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Mobility of Latvian Population in 2021

OVERVIEW OF THE SURVEY CONDUCTED IN 2021



survey
"Mobility of Latvian population
in 2021"

How mobile are you on a daily basis?



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International Transport Forum

TRANSPORT STATISTICS MEETING

Data Gaps in Transport Policymaking
19/09/2022



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Content

- ✓ General description and methodology
- ✓ Communication
- ✓ Sample
- ✓ Data collection
- ✓ Results
- ✓ Discussion points



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General description

Timeline

February - March, 2020 – Beginning stage

March - January, 2020/2021 – COVID-19

February – August, 2021 – Survey design

September - December, 2021 – Data collection

January - September, 2022 – Data processing, analysis, publication



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	2017	2021
Budget	x €	2x €
Duration (months)	16+2	24+9
Slogan	-	How mobile are you on a daily basis?
Current events	-	Influence of COVID-19?
Sustainable mobility	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Remote work	-	<input checked="" type="checkbox"/>
New modes of transport	-	<input checked="" type="checkbox"/>
Improved methodology	-	<input checked="" type="checkbox"/>
CSB solution for distance travelled	-	<input checked="" type="checkbox"/>



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Mobility survey 2017 vs 2021

2017

11 004
Sample size

1 563 453
Population (15-84)

61.38%
Response rate

6 739
Number of
respondents
78.8%
Share of trip-
makers among
respondents

2021

8 978
Sample size

1 516 653
Population (15-84)

60.44%
Response rate

5 427
Number of
respondents
73.0%
Share of trip-
makers among
respondents



General description

Questionnaire design for 2021

Improved existing questionnaire from 2017

- ✓ New modes of transport (electr. micromobility)
- ✓ Usage of sustainable mobility (public transport, shared mobility...)
- ✓ Possible influence of COVID-19 on mobility habits
- ✓ Distance calculation – new method





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General description

New variables

- ✓ **Vehicle sharing** - short-term vehicle rental, where the rent is determined for minutes / hours or by distance travelled. This category includes service providers such as *CarGuru*, *CityBee*, *Fiqsy*, *Bolt*, etc. (cars, bicycles, electric scooters, etc.)
- ✓ **Ride sharing** - a trip of several persons in one car, by prior agreement in mutual communication by telephone or social networks, as well as in applications adapted to it, etc.

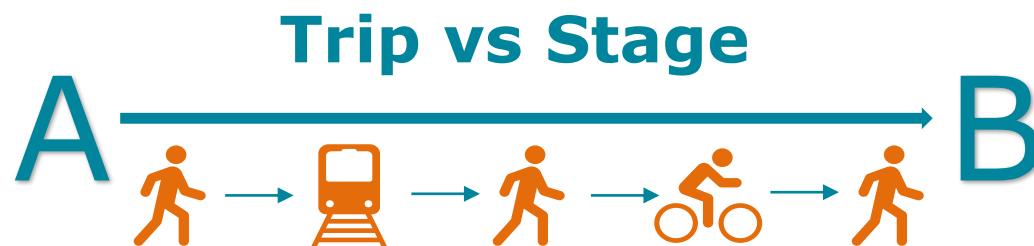


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General description

Methodology and respondent burden

- ✓ **One day of a week** (assigned) by respondent reporting **all trips (+100 metres)** made within a 24-hour period (3:00 AM–2:59 AM)
- ✓ Option **'I don't know'** when asked about the distance of the stage (excl. walking in the beginning and the end of the trip)
- ✓ Distance to be calculated later based on coordinates of the beginning address and destination address





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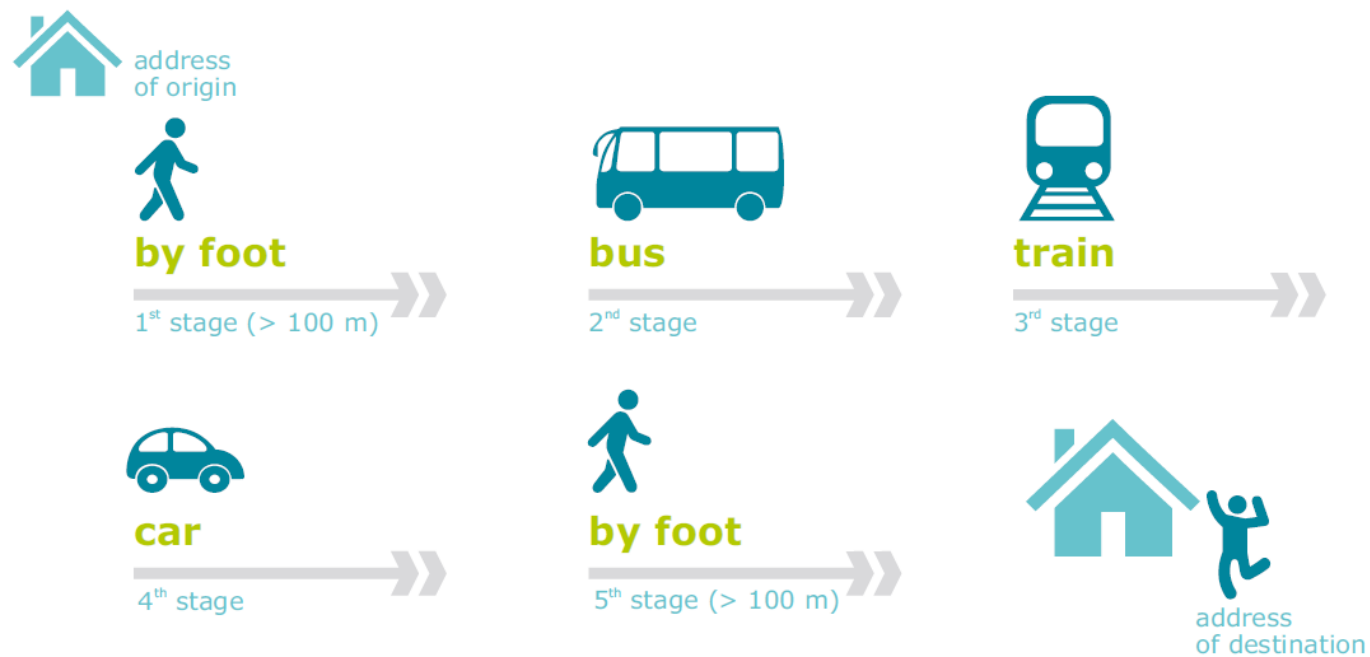
General description

Methodology I

Registration of trip stages

example from the survey

Aizkraukle →→ Rīga





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General description

Methodology II

Number of trips made in the reference day by purpose



work

1th trip



shopping

2nd trip



**return home
(shopping)**

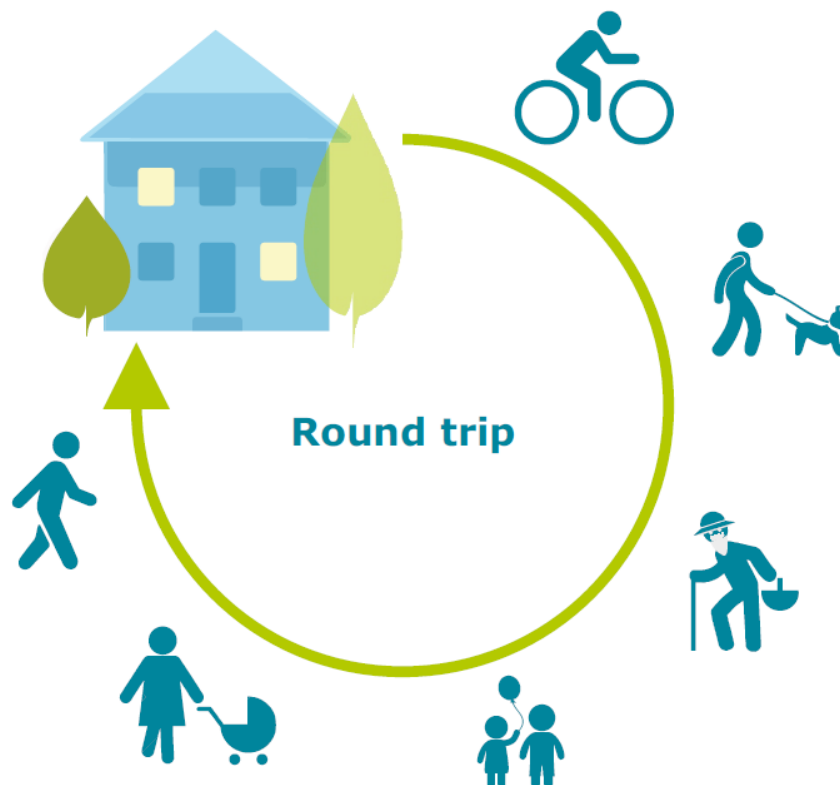
3rd trip



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General description

Methodology III






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Communication Publicity materials

survey
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How mobile are you on a daily basis?



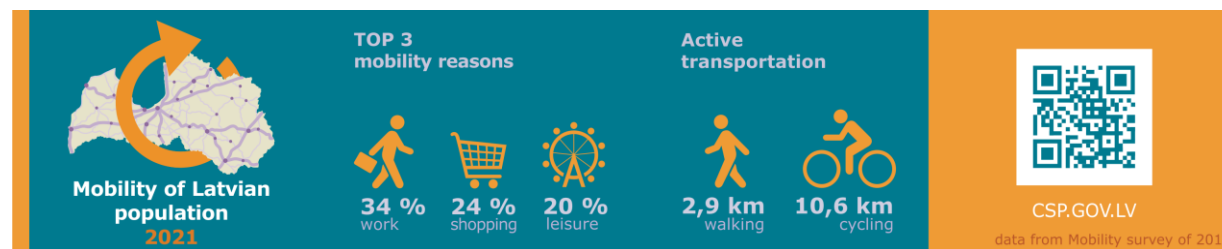
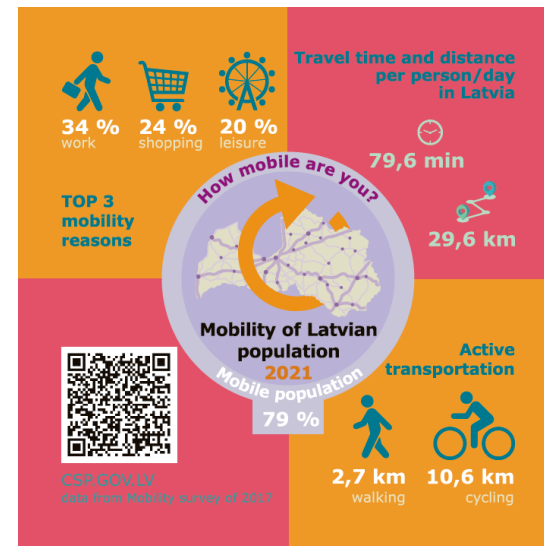

survey
**"Mobility of Latvian population
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How mobile are you on a daily basis?



survey
**"Mobility of Latvian population
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How mobile are you on a daily basis?



Mobility of Latvian population in 2021



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Survey sample

One stage stratified sampling design with a systematic sample selection scheme.

The sampling frame comprises 1 516 653 persons in total.

Complete sample: 11 000

Main sample: 8 400

Additional sample: 2 600

Age group: all residents of Latvia **aged 15–84 (incl.)** and living in private households at the survey starting date (on 01.09.2021)

Adaptive data collection:

- ✓ Additional sample from three regions
- ✓ 10 types of weights calculated (the best option to be used for collected data)



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Data collection

CAWI – 26.08. – 26.09.21

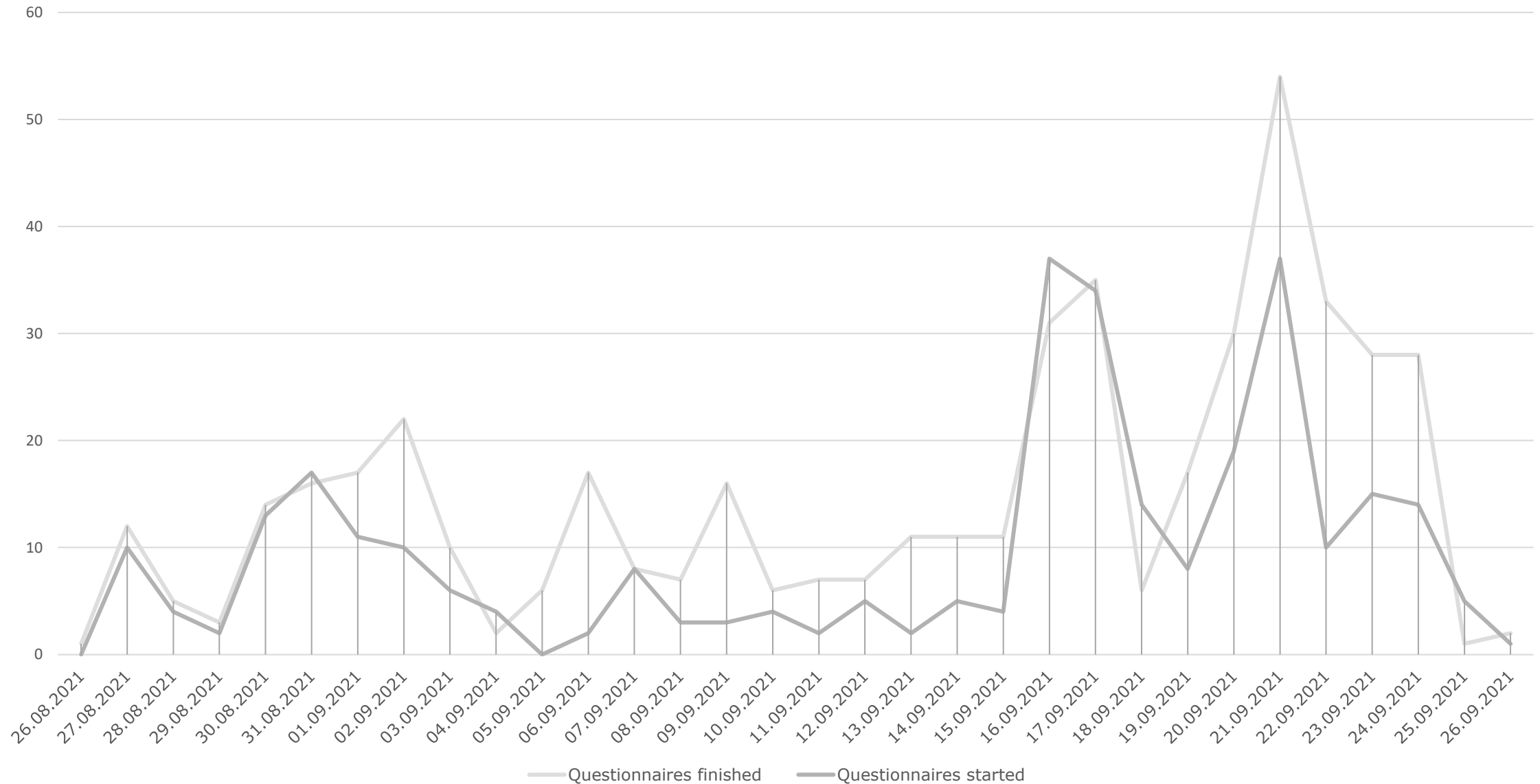
CATI – 27.09 – 15.12.21

CAPI – not conducted because of COVID-19 restrictions in Latvia (CAPI interviewers used to conduct CATI interviews)

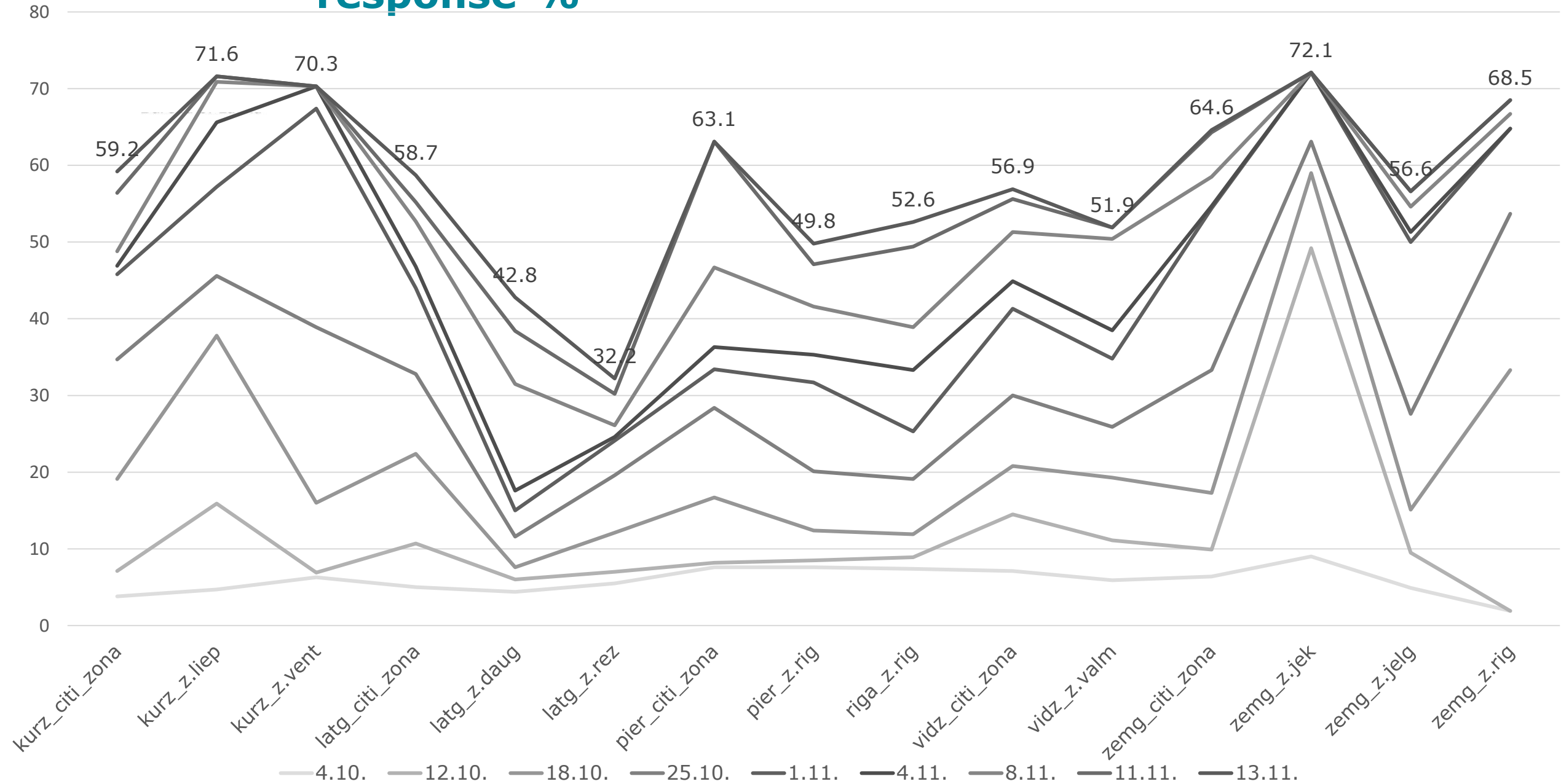


Three regions **added** from **additional sample** – decision made on **13.11.2021**. (578 respondents added)

CAWI data collection (26.08. – 26.09.21)



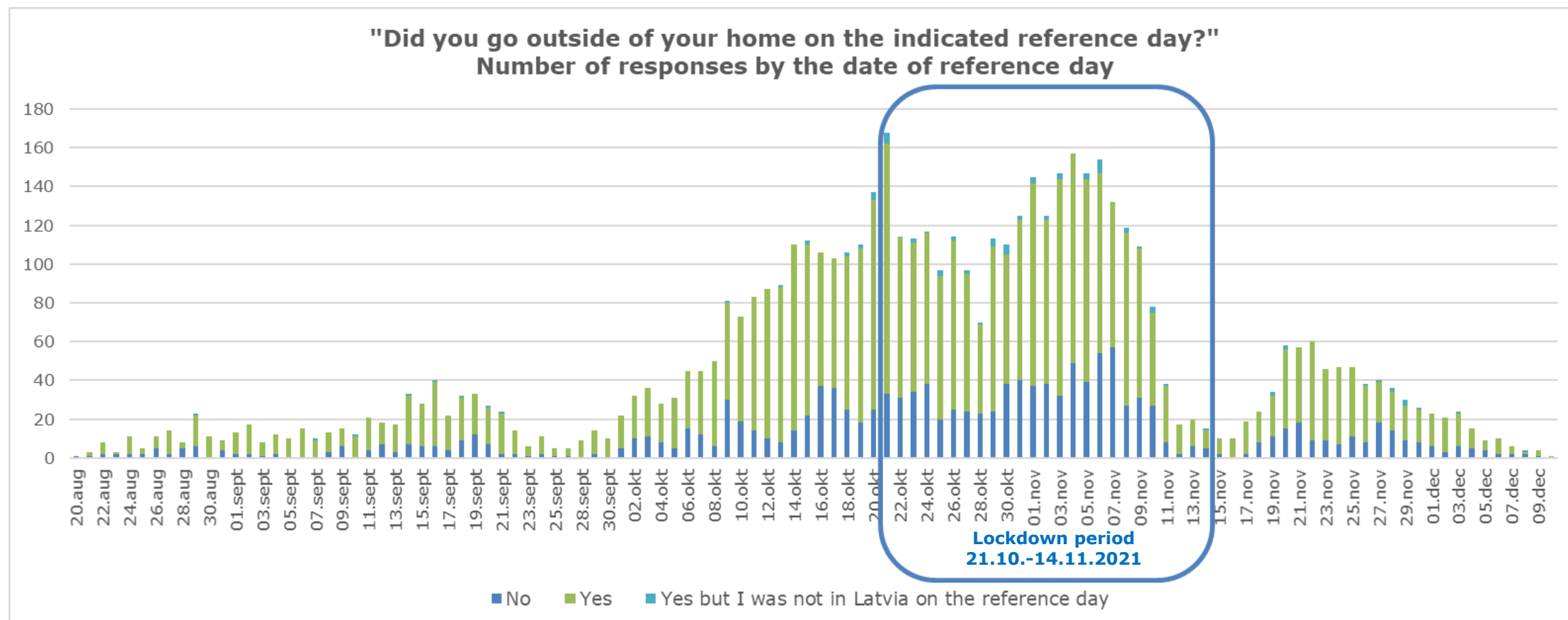
CATI data collection by region (4.10. – 13.11.) – response %





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Data collection by the date of the reference day





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Unpredicted issues

COVID-19 restrictions in Latvia

Limited mobility in **lockdown period**: 21.10. – 14.11.2021.

- ✓ Remote work
- ✓ Remote schooling
- ✓ Shops, cinemas, theaters, restaurants, etc. **closed**
- ✓ No public gatherings
- ✓ Car occupancy: maximum 2 people from different households
- ✓ Curfew: every day 20.00 – 5.00



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Distance calculation post data collection

- Maps provided by The **Latvian Geospatial Information Agency** used to calculate distances between two destinations;
- Addresses collected during the survey transformed into coordinates;
- Distance calculated as optimal, taking into account road classification and coverage, but one-way streets, speed restrictions and turn restrictions are not taken into account, as the topographic map does not contain such data;
- Distance on foot and by car.





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Urban and short distance mobility (<300Km)

Share of trip-makers among respondents

Reasons for not going out on the reference day

Mobility of Latvian population in 2021



73 %

had at least one trip per day outside home

Reasons for not going out on the reference day



30 %

illness or
feeling unwell



30 %

other



21 %

weekend,
day off



11 %

remote
work



8 %

safety
reasons

International comparison:

NL – 78% (2021), CH – 89% (2015)



Mobility of
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2021



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Travel distance per person per day (km) Travel time per person per day (min)

Train unchangeably longest and farthest

82 min



train

58.9 km

Travel distance per person per day



32.2 km

in Latvia



23.9 km

in urban areas

Travel time per person per day



80.1 min

in Latvia



75.3 min

in urban areas



Mobility of
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population
2021



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NL – 27.2 km, 69.9 min (2021), CH – 36.8, 90.4 min (2015)



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Vehicle occupancy rate

Vehicle occupancy rate



1.7
in Latvia



1.5
in urban areas

Vehicle occupancy rate is the average number of persons travelling in a passenger vehicle on a reference year.

Vehicle occupancy rate by days of the week



1.5
working days



2.2
non-working days





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Active and soft mobility

Active modes of transportation /micromobility

Travel distance and time per person per day



3.1 km

foot

50.6 min



10.1 km

bicycle

55.4 min



13.0 km

micromobility vehicle

55.2 min



Mobility of
Latvian
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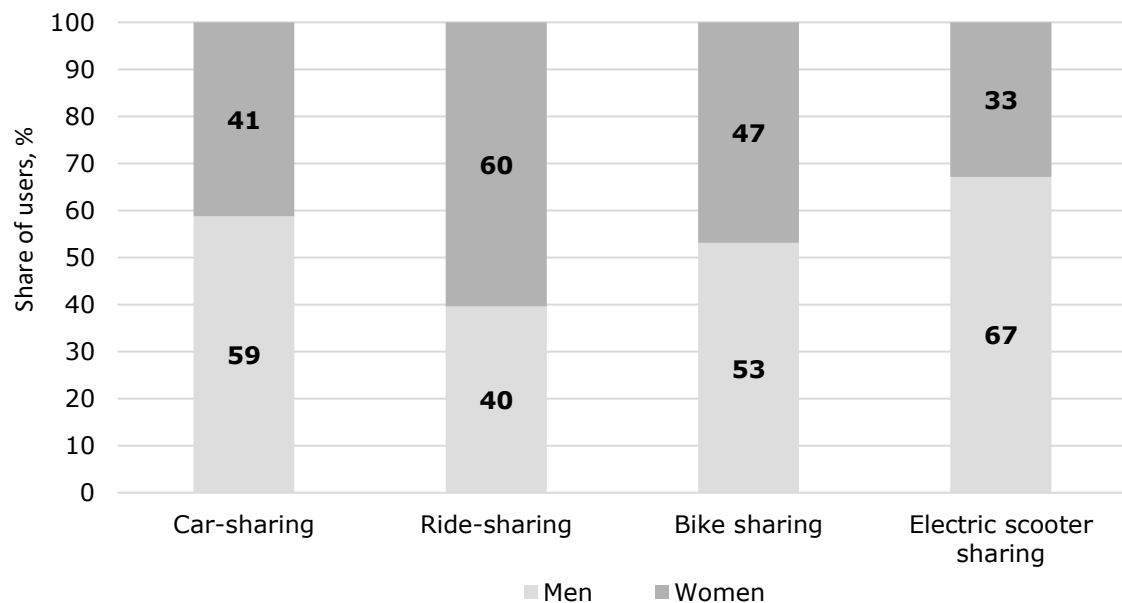


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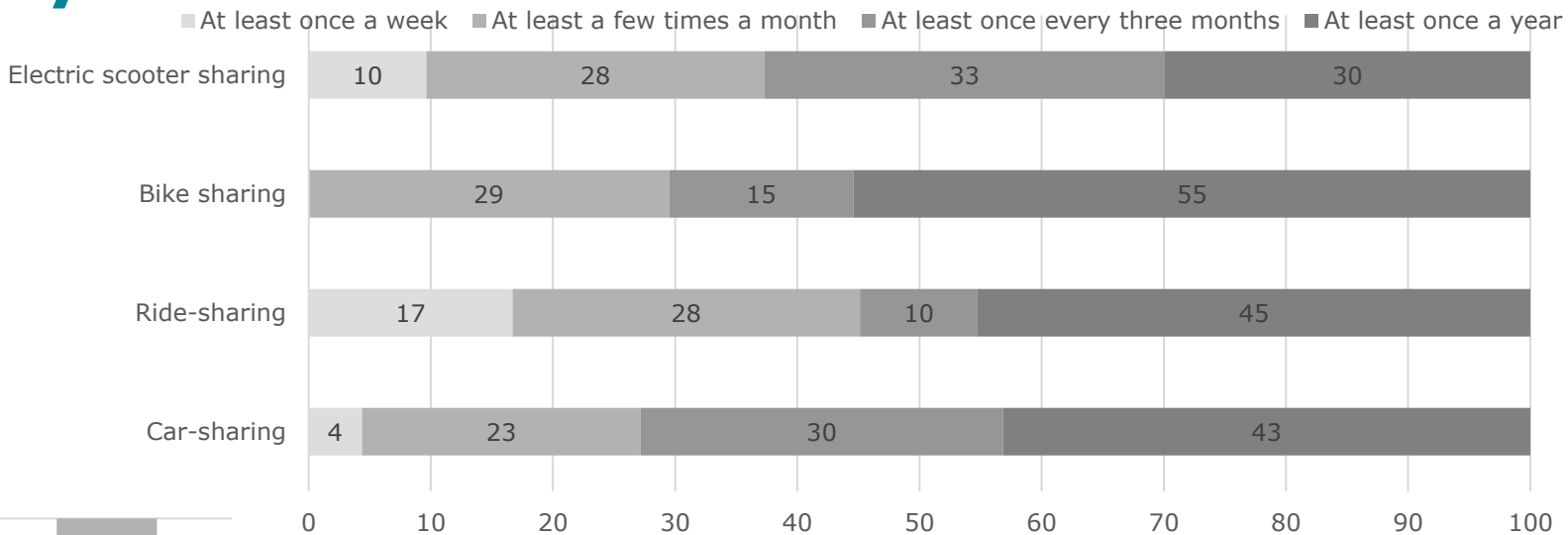
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Shared mobility

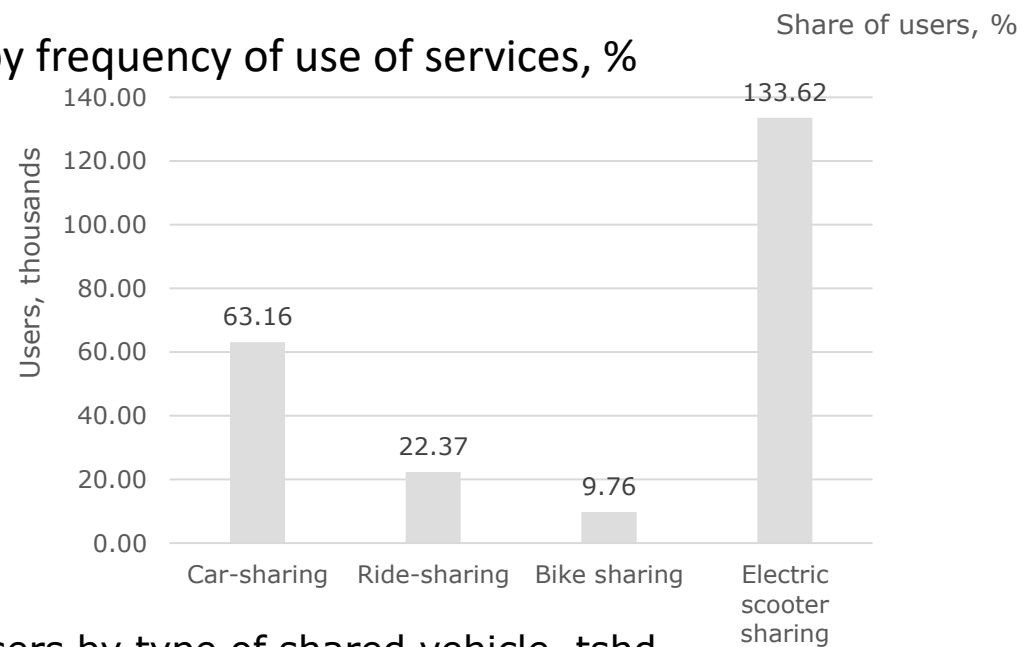


Share of users of shared services by gender, %

Mobility of Latvian population in 2021



Share of users by frequency of use of services, %



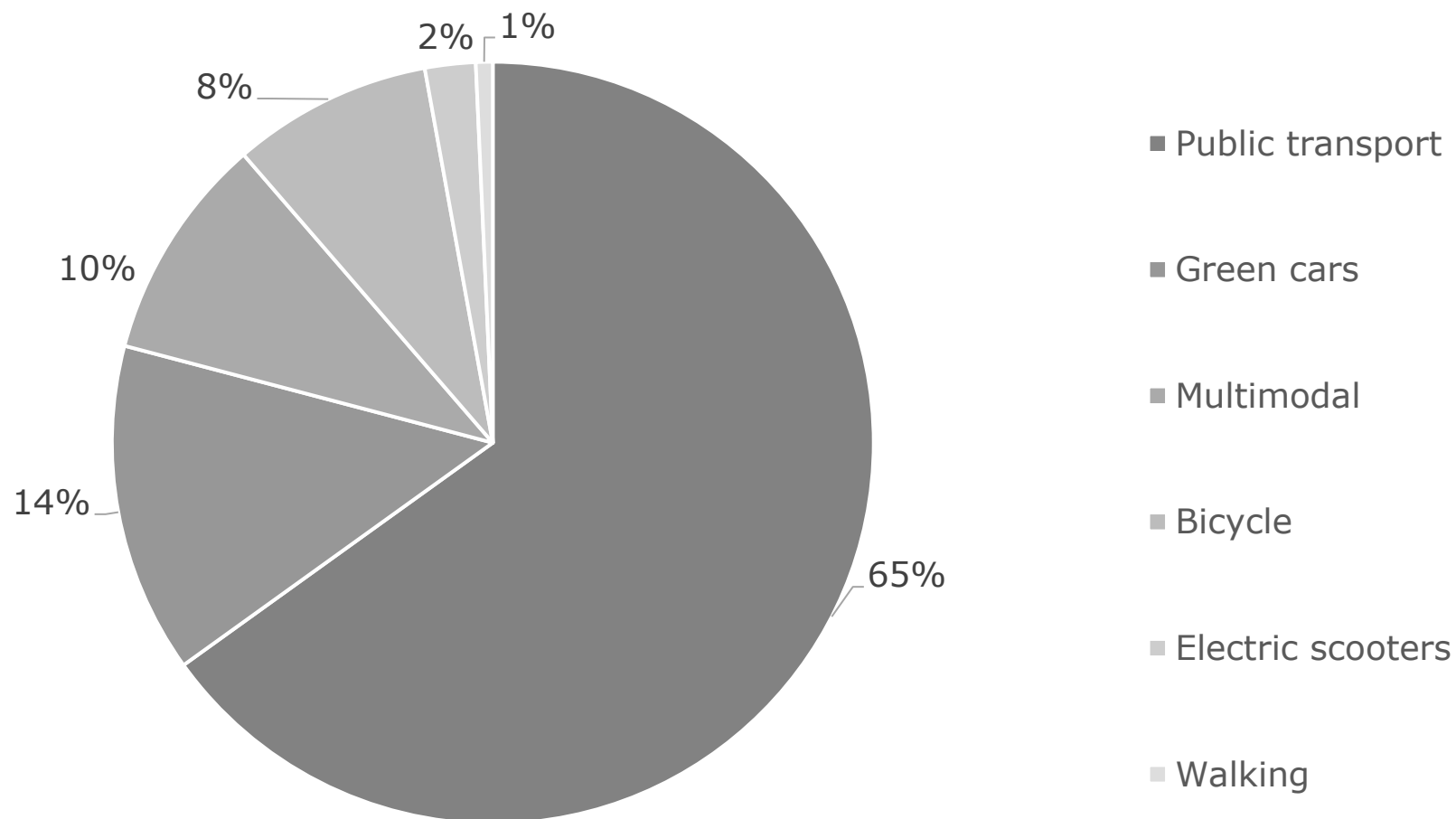
Annual number of users by type of shared vehicle, tsht



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Sustainable mobility in 2021 (pkm, %)

Modal split





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Medium and long distance mobility (>300 km)

Tourism Demand Survey

Adjustments required:

- ✓ source: Tourism Demand Survey (Regulation No 692/2011 of 6.07.11 concerning European statistics on tourism);
- ✓ addition of trip coordinates;
- ✓ calculation of the distances;
- ✓ calculation of mobility variables.

Tourism Demand Survey:

- ✓ number of same-day trips around Latvia;
- ✓ number of overnight trips around Latvia;
- ✓ number of same-day trips abroad;
- ✓ number of overnight trips abroad;
- ✓ mode of transport (passenger car, bus and coach, train, aviation, waterways, cycling, walking and other);
- ✓ travel purpose (professional or personal);
- ✓ address of respondent;
- ✓ CATTU (Classification of Administrative Territories and Territorial Units of the Republic of Latvia) of destination of trip;
- ✓ number of persons in the trip (passenger cars);
- ✓ country of destination of foreign trips.



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Medium and long distance mobility (>300 km) Variables

Possible quality improvements:

- ✓ In respect to the foreign trips an additional variable to the country should be added – city (to get a more precise estimate of a distance travelled);
- ✓ All visited places (cities) in order;
- ✓ Date when travelled (Working day/ non – working day)
- ✓ In respect to the passenger cars a variable «type of fuel» should be collected.



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Medium and long distance mobility (>300 km)

Travel and Mobility survey comparison

Passenger mobility indicators by distance classes	Medium distance mobility		Long distance mobility		Medium distance mobility		Long distance mobility	
	One-day	Overnight	One-day	Overnight	One-day	Overnight	One-day	Overnight
Survey type + survey period + data collection period	Continuous household survey of Personal and Professional trips of Latvian residents, quarterly summaries, 1.02.2018–31.01.2018				Mobility of Latvian population in 2017, 1.09.2017–30.11.2017			
2. Number of trips per person/per year								
a) Total	1.60	1.07	0.02	0.85	0.57	0.66	NA	0.47
3. Travel distance per person/per year (km)/ Average distance per trip								
a) Total	883.5	786.9	59.9	3 035.4	391.0	801.6	NA	1 554.3
4. Travel time per person/ Total number of overnight stays								
a) Total		3 844 420.6		5 406 286.6		261.2		95 331.4
5. Passenger kilometers (pkm) for all reference population/ year								
a) Total	1 515 439 927.4	796 454 017.0	62 866 400.0	2 839 432 224.0	334 714 510.0	455 892 560.2	NA	775 822 413.3
6. Average vehicle occupancy								
For passenger car and taxi	2.10	2.40	1.50	1.80	1.99	1.59	0.00	1.84



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Discussion points

- ✓ Data sources for Mobility/Travel indicators (respondent burden, costs, MPD, different perception of long distance mobility in EU, USA and other parts of the world)
- ✓ New indicator demand from users «Travel distance per trip»
- ✓ Highly valuable data source for transport modelling, people's mobility behaviour, CO₂ emission levels
- ✓ Indicator presentation: mobile and immobile, mobile and respective mobile groups



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Questions, comments welcomed!



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