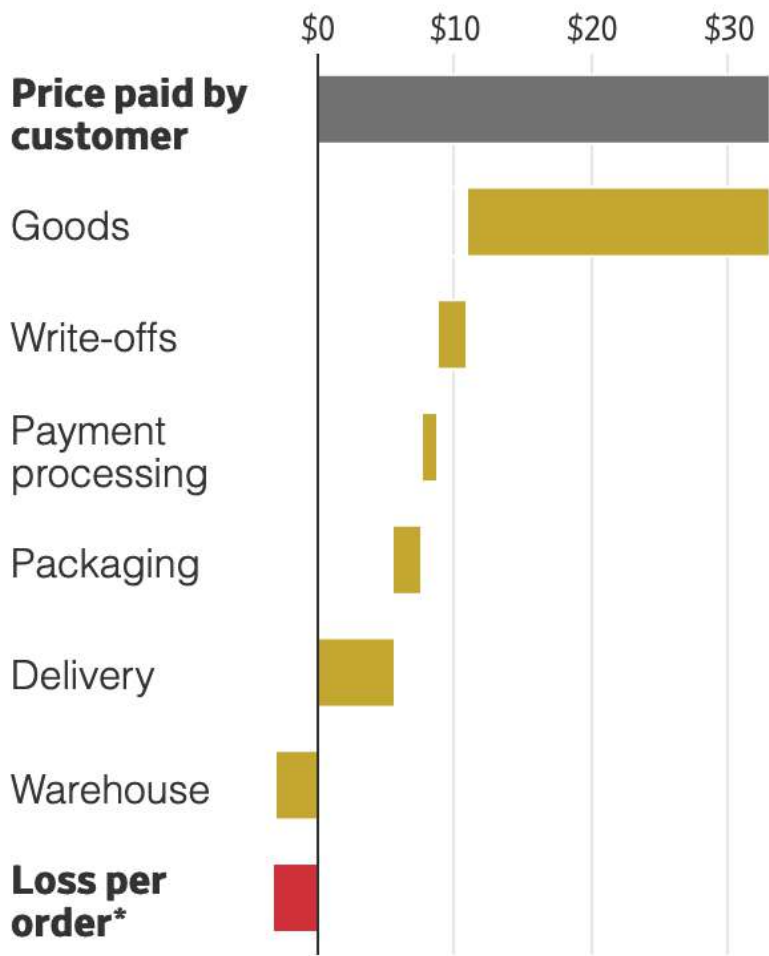


Figure credit: H. Buldeo Rai, Logistics City Chair,
from Gorillas

Fast Delivery, Quick Losses

Fridge No More's costs per average order,
September 2021

■ Cost per category



Note: Excludes sales and marketing, administrative
expenses and other overhead costs

Source: Fridge No More investor presentation

Challenges

- Data on Gorillas, Getir, Zapp, Flink: transactions peaked in January 2022 and have declined since then (ABN Amro)
- VC, investors more reluctant
- Government backlashes and economic situations (Turkey, China)
- Lay-offs, mergers, market retreats
- A sound business model is possible (Genelot, 2022) if:
 - a few more deliveries/staff
 - a slightly higher delivery price paid by consumers
 - a more optimized sourcing
 - less expenses in advertisement
- Advantages: more revenue/m² and less product waste than supermarkets

How to become profitable? Simulation for Paris quick commerce

↘ *Number of deliveries per staff (productivity)*

	5	10	15	20	25
15	-52 352 €	- 37 318 €	- 22 284 €	- 7251 €	7 782 €
20	- 55 921 €	- 35 876 €	- 15 831 €	4 213 €	24 258 €
25	-59 490 €	- 34 434 €	- 9 378 €	15 679 €	40 735 €
30	- 63 059 €	- 32 991 €	- 2 923 €	27 144 €	57 211 €
35	- 66 627 €	- 31 549 €	3 530 €	38 608 €	73 687 €
40	- 70 196 €	- 30 106 €	9 984 €	50 073 €	90 163 €
45	- 73 765 €	- 28 663 €	16 437 €	61 538 €	106 639 €

↑ *Number of delivery staff*

- Blue: observed for one example
- Red: not profitable
- Yellow: dark store profitable (without centralized costs)
- Green: entire company profitable (without advertisement costs)
- Grey: entire company profitable ((with advertisement costs)

Strategies



Acquisitions

Delivered in
10 minutes?
Bananas!



Partnerships



More services

Gopuff in Soho, NYC

A warehouse AND a coffee-shop AND a click&collect area



M. Schorung, Logistics City Chair, March 2022

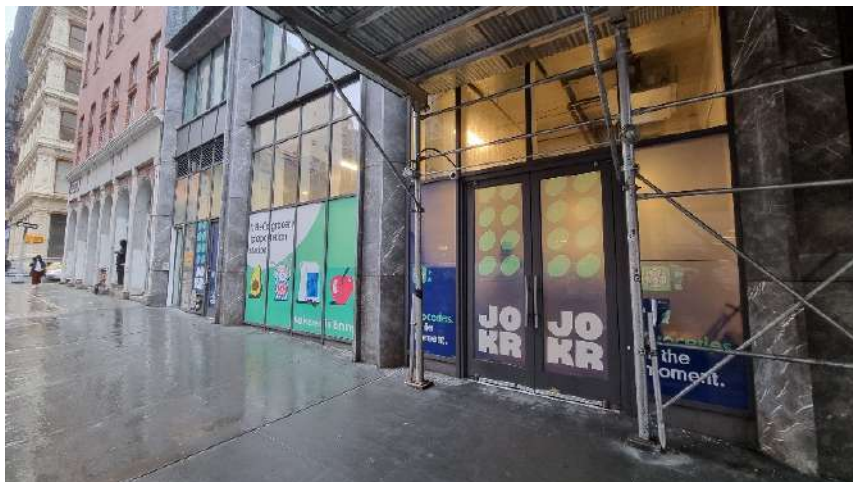
Dark stores in New York City (110 by Feb 2022)

JoKr

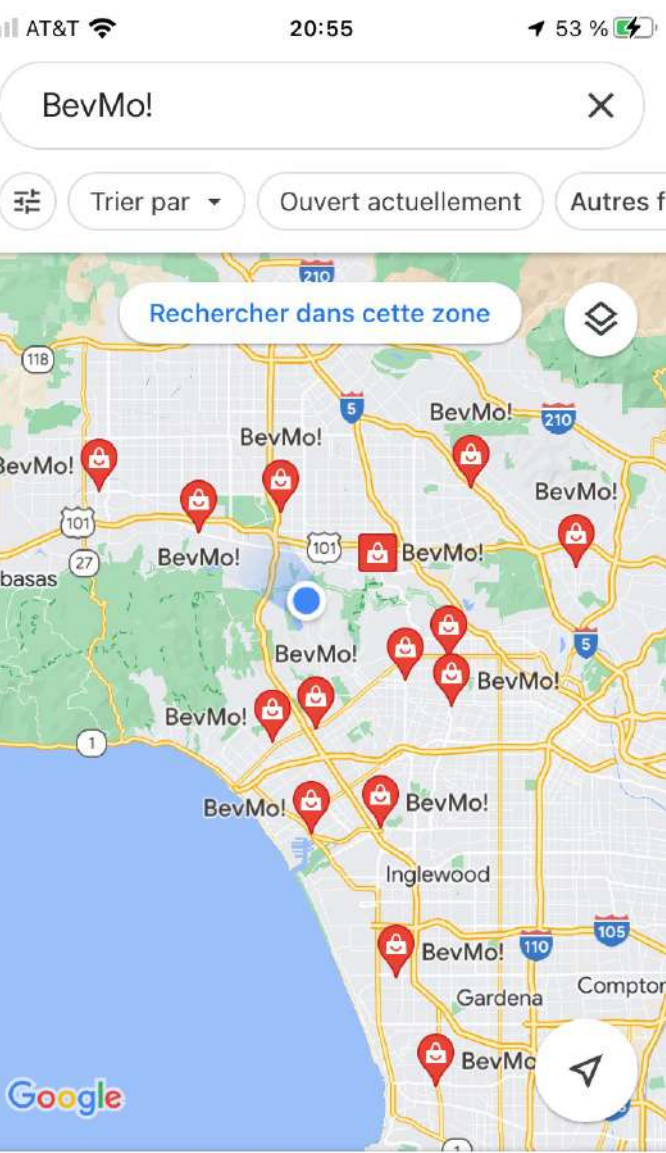
Fridge No More (gone today)



M. Schorung
and L.
Dablang,
March 2022



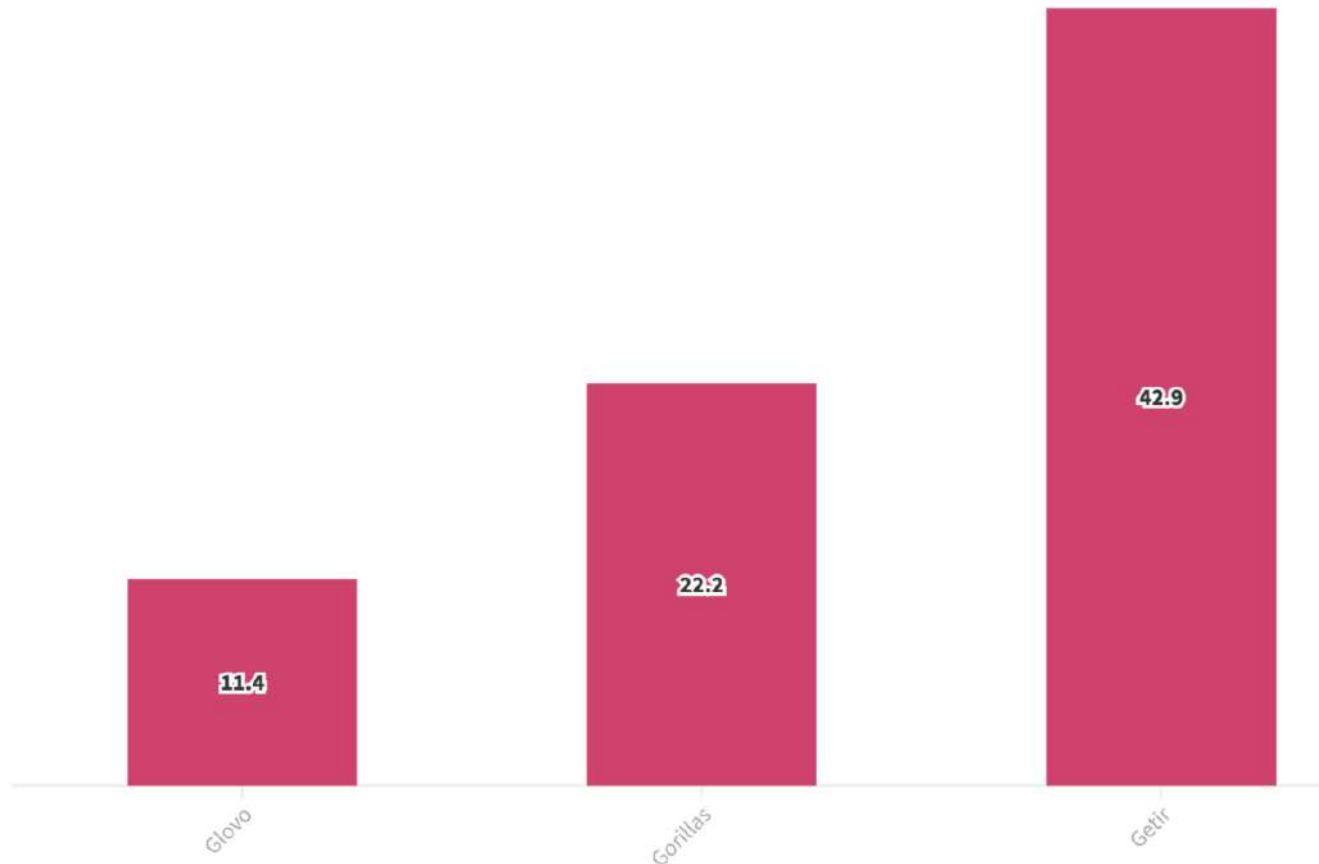
Gopuff in Los Angeles: use of BevMo! stores



Dark stores from Getir, Gorillas, Glovo in Europe as of March 2022

Average number of dark stores per European country

\sifted/

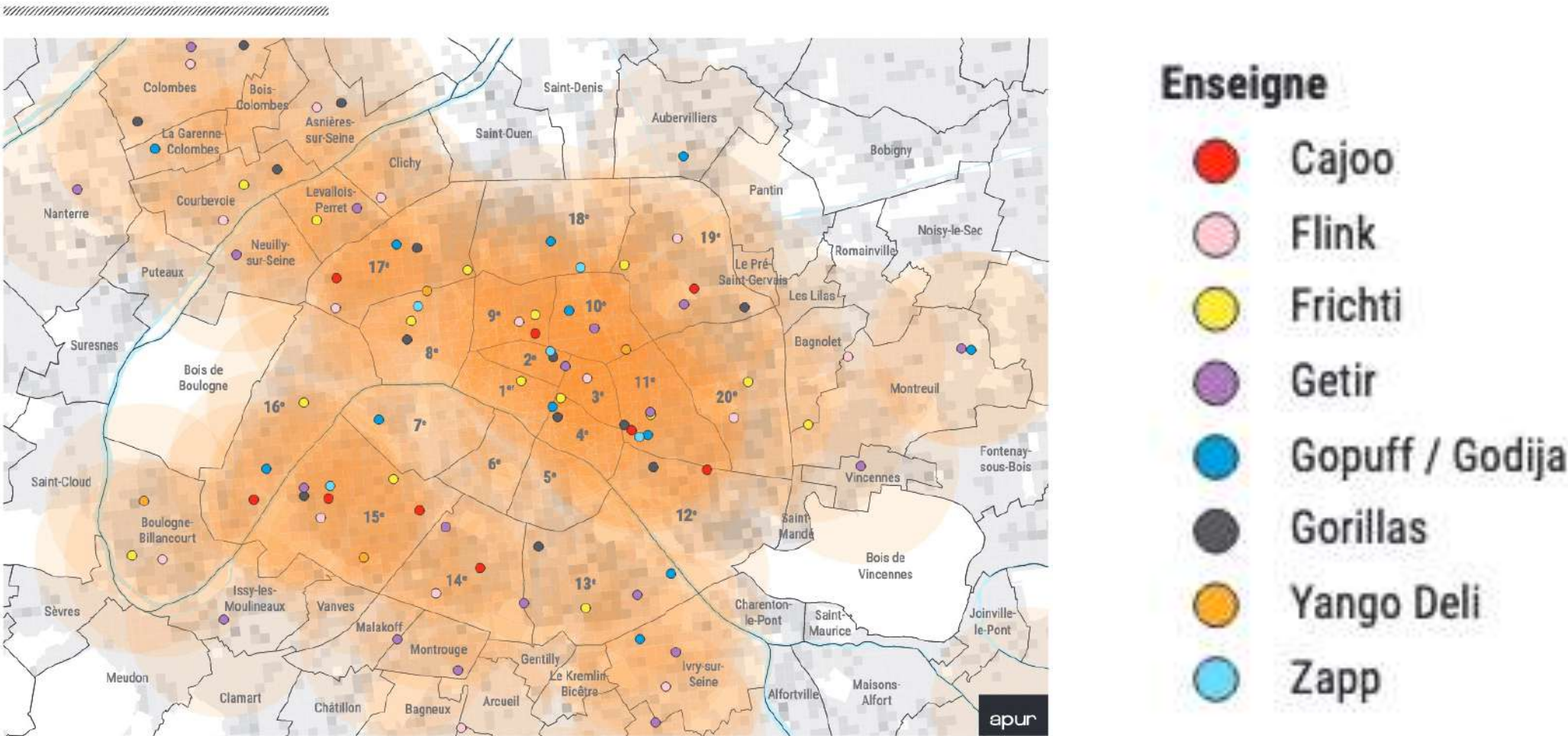


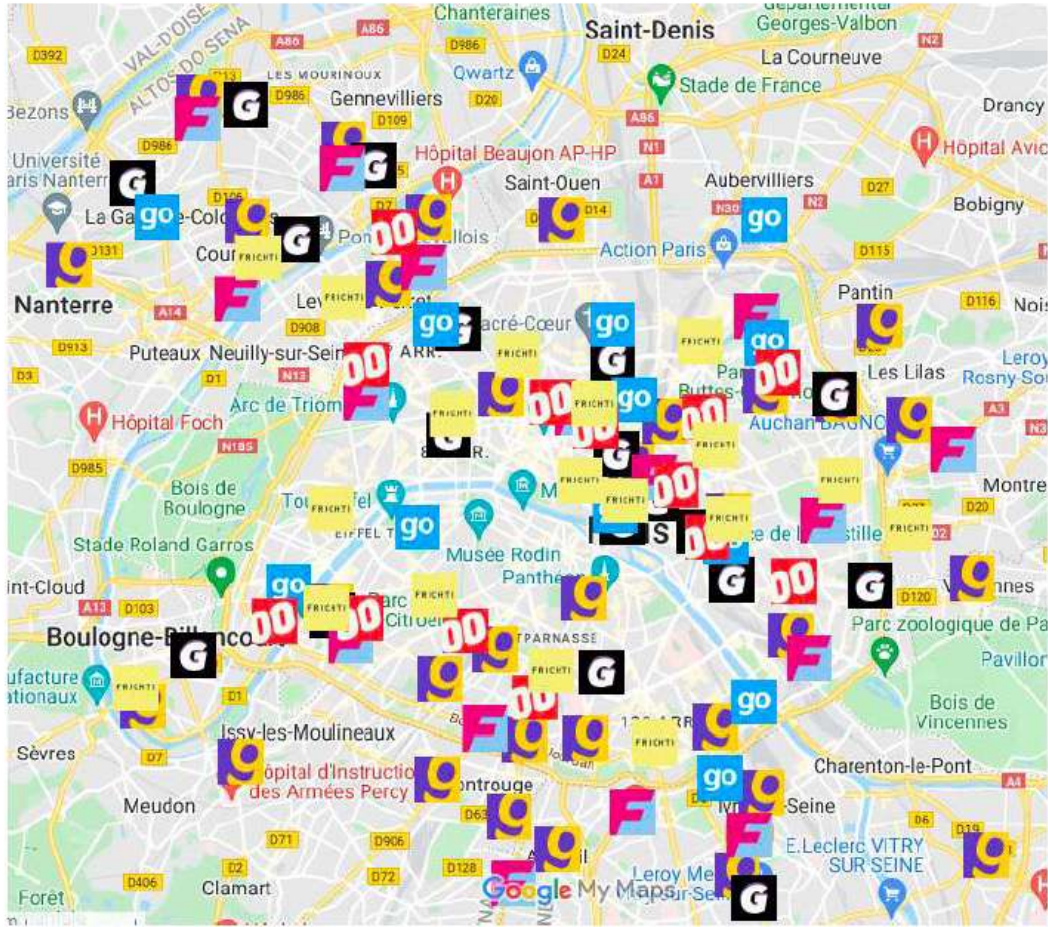
Market penetration (used at least twice)

- 1.5% of households in France
- 3% of households in the Paris region
- 11.5% of households in the City of Paris

Dark stores in Paris: 80 by Jan 2022

IMPLANTATION ET ZONE DE LIVRAISON DES DARK STORES





- 69 dark stores identified in April 2022 with use of societe.com
- Huge competition for spaces: rental prices can go up to 400€/sq m/y
- (twice as much as urban warehouses)

FIGURE 3 – Carte de localisation des *Dark Stores* selon les données collectées sur societe.com

Store or warehouse?



Fricti in Paris 11th

- Between 200 m² and 400 m²
- 2,000 SKUs, one-third from local producers
- Limited infrastructure requirements
- Five to fifteen employees
- Target upscale markets but do not necessarily need upscale locations
- Serve neighbourhoods in ten to twenty minutes within a two-km radius
- Use of two-wheelers including electric mopeds and cargo-bikes
- Equipment and vehicles are generally provided to delivery drivers

Need for a network of warehouses: example of Paris neighborhoods

Paris



Aligre



Bastille



Batignolles



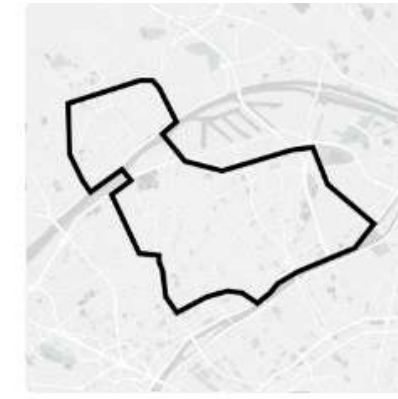
Champs-Élysées



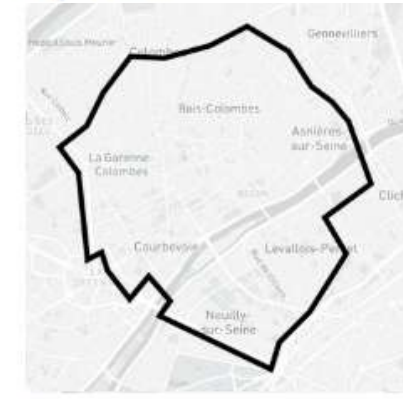
Sentier



Vitry-sur-Seine



Colombes – Argenteuil



Courbevoie



Beaugrenelle



Belleville – Les Lilas



Boulogne – Billancourt



La Garenne – Colombes



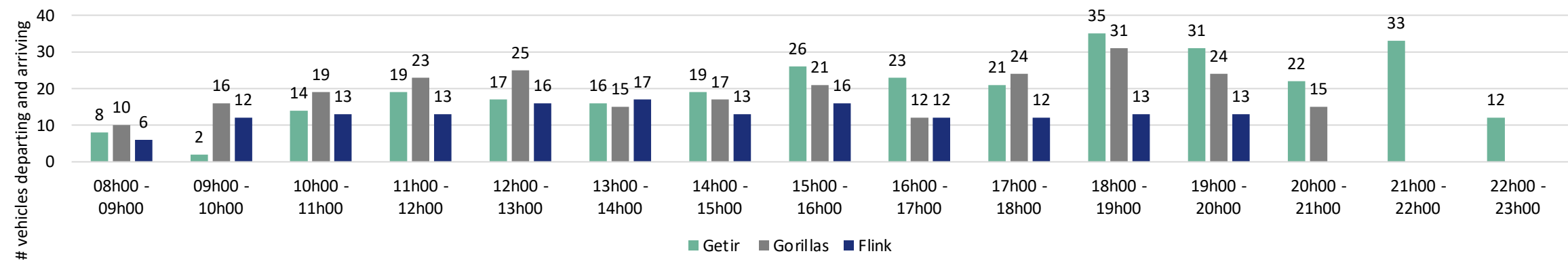
Les Gobelins



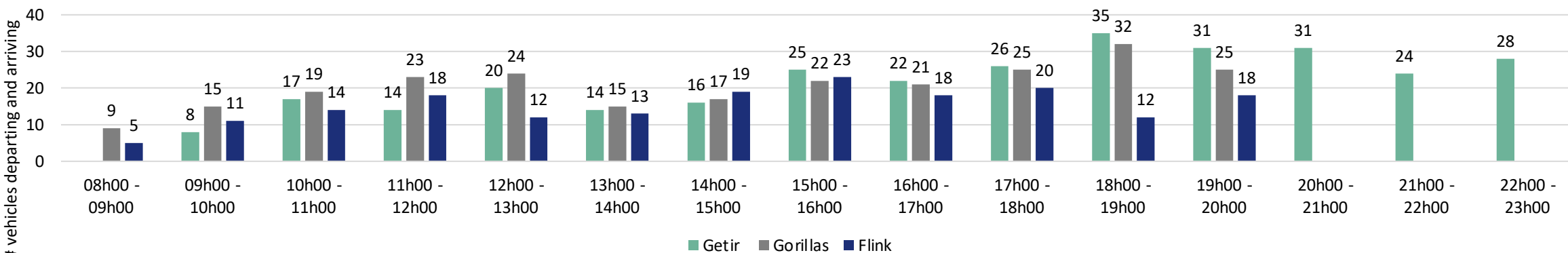
Montmartre

Up to one departure or arrival every two minutes

Transport intensity of dark stores on week days



Transport intensity of dark stores on weekend days



Transport and land use intensity of *dark stores*, observations from Getir in Paris 11th district, February 2022



Regular supplies of about five pallets



About 11 to 13 delivery vehicles occupy on-street parking spaces



1.3 deliveries per departure during the week and 1.5 during the weekend

Opposition from city authorities

- Paris: forty *dark stores* threatened of closure for lack of petition to change land use destination from 'commerce' to 'warehouse'
- One-year ban in residential areas of Amsterdam and Rotterdam, The Netherlands
- A Dutch judge in June 2022 has concluded Gorilla dark store in an Amsterdam mixed-use neighborhood is a warehouse not a store
- Ban on new openings in Madrid and Barcelona, Spain
- New York survey: 81% operate outside warehousing zoning (BetaNYC civic group, March 2022)

February 3, 2022
6:04 PM GMT+1
Last Updated 2 months
ago

The Great Reboot

Rotterdam joins Amsterdam in freezing new "dark stores"

By Toby Sterling

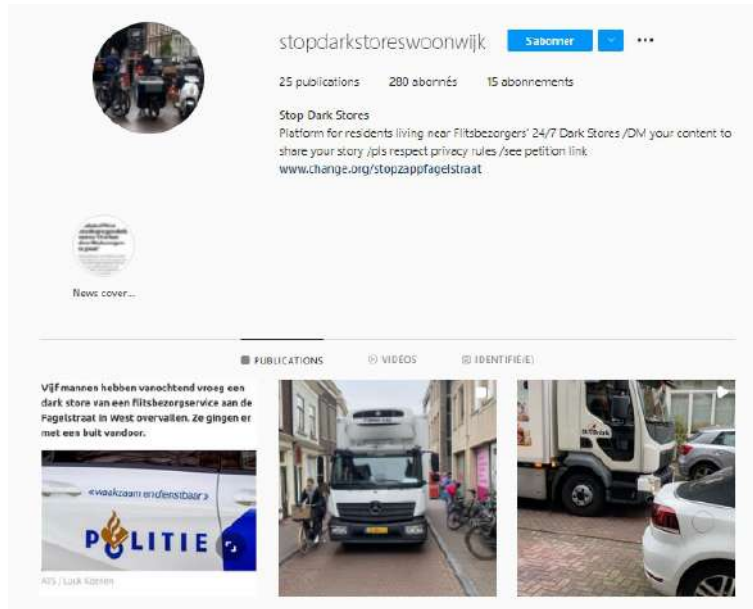


Barcelona prohibeix l'obertura de noves dark stores i limita les macrocuines a zona industrial

EL MERCANTIL | Barcelona

11 de marzo de 2022

Backlash from local residents on noise, aesthetics, safety



Instagram page in Amsterdam



My Bodega Online initiative in New York



Online Town Hall meeting in Paris



Comment signaler un « dark store » non autorisé

Mise à jour le 24/03/2022

Partager

A City of Paris app organizes community identification of unauthorized *quick commerce* warehouses

- « How to signal a non-authorized 'dark store' »
- (Previous version: « How to denounce a non-authorized' dark store' »)

Traffic and curb management, clean vehicles

- Use of bikes, e-bikes, mopeds and e-mopeds
- Bikes have a competitive advantage as they can use bike lanes
- Rental services of e-bikes and e-mopeds (ex. Bizebike)
- An opportunity for introducing e-mopeds (lagging behind in Europe)





❑ Delivery Workers Zone

❑ Delivery Preparation Zone

❑ Picking and Order Preparation Zone

Fire Safety Guidelines, Paris dark store, April 2022
Logistics City Chair, Creusé et al., 2022

Livability of cities

- Paradox of the '15 minute city'
- Closed façades generating a sense of deprivation of city life (and sense of danger)
- More generally: quick commerce favors a mode of consumption that is contrary to what cities represent
- 2020 New York City law: cash must be accepted by local stores
 - Exemptions for online ordering
- Opportunistic use of vacant retail space in immigrant neighborhoods
- But also increased sourcing of local products

NEWS

New wave of fast-delivery stores spark worries they threaten bodegas, isolate poor New Yorkers

BY ARUN VENUGOPAL

PUBLISHED JULY 9, 2022 | 105 COMMENTS



Conclusion

- Part of the grocery service provision in cities
- Frontiers between local warehouses and stores increasingly blurred
- Wider issues for cities
 - vehicle impacts (noise, emissions)
 - curb management for new delivery vehicles
 - Urban traffic management challenged by increased variety of delivery vehicles

