

# why online shopping can be, but not necessarily is, more sustainable than physical shopping

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# unprecedented parcel volumes

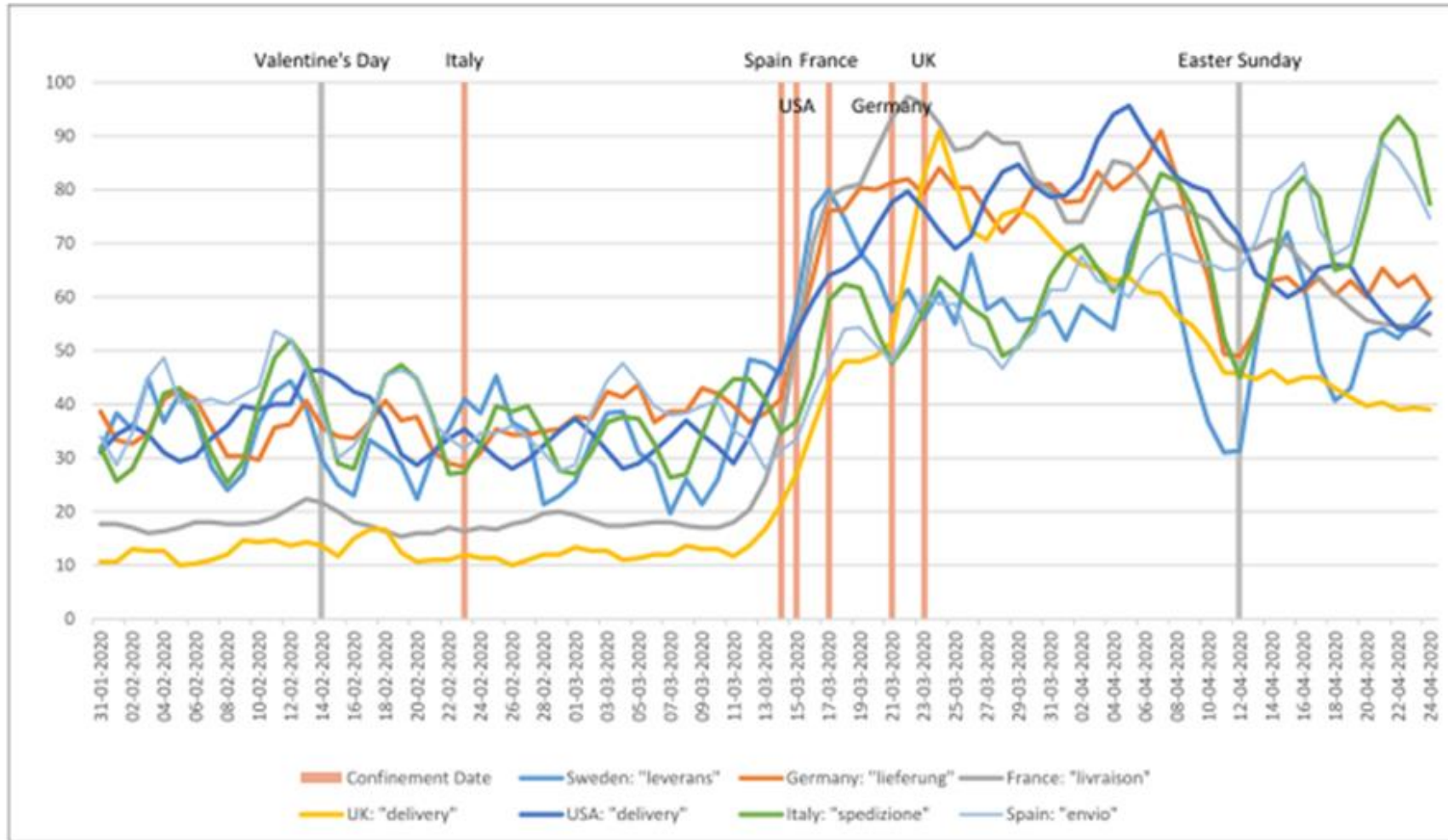


2017  
150.000 parcels per day

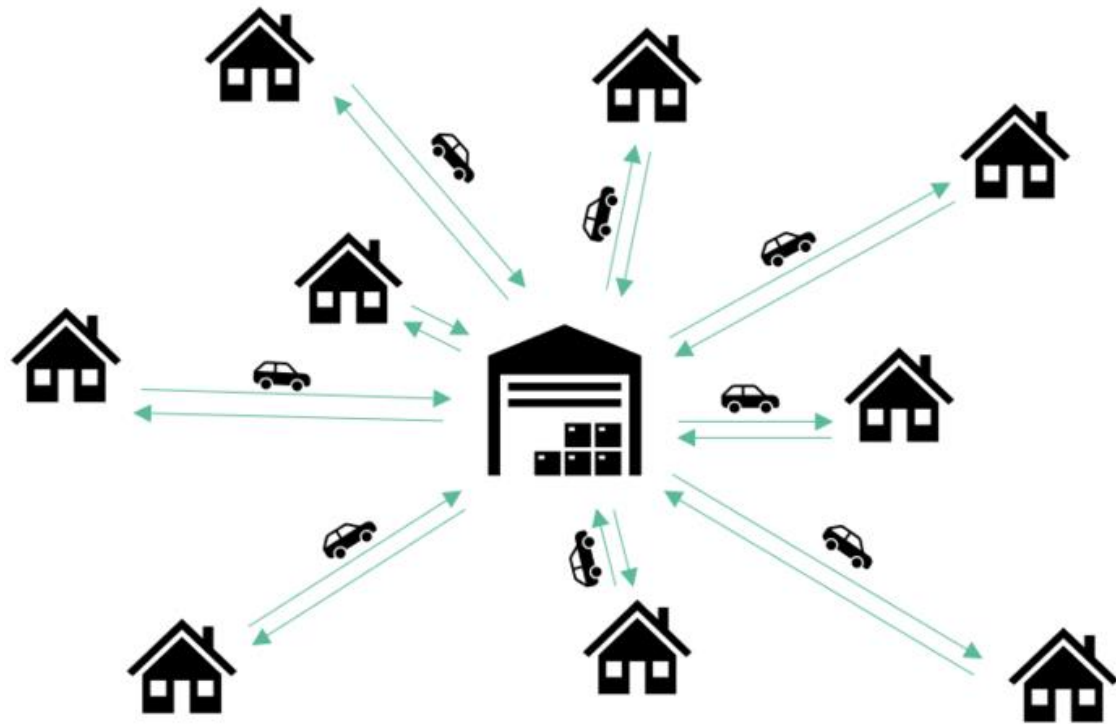


2020  
1.300.000 parcels per day

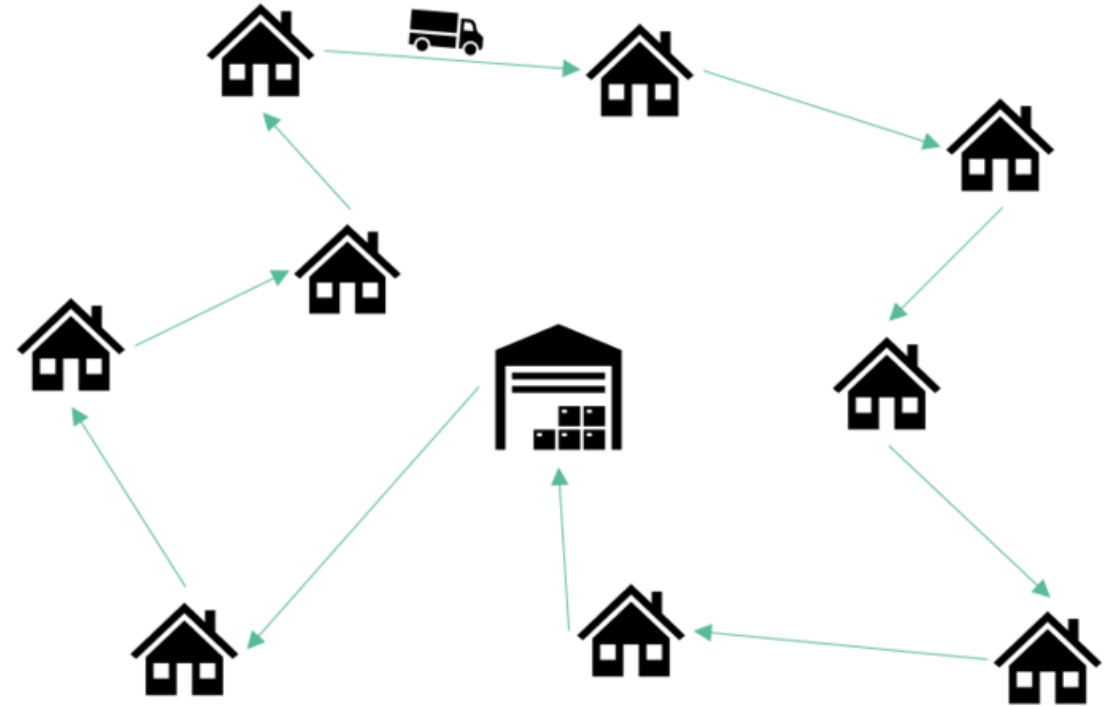
# “the quickening”



the more sustainable way to shop

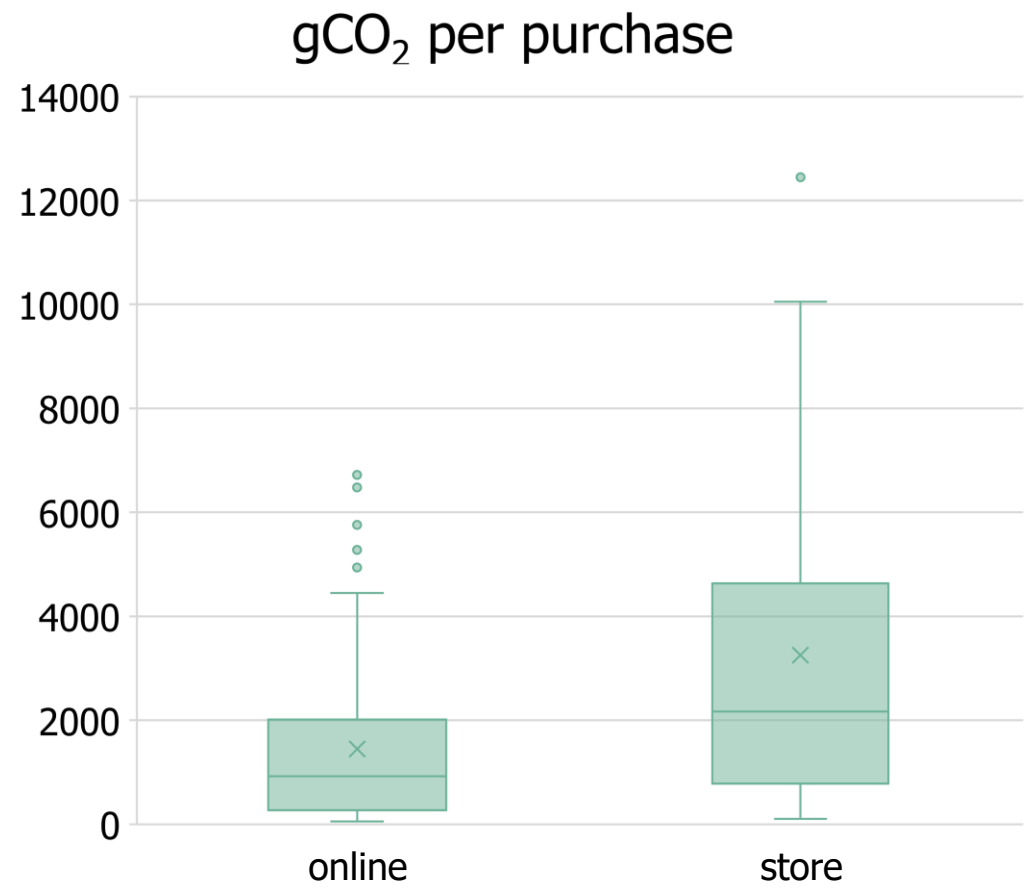


physical shopping



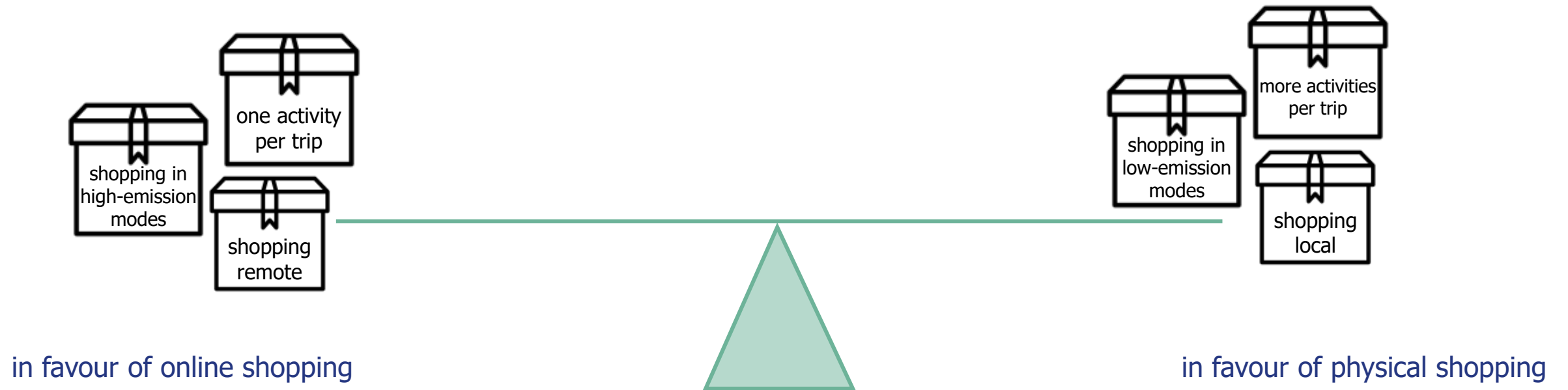
online shopping

# substitution as basic hypothesis



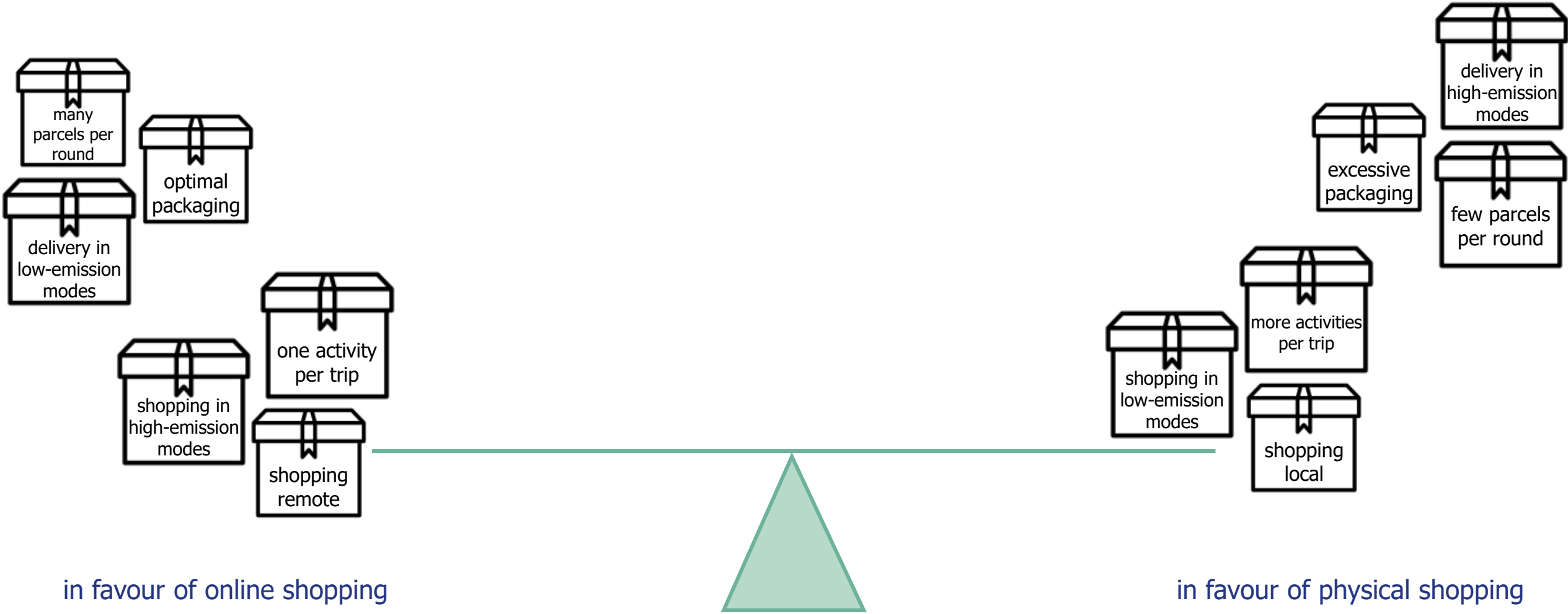
# modelling shopping patterns...

## personal mobility



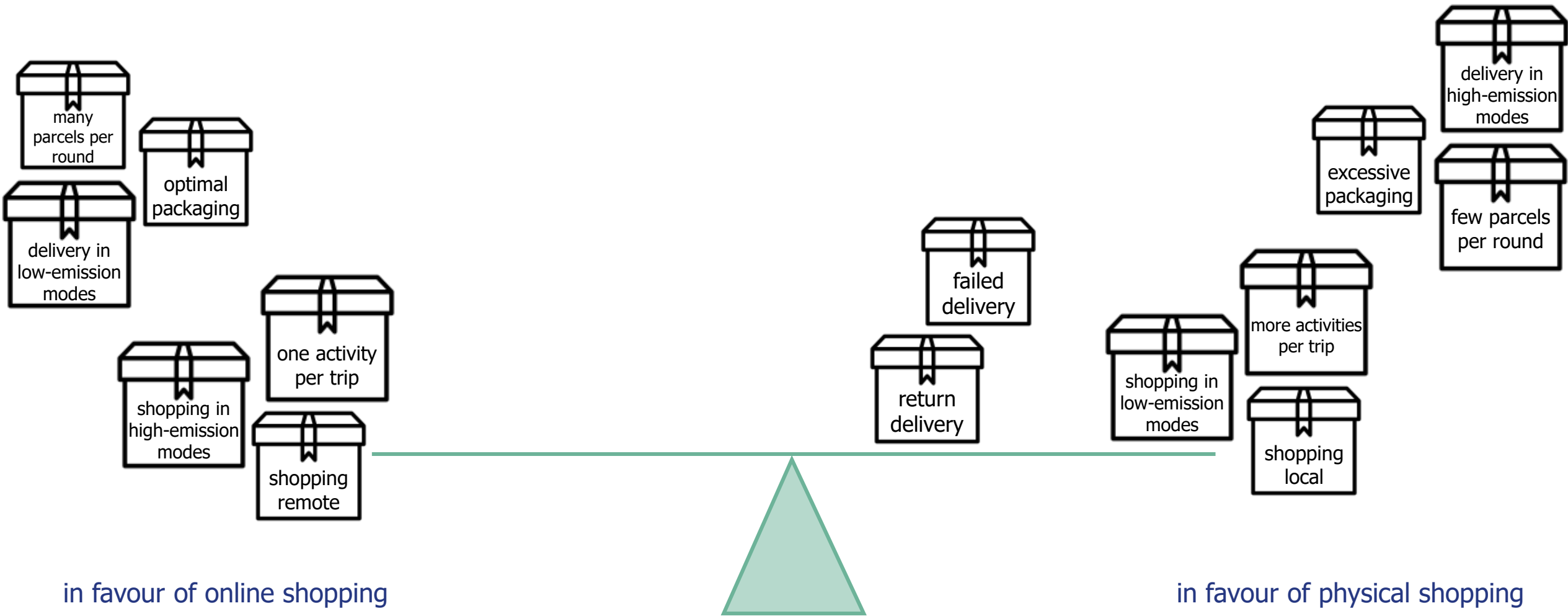
# modelling shopping patterns...

## goods mobility



# modelling shopping patterns...

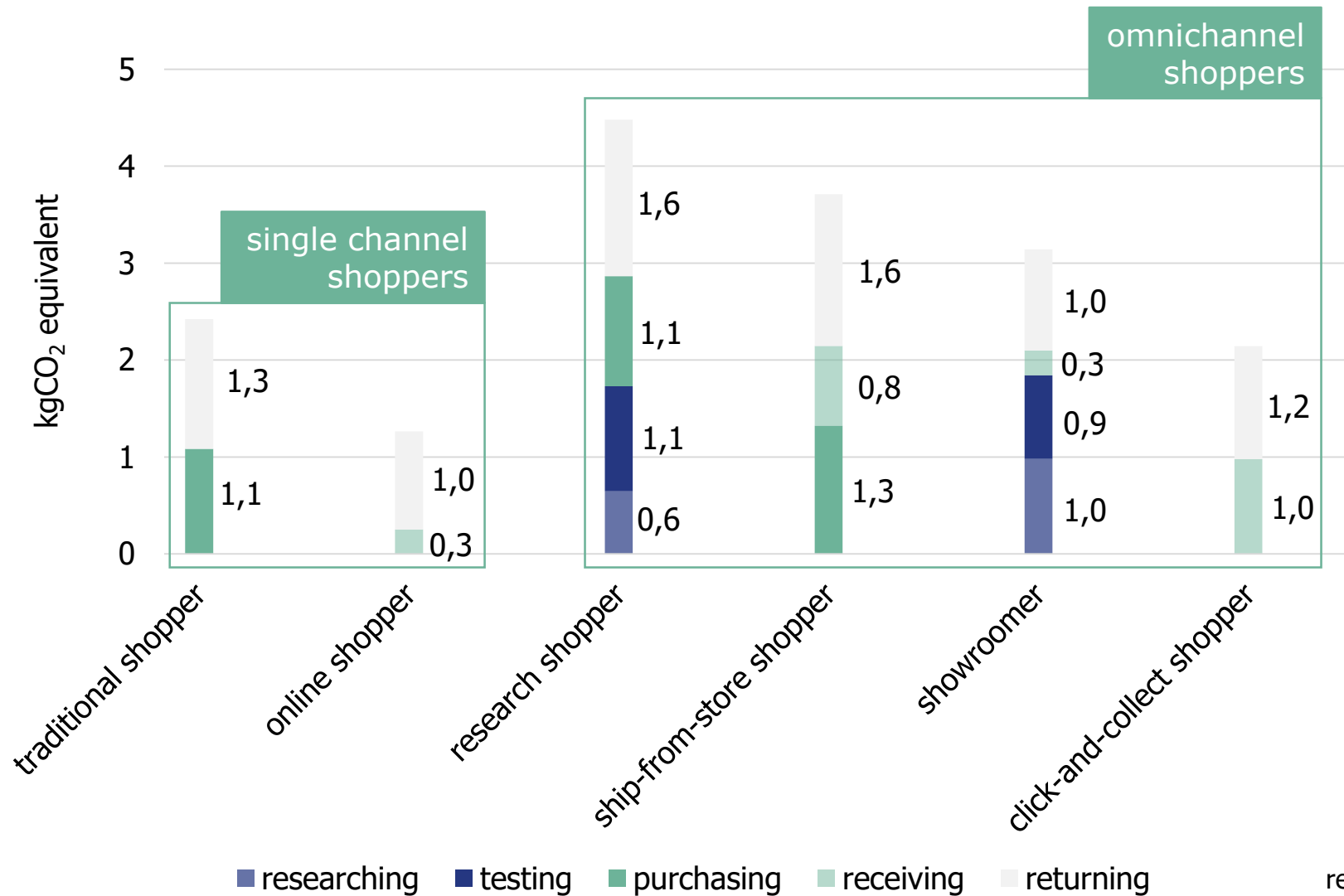
personal + goods mobility





# challenged by consumer behaviour

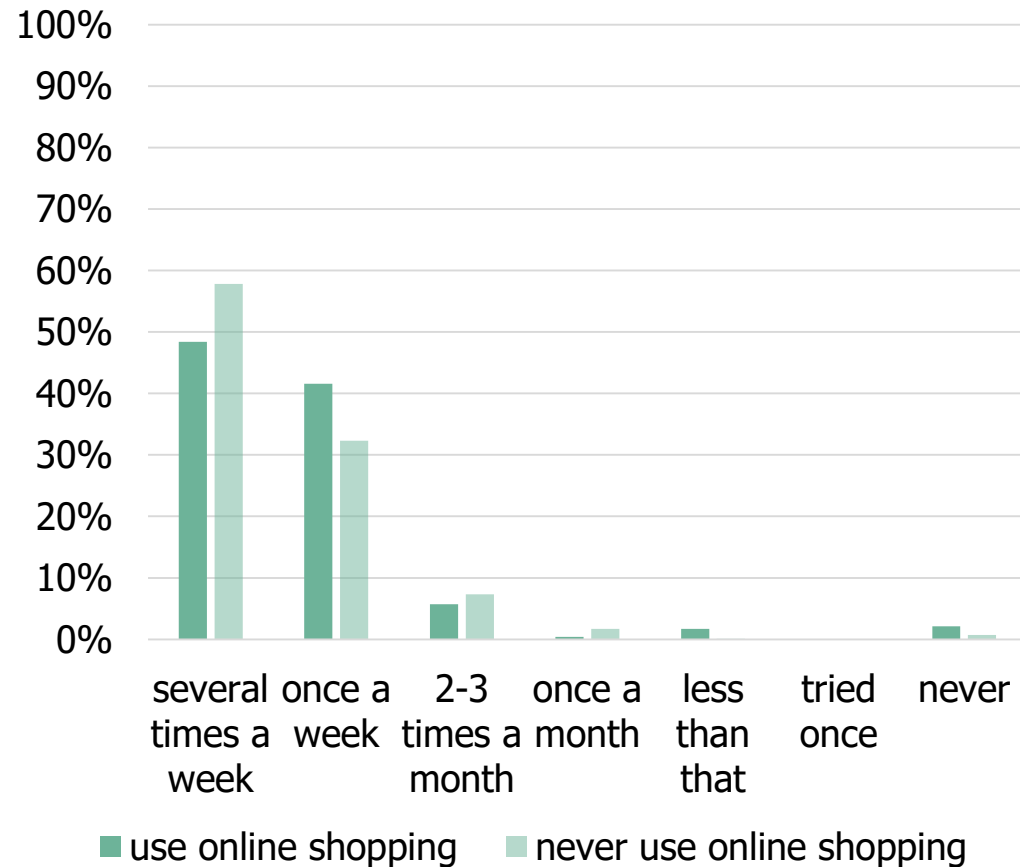
## 1 omnichannel purchases



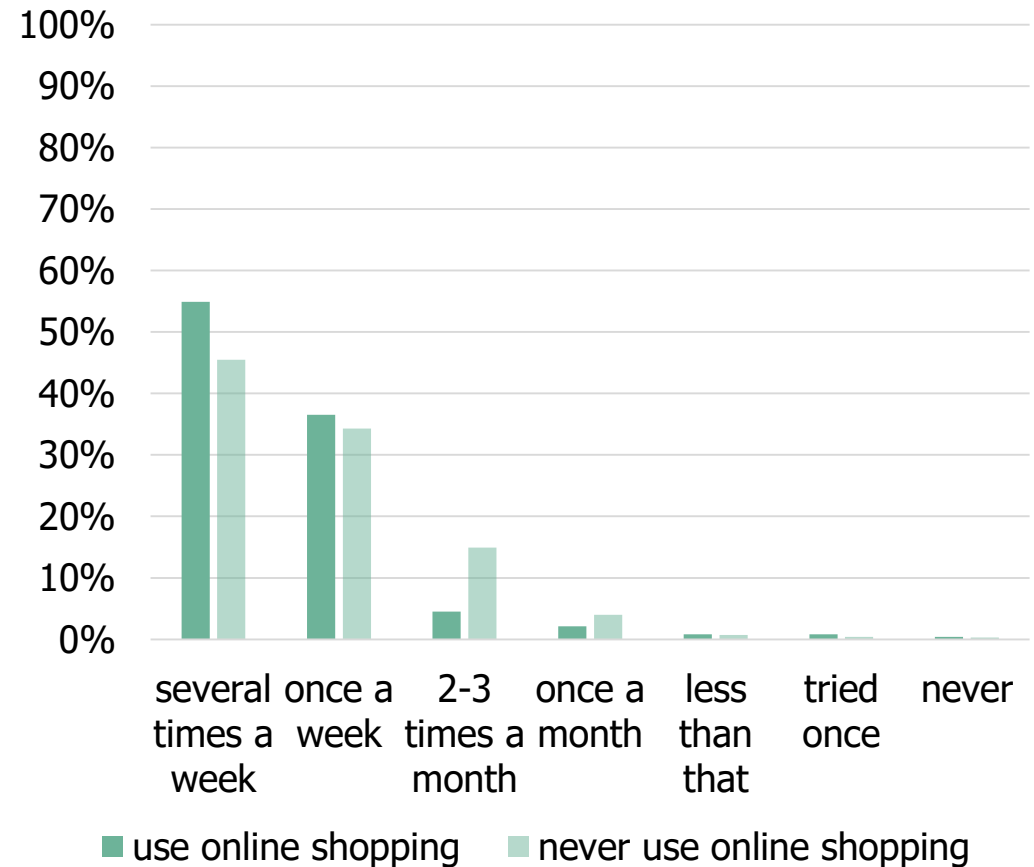
# challenged by consumer behaviour

## 2 fragmented purchases

### Parisians

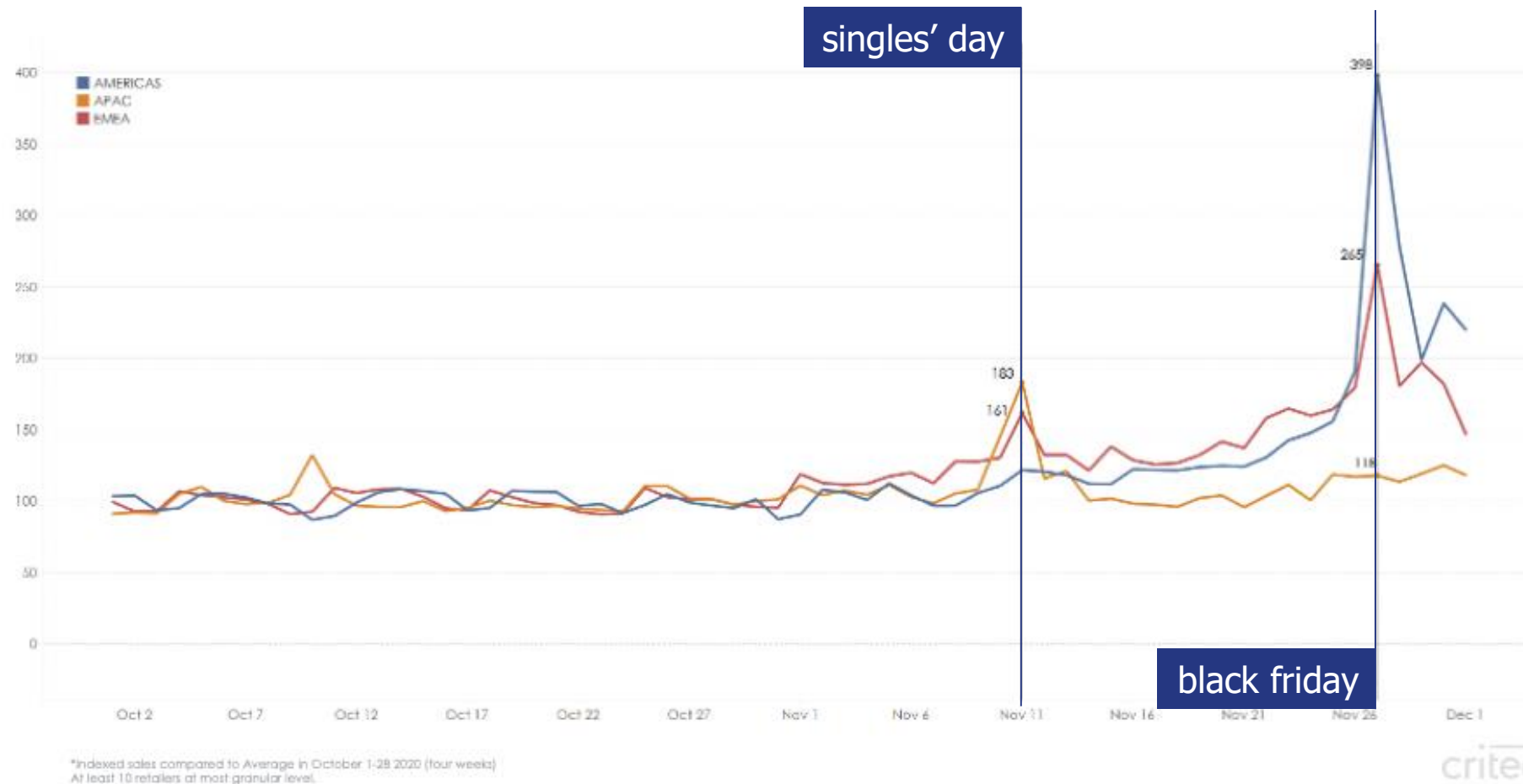


### New Yorkers



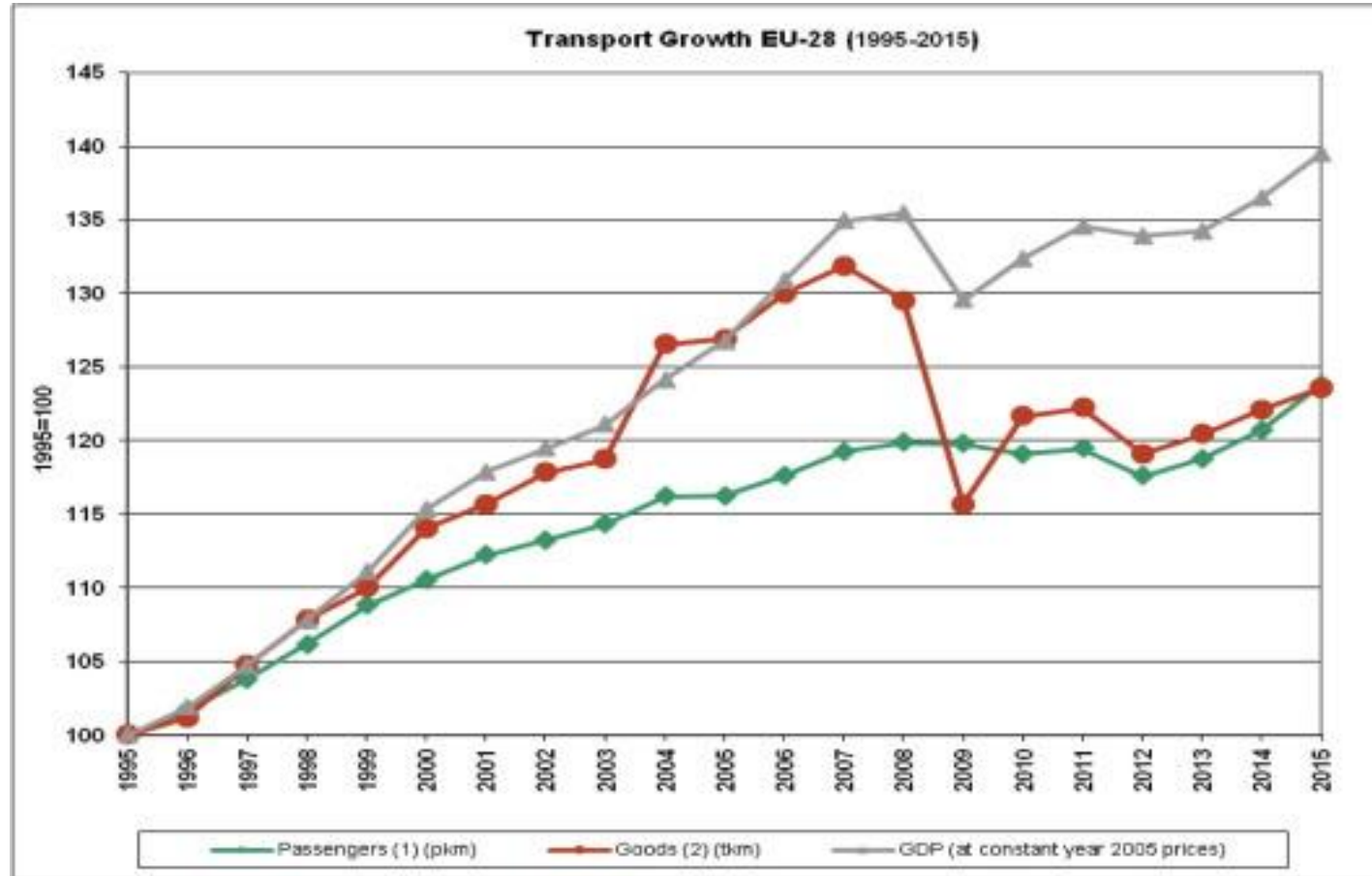
# challenged by consumer behaviour

## 3 increased purchases



challenged by consumer behaviour


4 alternative activities



personal mobility

goods mobility

an offer you can hardly refuse




**packaly**  
60-Minutes & Evening delivery



**amazonPrime**  
**FREE Same-Day Delivery**  
[amazon.com/sameday](https://amazon.com/sameday)



**Free. Easy. Returns.**



**Holiday gifts, just in time.**

See the latest dates to order your holiday gifts with free shipping. Find specific delivery dates based on your selections and location in checkout. In most metros, get in-stock items by 2-hour delivery for \$5 or Apple Pickup.

# the virtual transforms the physical

online business models

mobility lifestyles

Technological innovations  
Infrastructure investment  
Mobility policy

Transport system  
(networks)

Accessibility

Activities  
(travel behaviour)

Socio-demographic,  
economic and cultural  
factors

Land use  
(locations)

Regional demand  
Land availability  
Area attractiveness  
Spatial policy

distribution structure and facilities

physical store offer and locations

## good practices in e-commerce



### at check-out

- provide (a) delivery option(s) with a lower environmental impact
- differentiate delivery options in price according to environmental impact
- inform and raise awareness about the environmental impact of delivery
- explore the potential of crowdsourced delivery and collection

## good practices in e-commerce



### in the distribution centre

- optimise packaging and reduce waste
- collaborate to optimise vehicle load rates
- clarify origin destination(s)
- consider alternative origin and destination locations to optimise delivery routes



good practices in e-commerce



on the road

- integrate low or zero emission vehicle types or modes
- optimise delivery information and communication
- explore the potential of autonomous delivery

## good practices in e-commerce

### upon arrival

- consider failed deliveries to optimise delivery information and communication
- consider collection trips to optimise the delivery options
- consider returns to optimise retail processes and packaging



visit <https://www.ecommercemobilities.com/>

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& let's stay in touch

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