

Post-pandemic omnichannel retail strategies & implications for urban logistics

Heleen Buldeo Rai

Logistics City Chair Univ Gustave Eiffel



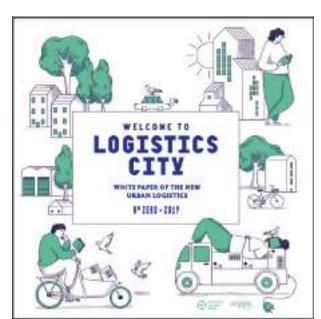


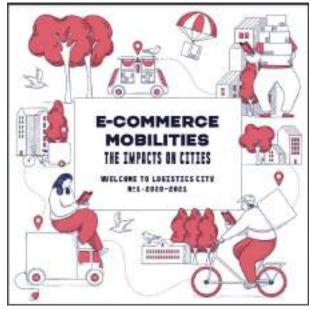












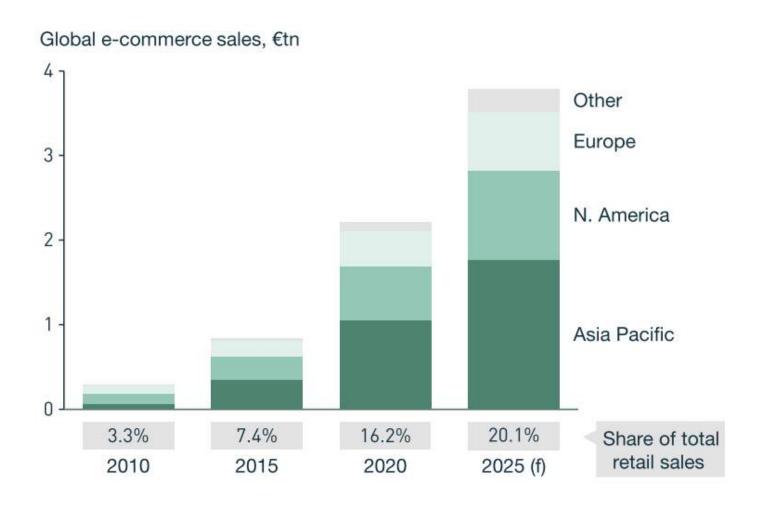


# Quick commerce invites cities to prioritise urban logistics

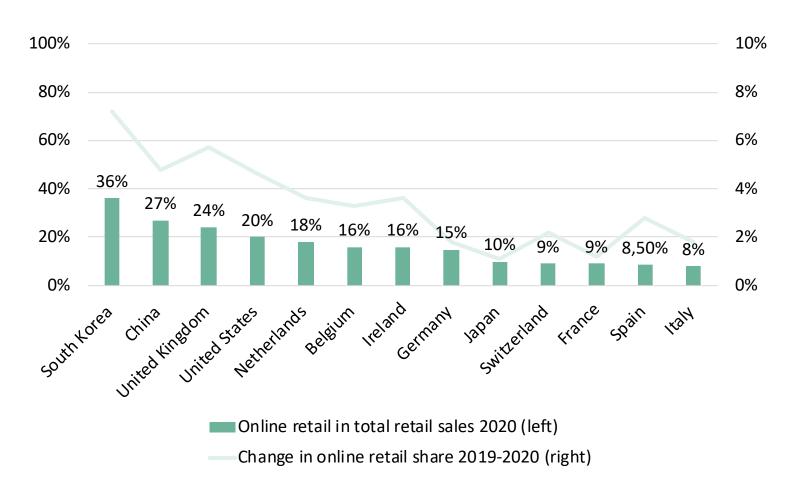


# E-commerce & the impact of online shopping on retail

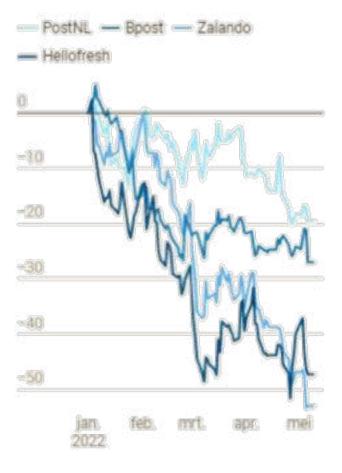
### E-commerce, a sector that has been growing at double digit rates for more than a decade



# Growth accelerated by the pandemic, but to very different degrees

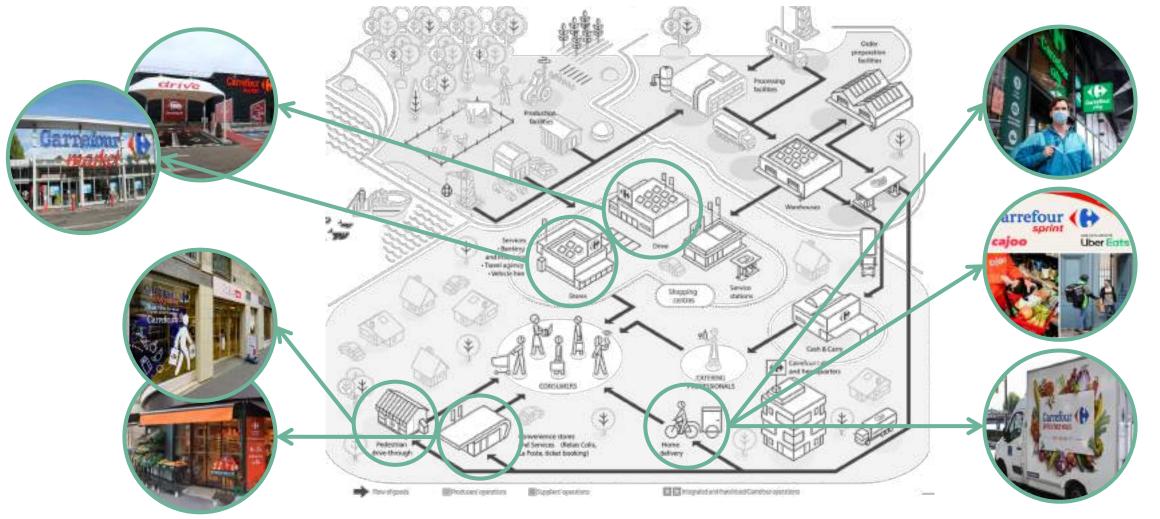


# Recent figures show, however, that parcel volumes are decreasing again, due to fading pandemic and high inflation



Price trend on stock exchange of PostNL, Bpost, Zalando and Hellofresh (in %)

From 'retail apocalypse' and 'death of distance' to omnichannel, example of Carrefour



Reference: Hagberg et al., 2017; Couclelis, 2004

# Omnichannel retail is now common practice among a range of stakeholders









# Omnichannel retail has profoundly changed the role of the traditional store, transforming setting and offering

	Modified store setting	New store setting		
<b>Operational</b>	Showrooms, zero-inventory stores, digital assortment	Click-and-drive, third party access points, lockers,		
offering	extension, digital shelf extension, virtual shelf expansion	collection points, pick-up stations, delivery points		
	Buy online, pick-up in store (BOPIS/BOPS), click-and-collect, curbside pick-up, reserve online, pick-up and pay in store (ROPS)	Stores-on-wheels		
	Buy online and return in store			
	Buy online, get it delivered from the store (BOGIDS), ship-			
	from-store (SFS), warestores, dedicated stores as fulfilment nodes, dark stores			
Experimental	Experience stores, flagship stores, concept stores, pop-up			
offering	stores, temporary stores, third places			
	Cashier-less stores			

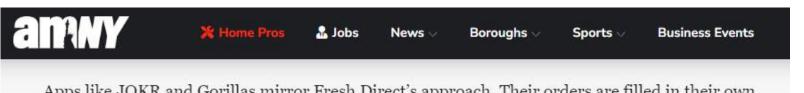
Reference: Buldeo Rai, 2022

# Operational implications of omnichannel store concepts, from upstream supply flows to downstream delivery flows

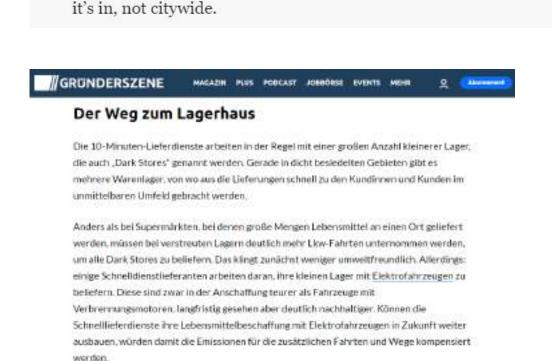
	Supply	Inventory	Fulfilment	Processing	Delivery
Showrooms, zero-inventory stores, digital assortment extension, digital shelf extension, virtual shelf expansion					
Buy online, pick-up in store (BOPIS/BOPS), click-and-collect, curbside pick-up, reserve online, pick-up and pay in store (ROPS)		( )	( )		
Buy online and return in store					
Buy online, get it delivered from the store (BOGIDS), ship-from-store (SFS), warestores, dedicated stores as fulfilment nodes, dark stores					

# Dark stores & quick commerce, deciphering the developments

### "Dark stores", what's in a name



Apps like JOKR and Gorillas mirror Fresh Direct's approach. Their orders are filled in their own warehouses, not at independent grocery stores or restaurants — but that's where the similarities end. Rather than concentrating their stock in one huge warehouse, they make use of "dark stores," micro-warehouses scattered across the city. Each micro-warehouse delivers to the neighborhood





### Retailers 'turned' stores 'dark' during lockdown, temporarily or permanently, to increase delivery capacity and speed

#### Whole Foods Goes Dark in Brooklyn



It seems like the pandemic related dark store trend in the United States is going to stick.

Whole Foods Market announced Wednesday it: has opened its first, permanent online-only location in Brooklyn. New York.

"This new delivery-only retail model will allow Whole Foods Market to serve even none easturners and continue to meet the growing demand for grocery delivery," the company said in a blog post. The store will serve customers mily in the Brooklyn area.

News of the new format comes after Whole Foods converted at least six stores earlier this year to help meet COVID-19 demand. Four of the six stores have since co-



Whole Foods Market an opened its first, permar

Bed Bath & Beyond converts 25% of its stores into regional fulfillment centers



**Exclusive Without** 

Bed Bath & Reyard has made a quick proof to most sunging online demand during the COVID-19 pandemic.

The home goods retailer said it concerned approximately 25% of its stores across the US and Canada into regional fulfillment centers almost doubling its-digital fulfillment capacity: - to support a significant rise in online sales. Bed thath A Beyond said its digital sales are upby more than 85% to date in April.



#### Les « dark stores », ces supermarchés sans clients et entièrement conçus pour la vente en ligne

Ils ont la fonctionnalité d'un entrepôt, mais l'organisation d'un magasin. A Paris, des salariés de Monoprix préparent des commandes à des dizaines de mêtres sous terre.

Pay Coole Prodhonnie

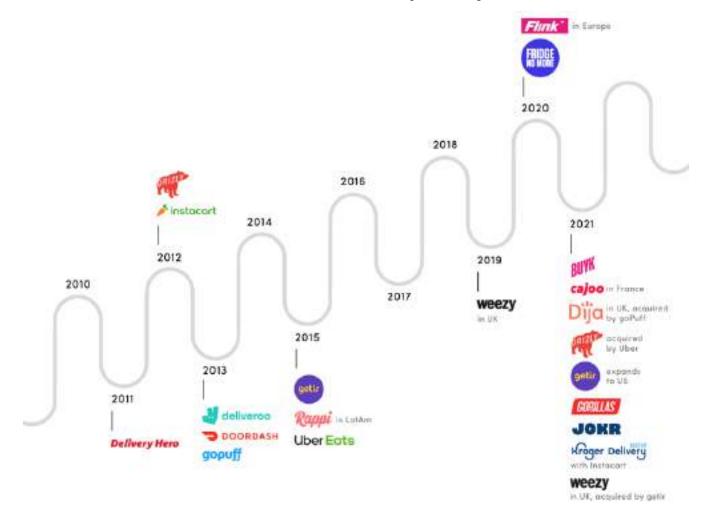
Publish 17 mars 0001 à 01k07 - Mara jour la 17 mars 2001 à 165-41 - 65 - Cecture 7 min.

Article reservé aus situanes



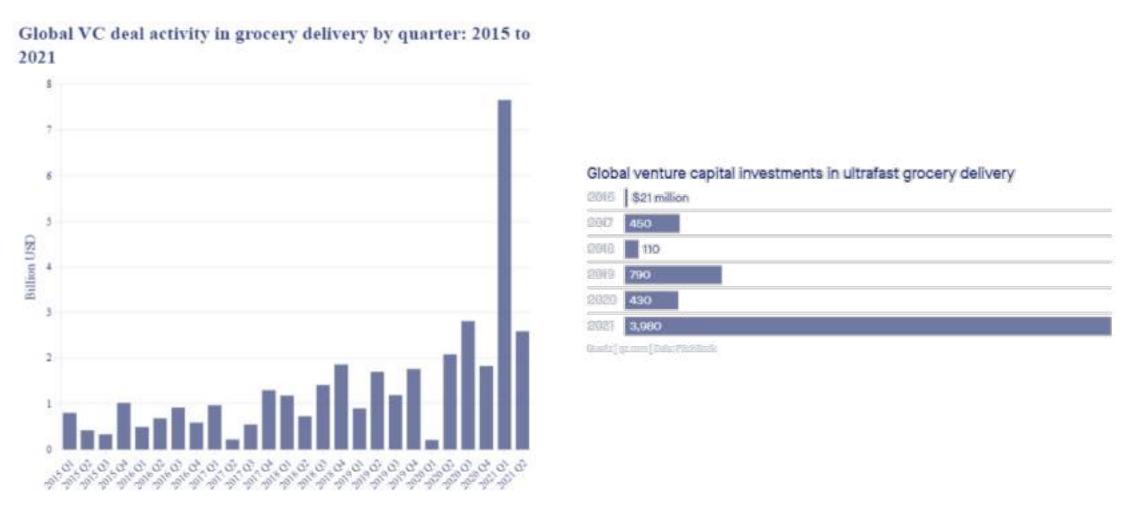
A Trestrucuratio - date intro- - da Marragora, attual dans le 15kms amendacament de Paris. le 12 mars, n. montroven i provinces

Simultaneously, the number of instant grocery delivery start-ups, that rely on dark stores, increased rapidly



Reference: Skrovan, 2022

# Venture capitalists invested nearly \$4 billion in instant grocery delivery in 2021, following a strategy of 'blitzscaling'



Instant grocery delivery, or quick commerce, exists alongside other segments in food e-commerce



### Instant versus regular food e-commerce

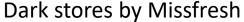


Press coverage focuses on locally present start-ups, but instant grocery delivery is a global phenomenon, some examples



# In fact, the instant grocery delivery model finds its origins in Asia and is an established practice in China in particular

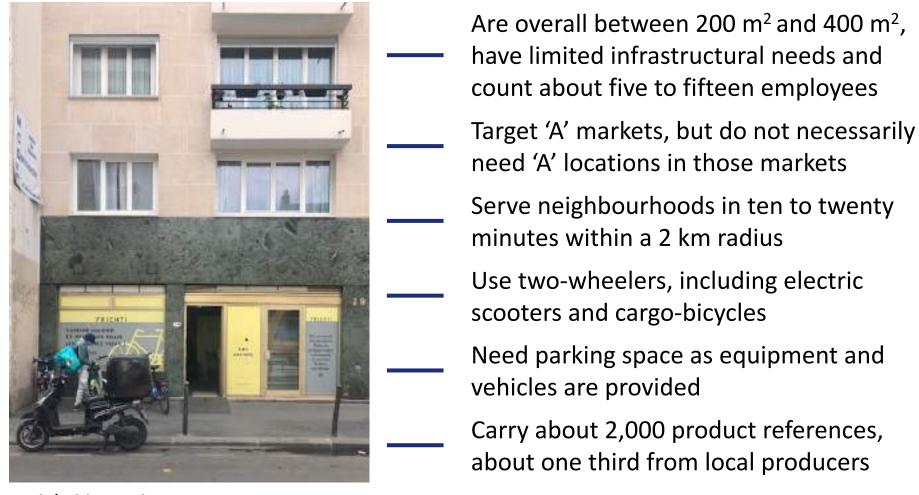






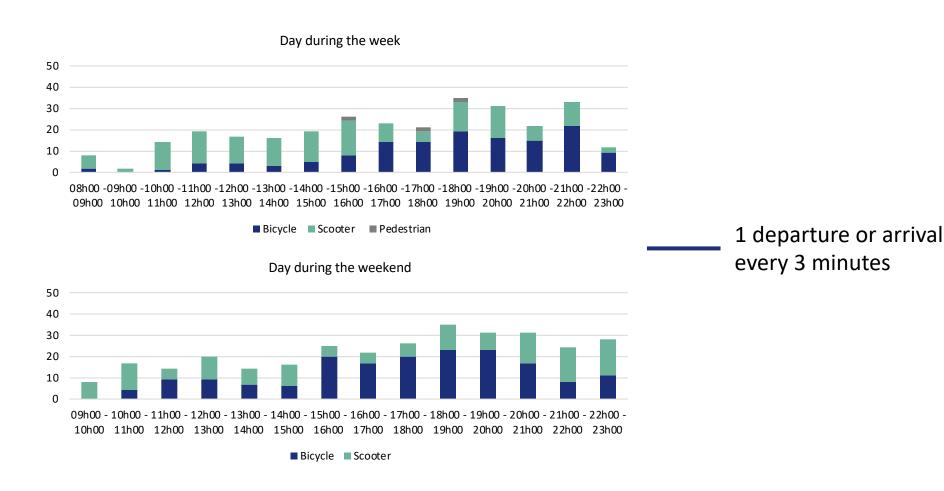
Warestores by Hema Fresh

# Dark stores of instant grocery delivery start-ups share several characteristics



Frichti in Paris 11

# Transport and land use intensity of dark stores, observations from Getir in Paris 11 (week of the 21st of February 2022)



# Transport and land use intensity of dark stores, observations from Getir in Paris 11 (week of the 21st of February 2022)



Regular supplies in small quantities



About 5 scooters and 7 bicycles occupy the parking spaces

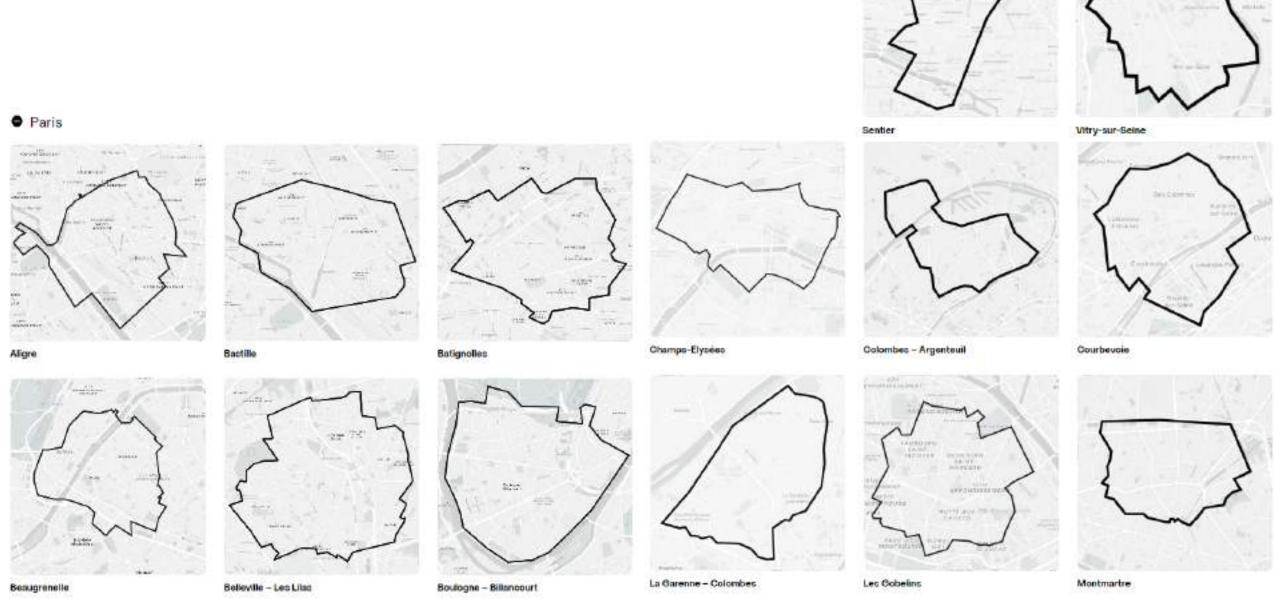


1,4 deliveries per departure during the week and 1,9 during the weekend

# To deliver on their instant delivery promise for urban markets as a whole, dark stores are needed in numbers to succeed



### Example of Gorillas



### **Example of Gorillas**



### **SOME HANDS -FR**

Édition 7 - Mai 2022

#### **Performance**





**69 NPS** Vs. 67 WoW



27.959 Orders

-18% WoW



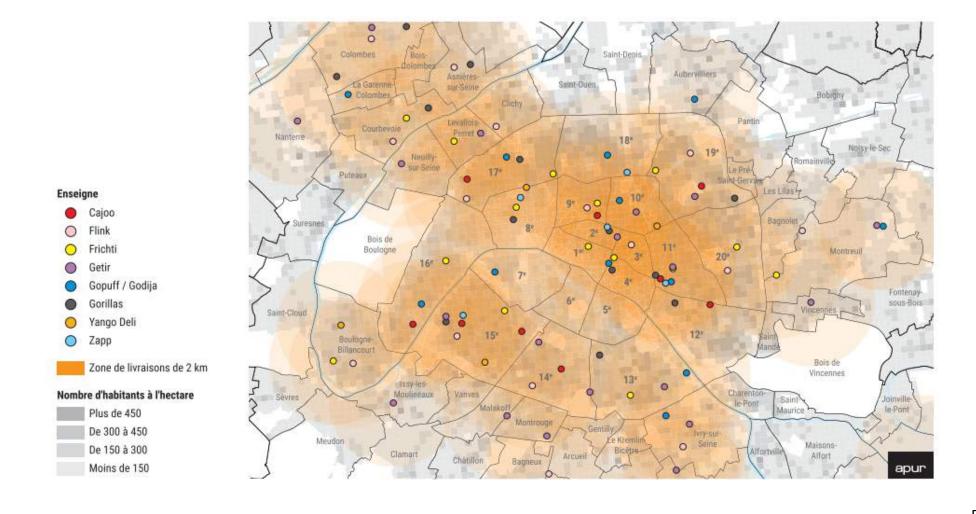




4.6% Tx Incident

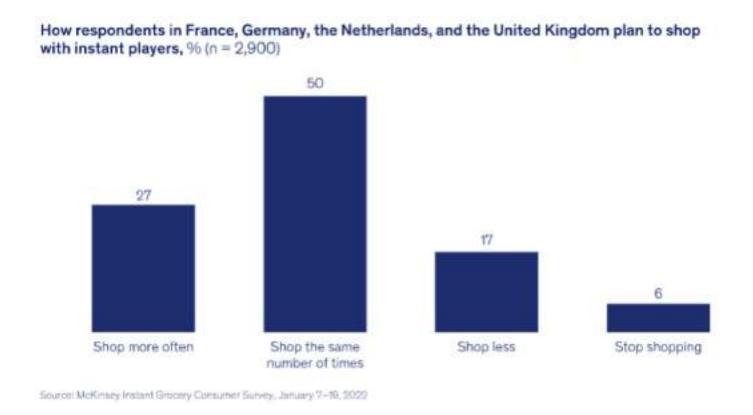
Vs. 4 W17

# 80 dark stores in Paris (Feb 2022), 110 in New York (Feb 2022) and 28 in Amsterdam (Dec 2021)



Reference: Apur, 2022

# High customer acquisition costs add to capital needs: heavy online and offline promotion, prices on par with retail, low delivery cost





# Growing aversion among local residents, authorities and businesses, referring to noise, space, safety and competition concerns



Instagram page in Amsterdam



My Bodega Online initiative in New York



Les #DarkStores (entrepôts de stockage d'aliments) se

multiplient à Paris. Certains ne respectent pas les

Public meeting on reporting unauthorised dark stores in Paris

### Live fast, die young? Instant grocery delivery strategies moving forward







**Partnerships** 



Services

Dark stores & quick commerce, an illustration of three existing trends in urban logistics

### 1 - Service differentiation and specialisation



#### Vandaag Bezorgd

E IL90 (bringmans by Solect)

Vandaag besteld, vandaag in huls. Van maandag t/m vrijdeg voor 13:30 uur besteld, deze/fde deg (thuis)bezorgd tussen 18:00 en 22:00 uur.\*



#### Avondbezorging

6 1.99 (Select)

Van maandag tim vrijdag bezorgen we tilssen 18:00 en 22:00 sur, els je de deg ervoor bestelt,\*



#### Zondagbezorging

8 3,00 Schoprogen in Scient)

Bezorgen op zondag. Komt zondag jou het beste uit. om je pakketje in ontvangat te nemen? Dat kan ook." Ook op zaterdag besteld, zondag in huis





#### Vandaag ophalen

6 1.95 (binapiepouli) Select)

Bestel je op werkdagen vóór 12:00 uur? Dan kon je het pakketje diezelfde middag ophalen bij een balloom afhealount by Albert Helin vanaf 17:00 uur.



#### Kies de dag die jou uitkomt

Werp een blik op je kalender. Laat je bestelling bezorgen op de datum die jou het beste uitkomt."



#### 1 - Service differentiation and specialisation

#### WONKL



#### Payment & shipping

Standard Home Delivery (€5/Free over €50):

We will deliver your purchase within 2-3 working days after receiving your order confirmation. Standard delivery is free for orders over €50. During high season and Sale, delivery might take a little longer.

Standard Pick-up Location (€3/Free over €50):

We will deliver your purchase within 2-3 working days after receiving your order confirmation. Standard delivery is free for orders over €50. During high season and Sale, delivery might take a little

longer.

Climate-smart Standard Home Delivery Stuart (€5):

For a more sustainable delivery, we are happy to offer climate-smart transport options. We will deliver your purchase within 2-3 working days after receiving your order confirmation. Enter your zip code at checkout to see if your region is available for this service.

Express Home Delivery (€10, 1-2 working days):

We also offer Express delivery (excl. Saturday, Sunday and Bank Holidays) for orders placed before 7:30 pm Monday to Friday. Orders placed after this will be delivered within two days (excl. Saturday, Sunday and Bank Holidays). During high season and Sale, Next day delivery might be unavailable.

Next Day Home Delivery Paris (€5, 1 working day, delivery time 4:00-22:00 CET):

To Paris we offer a next day delivery for orders placed before midnight. During high season and Sale, express delivery might be unavailable.

Please note: expected shipping times, including any delays or deviations, will be shown at the check-out.

### 2 - Modal shifts in the last mile and last feet



















### 3 - Proximity logistics real estate



Design for a new multi-story distribution center in Brooklyn



Micro-hub constructed under the ring road in Paris

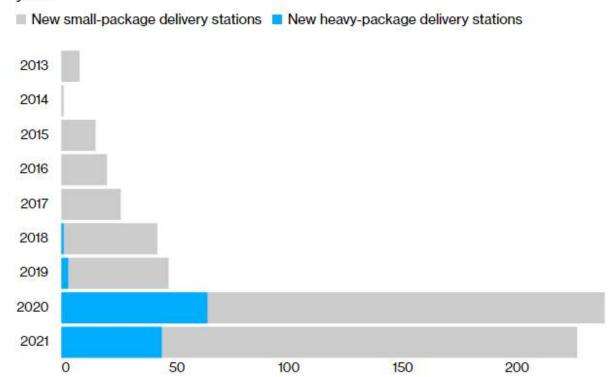


Model view of West Truck Terminal redevelopment in Seoul

### 3 - Proximity logistics real estate

#### **Continued Expansion**

Amazon has ramped up construction of its delivery stations in the past two years



Source: MWPVL International Inc.

#### THE WALL STREET JOURNAL

Inglish Spition # Print Spition | Video | Podosato | Letect Heedline:

Home World U.S. Politics Economy Business Tech Markets Opinion Books & Arts Real Estate Life & World W.S.J. Magazine Sports

#### BUSINESS

#### IKEA to Open More Downtown Stores, Retool Big-Box Sites for Online Orders

Furniture giant aims to accelerate expansion with \$3.2 billion investment in stores



An IKEA furniture store in Spain. The company is retooling its out-of-town locations as hubs for distributing online orders. PHOTO: XAVI LOPEZ/SOPA IMAGES/LIGHTROCKET/GETTY IMAGES

By <u>Saabira Chaudhuri</u> (Folos: Mey 9 2022 221 em FT

### 3 - Proximity logistics real estate



Shared storage space and micro-hub geared towards the needs of the neighbourhood's businesses and residents

### Conclusion

### Policy responses & recommendations

- Providing and enforcing adequate space for loading and unloading activities;
- Identifying appropriate locations for goods transport-intensive urban facilities and for storage of non-perishable goods;
- Imposing and facilitating low emission and low noise regulations for goods vehicles;
- Providing adequate charging infrastructure for goods vehicles;
- Controlling and enforcing fair working conditions;
- Facilitating and enforcing safe circulation of goods vehicles;
- Etc.

