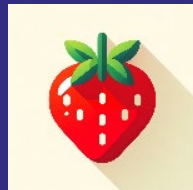


27 juin 2025

Do Shopping Trips Fit the 15-Minute City Ideal?

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ANR-FRESH Project

FRESH Project

- European research project FRESH/DUT (Driving Urban Transition)
- The project looks at **shopping and logistics within 'the 15-minute cities'**
- Partners: TU Dortmund (Germany), Gustav Eiffel University (France), NTNU (Norway), and ETH Zurich (Switzerland)

Ongoing activities:

- Report: State-of-the-art review of e-commerce last mile delivery solutions and policies
- Multicountry comparison of shopping trips (today's presentation)
- Online-Survey on shopping and travel behavior
- Common Vocabulary (lexicon) development

Proximity in urban planning – « the 15-minute city »

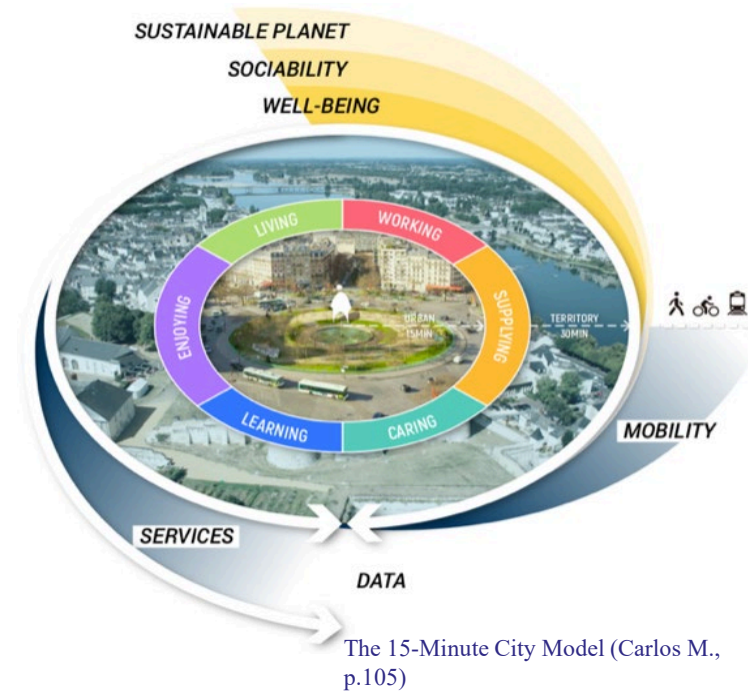
The 15-minute city concept aims to achieve essential services to be within a short distance, promoting sustainable, walkable, and accessible neighborhoods

Core principles :-

- Proximity to essential services
- Diversity of land uses and amenities
- Density (population & service concentration)
- Digitalization/local platforms



dutpartnership.eu



Do current shopping trip behaviors reflect the 15-minute city principles?

Data & Methodology

Data Sources:

- National travel surveys of 4 European countries – France, Germany, Norway and Switzerland
- For France – two survey waves of ENTID 2008 & EMP 2019 (before Covid-19)

Scope: trend analysis on shopping vs non-shopping trips

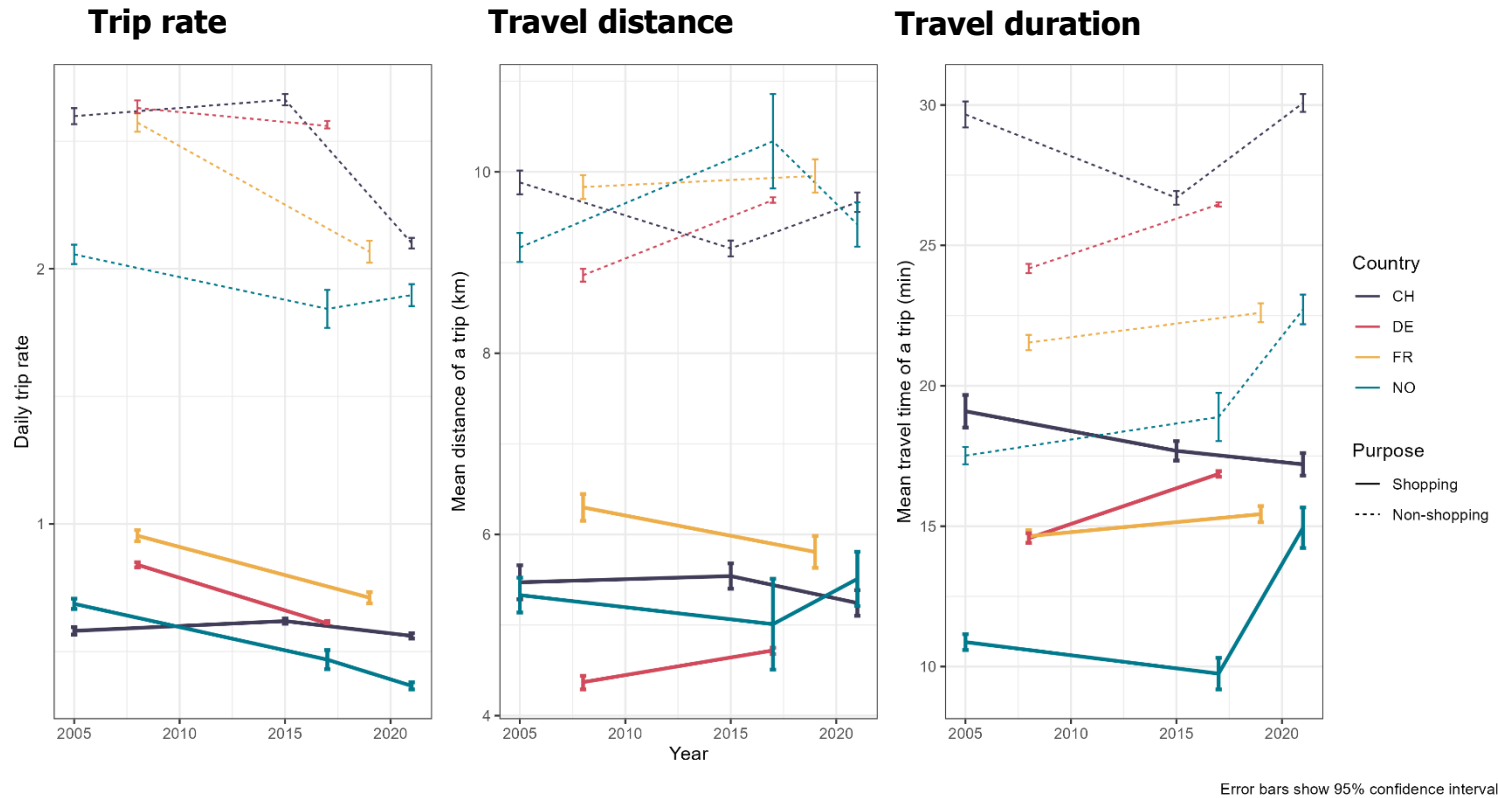
Variables analyzed: stratifications

- Single - gender, age group, household income/type, weekday, time of day, location type (urban, suburban, rural)
- Double – location(urbanization) type * (Gender, Age, household income/type)

Key Metrics:

- Share of shopping and non-shopping trips
- Trip rate per person/day
- Travel distance & time
- Modal share/use

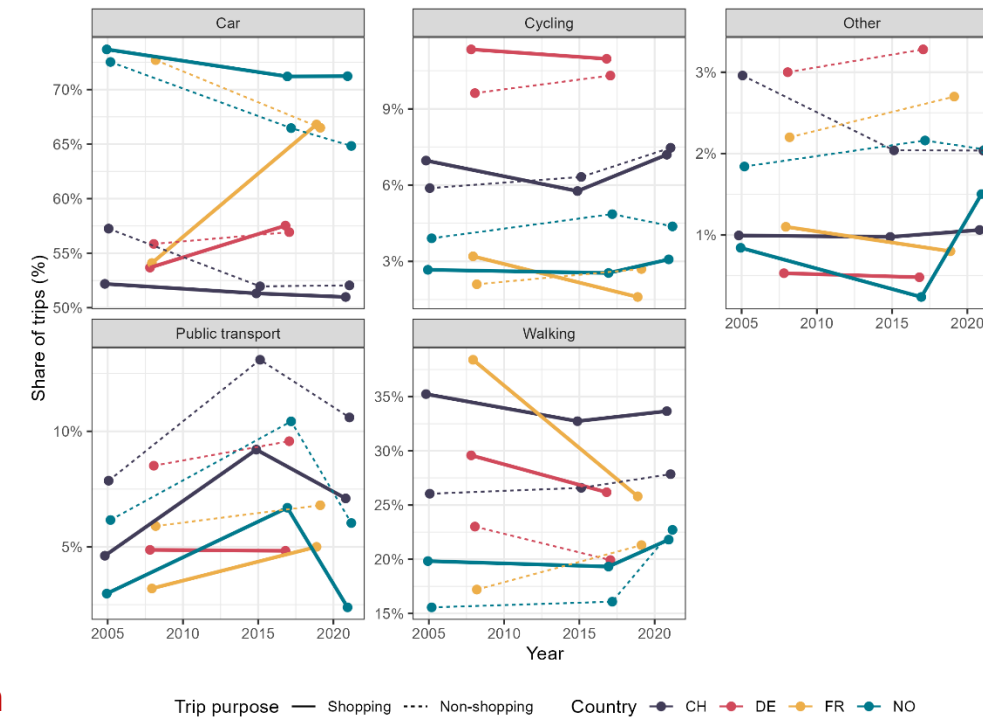
Results: Overall Trip Patterns (shopping vs non-shopping)



FRANCE: - Share of Shopping trips (%)

- 2008 – 27%
- 2019 – 25.6%

Modal share



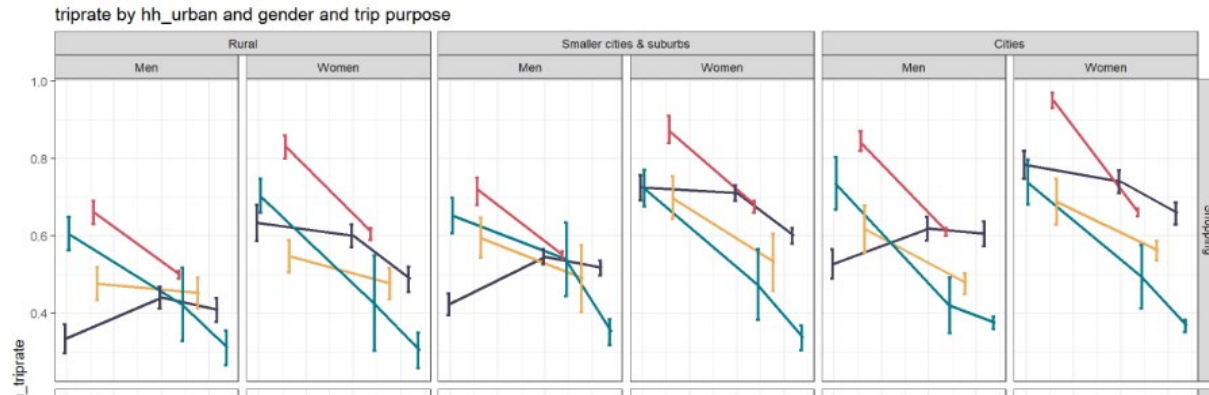
FRANCE: highlights of shipping trips

- Highest share of shopping trips and trip rate with shopping distance declined, whereas travel distance and duration per trip increases
- Longer trips (distance) than proximity and travel duration around 15-min, but by which mode?
- Car is the main mode (>65%) and increasing, but active modes (walking and cycling) and public transport has less share

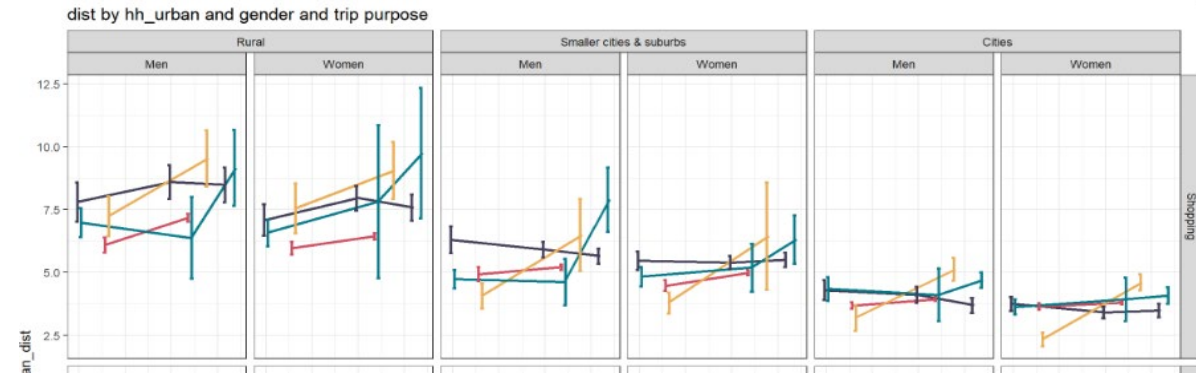
Stratified results (Urban Type × Gender)

Trip purpose — Shopping — Non-shopping Country — CH — DE — FR — NO

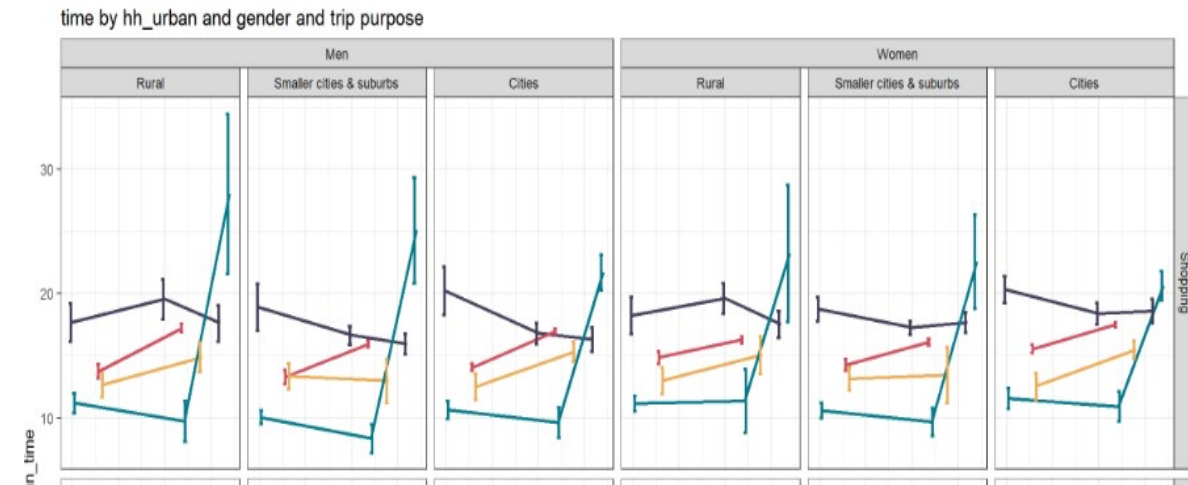
Trip rate



Travel distance



Travel duration



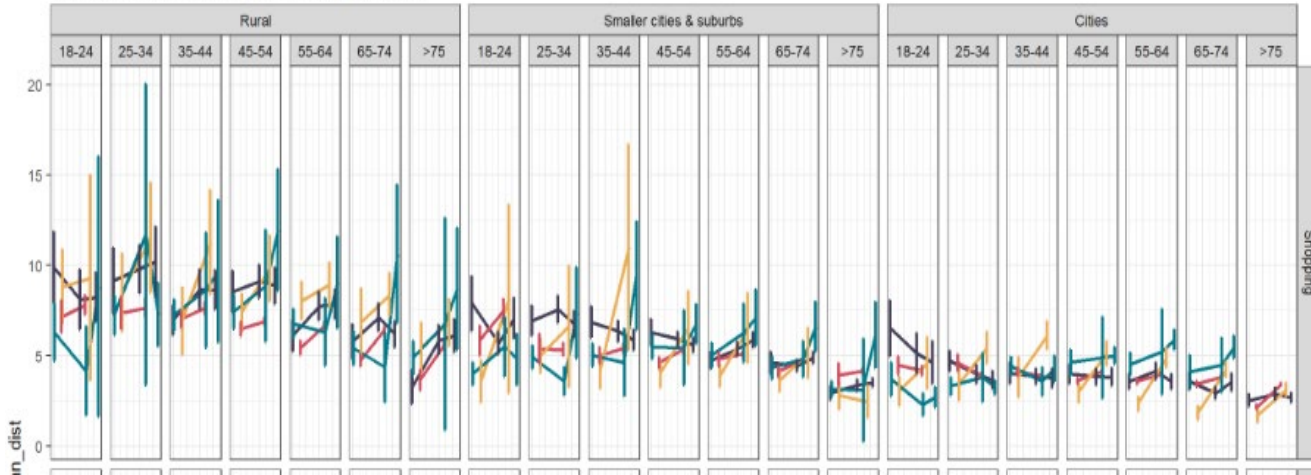
Highlights (France):

- Urban-women has highest shopping trip rate, but travel less distance
- Rural-women travel the furthest for shopping
- Shopping similarly take around 15-minutes for both men and women regardless of their location, but by which mode?

Stratified Insights (Urban Type × age)

Travel distance

dist by hh_urban and age and trip purpose



Highlights (France):

- Older age-groups (>65) live in urban area travels the shortest distance for shopping
- Similar duration for shopping across age groups (+15 minutes), **but by which mode?**

Duration

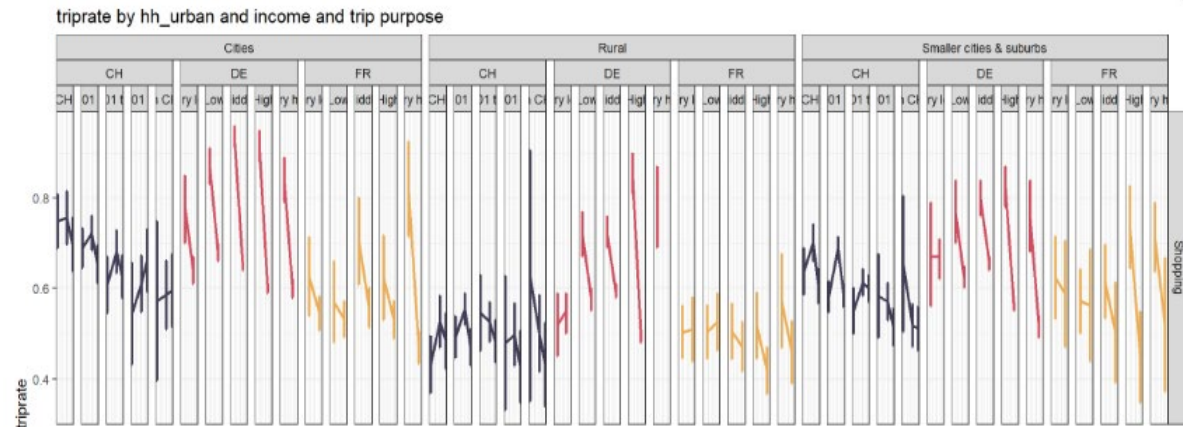
time by hh_urban and age and trip purpose



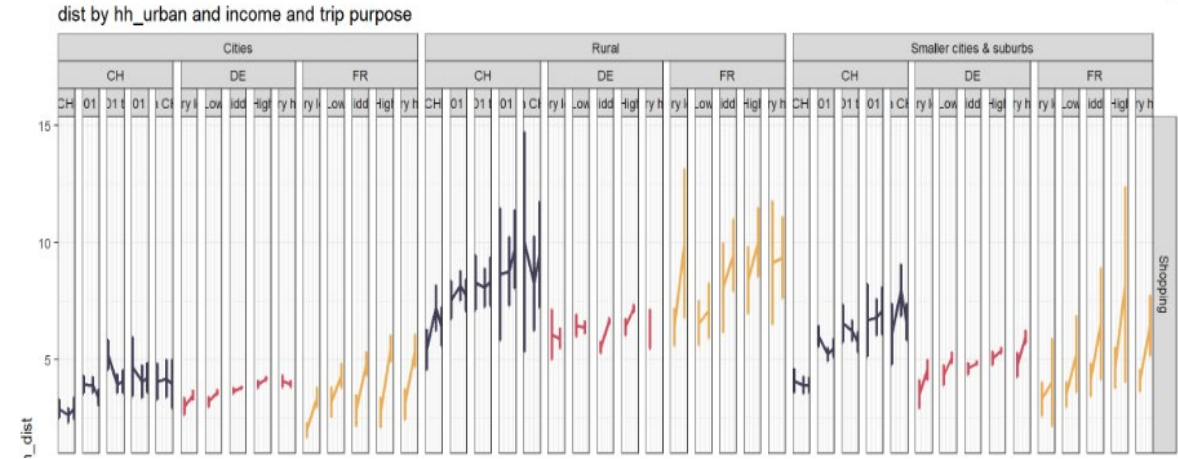
Stratified Insights (Urban Type × Income)

Trip purpose — Shopping — Non-shopping Country — CH — DE — FR — NO

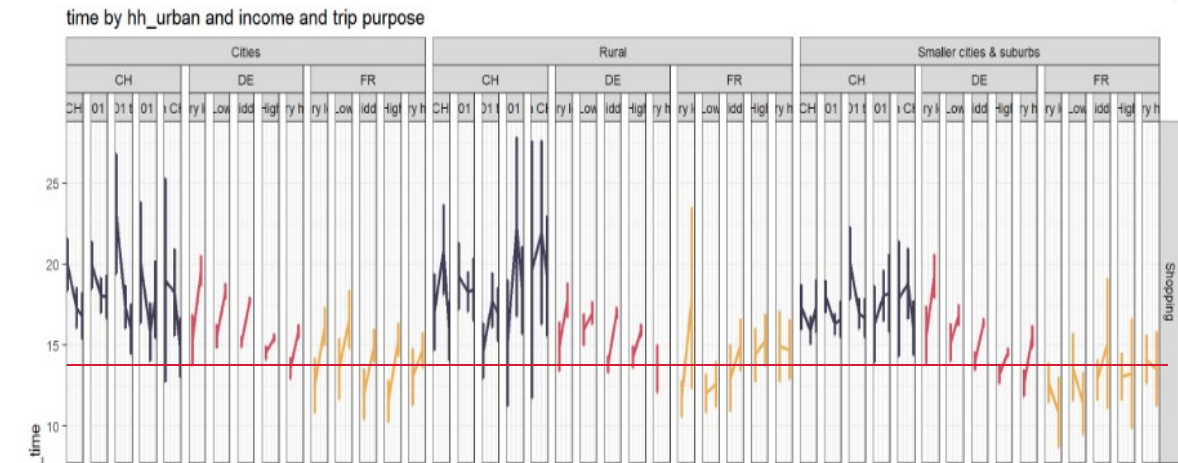
Trip rate



Travel distance



Duration



Highlights (France):

- High income-urban residents shop most frequently but travel shortest
- High income-rural residents shop least frequently but travel the furthest distance and takes relatively longer travel duration
- Similar duration for shopping across both location and income groups (+15 minutes), but by which mode?

Conclusion and future outlook

Summary of Key Findings

- Do shopping trips fit the 15-minute city ideal? → It depends where we look at
 - Shorter trips and higher active mode share in urban areas
 - Gender and age indicate large variation in shopping trips (travel distance, duration and mode-use)
 - Persistent inequalities by income and location (urban type)
 - Proximity not uniformly achieved, especially outside cities

Implication and Next steps

- Urban planning and policy relevance:
 - Role of local commerce and mobility policy
 - Addressing spatial inequality in access to retail
- Link to FRESH next steps:
 - Integration of more suitable e-commerce delivery systems and measures (report)
 - Urban/suburban consumer's behavior in e-commerce vs traditional market (survey)
 - Stakeholders view on freight delivery systems/regulation to enhance more integration (survey)

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