



# »My ways«

## Mobile application for collecting data on daily trips



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# Introduction

- Pilot application developed within the Eurostat project "*Passenger mobility statistics and road traffic statistics*"
- To test more modern methods of data collection
  - How to include the "modern" method of data collection in the statistical process?
  - How to prepare an application?
  - How to introduce the application to the public to use it?
  - Is it possible to supplement the classical data collection with this new mode of data collection?
  - Whether there is a potential to use an app for data collection instead of traditional data collection in the future?

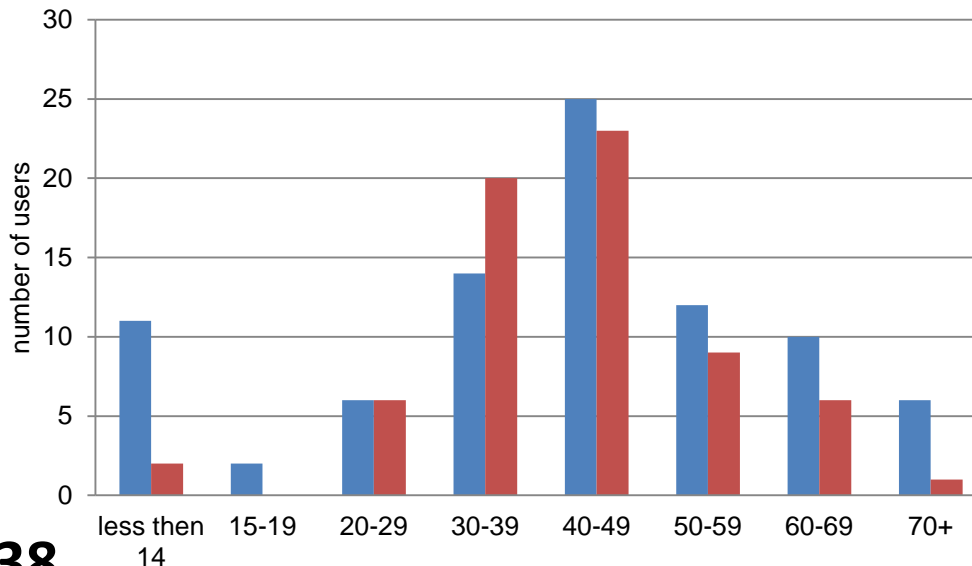
# Methodology

- Purpose of application: to collect data about trips that are made by a single user at a specific time
- Available for Android and iOS mobile operating systems
- Data collection: October–December 2017
- Anonymous recording of data (sex of the user, year of birth)



# First results

- Number of users: **153**



- Total number of trips: **3,938**
- Total length of all trips: **26,606 km**

	Working day	Non-working day	All days
Number of trips per person per day	2.86	2.75	2.84
Travel distance per person per day (km)	42.79	38.32	41.92
Travel time per person per day (min)	79.75	81.06	80.00



# Advantages of data collection with an app

- **Data capture**
  - providing accurate spatial and time data
  - "real-time" continuous measurement
  - time efficiency – a faster data collection process
- **Improved data quality**
  - "objective" rather than subjective measurement
  - less recall errors (esp. for short trips)
  - less data entry errors
- **Reduction of burden on respondents**
- **Cost-effectiveness – reducing research costs**
  - faster, less expensive data collection on a large number of units

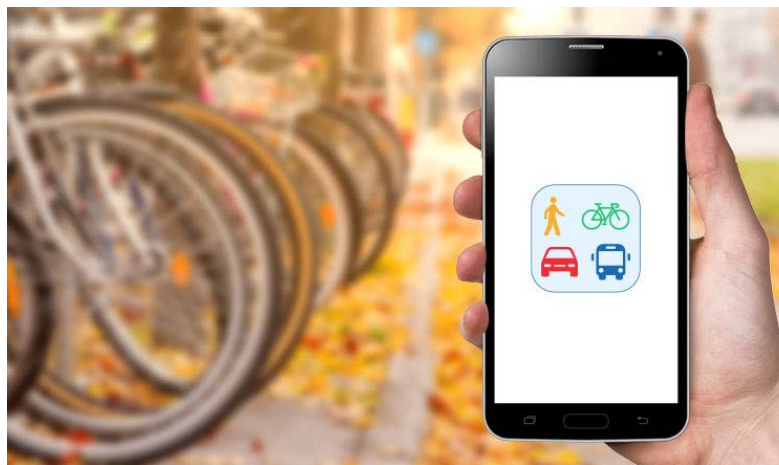
# Challenges of data collection with app

- **Choice of respondents**
  - sampling bias – Who owns the device or uses technology?
  - actual willingness to participate – How to motivate/encourage people to participate?
- **Consent, informing, compliance**
  - application installation – caution with access authorization
  - informing with General rules and Instructions for users
  - systematic bias – user can turn off the tracking
- **Problems with the measurement and technical capabilities of mobile phone**
  - missing data (technical errors, non-compliance)
  - quality (reliability) of measurement – accuracy of GPS
  - the consumption of a cell phone battery depending on the desired accuracy



# Challenges of data collection with app

- **Analysis of data**
  - trust in the collected data
  - raw data are not directly usable
  - methodological challenges - finding appropriate observations in a large amount of data
- **User privacy, disclosure risk**
  - confidence of users in the privacy of data collection







21:37

## Osnovni podatki

Spol \_\_\_\_\_

Letnica rojstva \_\_\_\_\_

NADALJUJ

TELEMACH 61% 14:25

## Moje poti

 REPUBLIKA SLOVENIJA  
STATISTIČNI URAD

Odpravljate se na pot. Svoje poti v naslednjih 48 urah lahko beležite ročno – gumb **Nova pot** –, lahko pa uporabite funkcijo **Samodejno beleženje poti**. Iz seznama izberite **namen** te poti in uporabljeno **prevozno sredstvo**.

NOVA POT

PREGLED POTI

PRIMERJAVA Z DRUGIMI UPORABNIKI

Samodejno beleženje poti 



TELEMACH 61% 14:26

← Moje poti

Namen poti

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Prevozno sredstvo

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Prevozno sredstvo je obvezen podatek


PRIČNI

- TELEMACH 60% 14:26
- ← Namen poti
- Poslovni, službeni opravki, poslovna pot do 300 km
  - Šola, fakulteta (izobraževanje)
  - Peljati/priti iskat/spremljati otroka ali drugo osebo
  - Nakupovanje
  - Prosti čas (npr. druženje, sprehod, rekreacija, delo na vrtu ...)
  - Različni osebni opravki (npr. zdravnik, frizer, avtomehanik ...)
  - Vrnitev domov
  - Pot v kraj začasnega naslova iz kraja stalnega naslova
  - Pot iz kraja začasnega naslova v kraj stalnega naslova
  - Drugo

- TELEMACH 60% 14:26
- ← Prevozno sredstvo
- Peš, tek (tudi skiro, rolerji ipd.)
  - Kolo
  - Osebni avto kot sopotnik
  - Osebni avto kot voznik
  - Kombi
  - Taksi kot potnik
  - Avtobus - mestni
  - Avtobus – medkrajevni in vsi ostali prevozi (npr. šolski ali na izlete ipd.)
  - Vlak
  - Motorno kolo, moped, skuter



Moje poti

 REPUBLIKA SLOVENIJA  
STATISTIČNI URAD

Trenutno ste na poti. Od vašega izhodišča ste se premaknili za 0,0 km, vaše potovanje traja 00 min. Če na tej poti uporabljate več prevoznih sredstev, izberite Zamenjaj prevozno sredstvo.

ZAMENJAJ PREVOZNO SREDSTVO

KONČAJ POT

SPREMENI PODATKE O POTI

PREGLED POTI

PRIMERJAVA Z DRUGIMI UPORABNIKI

Samodejno beleženje poti

TELEMACH


Pregled poti

- 11.10.2017 10:12  
23 min; 3,11 km - Prosti čas (npr. druženje, sprehod, rekreacija, delo na vrtu ...)
- 06.10.2017 10:04  
27 min; 1,87 km - Delo, služba
- 04.10.2017 11:05  
00 min; 0,03 km - Delo, služba



WhatsApp, App Store, Location, Signal, 4G, 20:57

← Moje poti



Osnovni podatki  
**11.10.2017 17:56; 10 min; 6,9 km**

Namen poti  
**Prosti čas (npr. druženje, sprehod, rekreaci)**

Prevozno sredstvo  
**Osebni avto kot voznik**

Gorivo  
**Dizel**

TELEMACH, Signal, 61%, 14:26

← Primerjava z drugimi uporabn...

**Vsi** uporabniki aplikacije so povprečno na dan:

- opravili **4,6** poti
- opravili **7,7** km
- porabili za poti **33** minut

**Vi** ste od začetka beleženja podatkov povprečno na dan:

- opravili **1,0** poti
- opravili **1,7** km
- porabili za poti **16** minut

**OSVEŽI**



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