

# "Mobility in Germany 2017" - German NTS Mobilität in Deutschland (MiD)

**UNECE Working Party 6** 

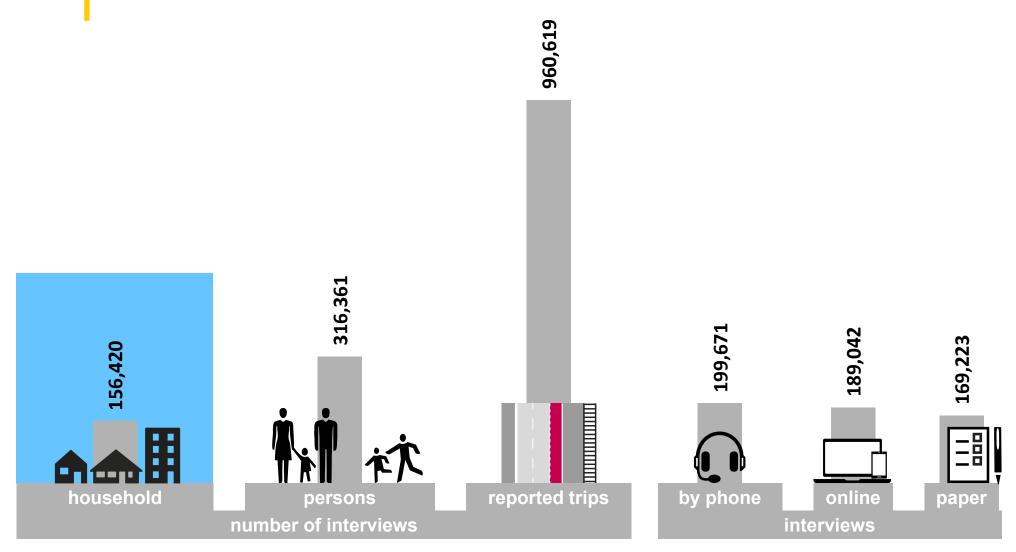


# **Preliminary Remarks**

- Limits of nationwide organized mobility surveys
  - ⇒ can't consider local aspects of urban planning (e.g. attractiviness of routes, accessibility, places of fear)
  - ⇒ can't offer an in depth analysis of walking and cycling
  - ⇒ so far no decision for GPS-tracking (e.g. by smartphones)
  - ⇒ focus is not on the decimal places in certain years, but on change and strucural information
- concept of longitudinal and cross-sectional survey
  - ⇒ temporal change in modal split: annual panel on mobility (German Mobility Panel)
  - ⇒ camparisons of regions, city, spatial typologies, groups of persons, etc.: repeated cross-sectional survey (Mobility in Germany e.g. 2002, 2008, 2017)



# MiD 2017 – Sample and Interview Modes





# MiD 2017 – Key terms of Sample and Methods

- Rough Concept launched by the Federal Ministry of Transport and Digital Infrastructure (BMVI)
- Net nationwide sample
  - ⇒ 35,000 households by order of BMVI
  - ⇒ 125,000 by order of 60 regional partners
- Triple frame sample
  - ⇒ Register: + same chance for selection, spatial cluster effects
  - ⇒ Dual frame telephone (landline and cellular RDD telephone numbers)
- Core and additional topics
- Consultants/Contractors: infas, DLR, IVT Research, infas360



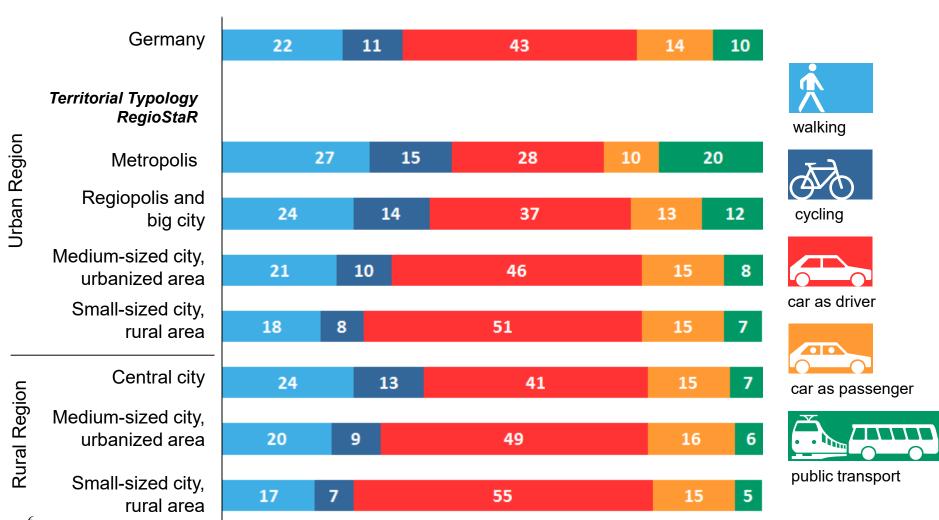
# MiD – facing the challenges of collecting data on cycling and walking

- trip: as clear as possible a definition of what is meant
  - ⇒ MiD: all routes on foot or by mode of transport on public ways; outward and return are one trip
- mode effects
  - ⇒ different readiness of participation, different possibilities for plausibility checks
  - ⇒ decision: CATI, CAWI and PAPI on all levels (households, persons, trips, cars)
- stratification and weighting concept
  - ⇒ using regional types and small scaled spatial data (e.g. core city versus outskirts)
- subsample: stage concept
  - ⇒ not analysed yet
- Matching of different and detailed spatial informations
  - ⇒ to be able to explaine different cycling and walking patterns (e.g. relief, density, local weather,...)
- sophistaced survey concept >> analysis are ongoing, lab for future surveys



# **Modal Split in Germany 2017**

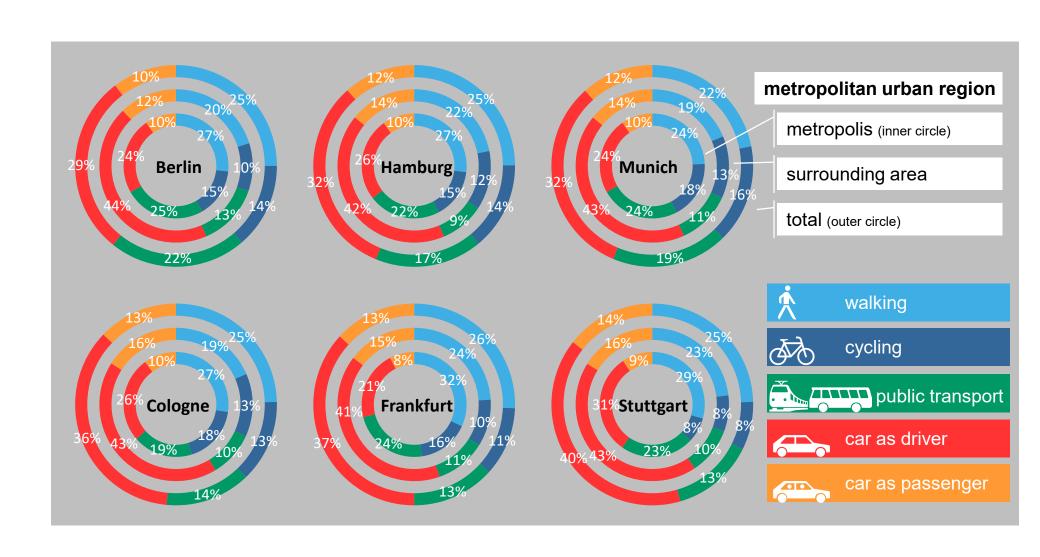
main transport mode by residence of persons - percentage of trips





# Modal Split in Metropolitan Urban Regions 2017

main transport mode by residence of persons - percentage of trips





# **Public Transport – Different Modes**

	Total	Urban Regions				Rural Regions		
		Medium-				Medium-		
percentage			Regiopolis	sized City,	Small-sized		sized City,	Small-sized
of trips			and Big	Urbanized	City, Rural	Central	Urbanized	City, Rural
		Metropolis	Cities	Area	Area	Cities	Area	Area
Public Transport total	10%	21%	13%	8%	7%	7%	6%	5%
therof								
long distance travel	1%	2%	1%	1%	1%	1%	1%	1%
local transport	9%	19%	11%	7%	6%	6%	5%	4%
therof								
local / regional bus	3%	4%	5%	3%	3%	4%	3%	3%
tram	1%	3%	3%	1%	0%	1%	0%	0%
light rail / metro	2%	8%	1%	1%	1%	0%	0%	0%
local train	2%	5%	2%	3%	2%	1%	1%	1%
others	0%	0%	0%	0%	0%	0%	0%	0%



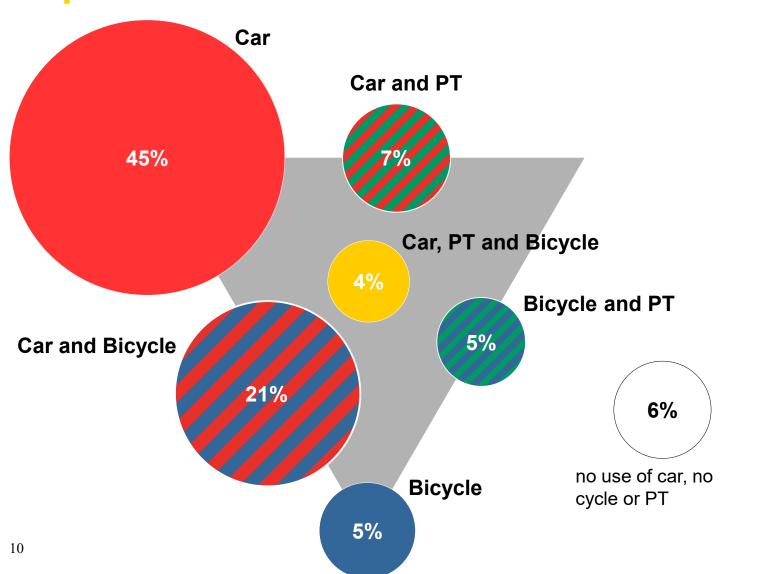
# Model Split (main transport mode) in German Metropolises by different Spatial Structures

			car as	car as	public		
percentage of trips	walking	cycling	driver	passenger	transport	total	
relief / slope in the environment (250 m grid cell and surrounding cells)							
<5%	27%	16%	10%	26%	21%	100%	
5% and more	28%	7%	12%	35%	18%	100%	
inhabitants per squarekilometer							
less than 1,000	16%	10%	42%	16%	17%	100%	
1,000 to under 2,000	19%	10%	43%	14%	15%	100%	
2,000 to under 5,000	26%	12%	33%	12%	18%	100%	
5,000 to under 10,000	28%	16%	26%	10%	21%	100%	
10,000 and more	31%	18%	19%	8%	24%	100%	
total	27%	15%	28%	10%	20%	100%	



# Multimodality

(usually used within one week, persons >= 16 years)





# Data Dissemination with Innovative Components (available only in German)

- www.bmvi.de/mid or www.mobilitaet-in-deutschland.de
- Classical:
  - ⇒ Reports
    - Result report
    - Method report
    - User manual
  - ⇒ Volume of tables
- Innovative
  - ⇒ Internet based online analysis tool: <u>www.mobilitaet-in-tabellen.de</u>
  - ⇒ Micro data use files:
    - Scientific-use files with a cascading system of spatial resolution and aggregation level of characteristics (see next slide) Micro data use files (to order at: <a href="https://www.dlr.de/cs/">https://www.dlr.de/cs/</a>) > restricted access (public interest, science)
    - Public-use files

# Thank you for your attention!

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## Annex

basic information on

- Survey Programme
- Usefiles System of Data Provision
- modes of transport



# **Questionnaire Program**

- Conflict of objectives
  - ⇒ Reduce the response burden
  - ⇒ Demand for more topics (carsharing, e-mobility, ...)
- Division in :

### core topics (CATI, CAWI + PAPI)

important for transport infrastructure planning

- > high precision of the key variables
- > reliable differentiations
- > acceptance of PAPI

## modules: additional topics (CATI, CAWI)

important, but

- > sub-sample are sufficient
- > no high interests in regional data (e.g. wearing of helmets)



### household

- household size, secondary residence
- age, sex, occupational status of all of the household members
- net household income
- tenant, owner
- number of bicycles, pedelecs / e-bikes, mopeds, motorbikes and cars in the household
- number of driving licenses in the household
- car sharing membership of at least one person in the household

reasons for having no car

- engine power
- car holder
- usual parking space

### cars

- producer and model
- annual mileage
- type of drive
- year of producing
- initial registration

### car module

## persons

- age and sex
- educational attainment
- employment
- background of migration
- tvpe of license
- carsharing membership
- usual used ticket in public transport
- availability of transport modes bicycle, pedelec/ebike, car
- usual usage of transport mode (own car, carsharing, public transport, bicycle, train, remote bus, airplane)

### travelling module

reporting of the last 3 yourneys with at least 1 overnight stay within the last 3 months

### module additional personal characteristics

year of receiving driving license, commuter with secondary residence, homeoffice, reduced mobility

### module (digital) infrastructure

use of digital devices to support mobilty, modes of transport for shopping, online shopping

### modul short-range mobility and cycling

usage of bikesharing, only walking, helmet, parking bicycle at home

## record day

- mobility
- surrounding
- car availability

### trips

- source first trips
- time of starting and arrival
- purpose
- transport modes
- companion
- destination (adress / geocode)
- distance
- regular professional trips

### module satisfaction and attitudes

satisfaction with public transport, car and bicycle traffic, walking, attitudes car, bicycle, public transport, walking

### combined with car module

assignment of cars of the household to trips

interviews on all stage for a subsample

### core themes

car module

car ownership

additional modules for certain subsamples



# **Usefiles - System of Data Provision**

data user / requirements of data set spatial resolution characteristics data protection

A public use file (completely anomised)

Territorial typologies (≥200.000 inh)

Aggregated sozio-demografic and economic data (e.g. age groups, vehicle segments)

public

B scientific use files / factually anonymised							
B3 local data	grid (≥500 m x 500 m and ≥ 500 inh)	Highly aggregated socio- demografic data, no sensitive data	scientist, authority with a small scaled data request - high standards of data protection *				
B2 regional data	official territorial units e.g. NUTS3, LAU (≥5.000 inh)	Sozio-demografic and economic data (e.g. income classes, vehicle segments)	scientist, authority *				
B1 data by territorial typologies	Territorial typologies (≥200.000 inh) (e.g. y	Differentiated socio-demografic and econmic data rear of age, income, detailed vehicle informatione	scientist, authority, economy *				

<sup>\*</sup> who signed a data distribution contract