

# WELCOME!

**Interreg**   
CENTRAL EUROPE  
European Union  
European Regional  
Development Fund

**LOW-CARB**



# WEBINAR

How can public transport assist companies to develop mobility management measures?

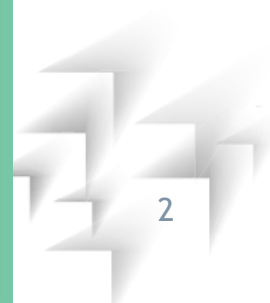


# Webinar Agenda

3 June 2020, 10-11:00 CET

How can public transport assist companies to develop mobility management measures?

- |       |   |
|-------|---|
| 10:00 | Introduction to LOW-CARB project<br><i>Marlene Damerau (Rupprecht Consult)</i>                                    |
| 10:10 | Tools for workplace mobility management<br><i>Robert Schillke, (MDV, Leipzig)</i>                                 |
| 10:25 | Q&A Session   |
| 10:35 | Mobility management planning for companies in Szeged's North Area<br><i>Dr. Zoltán Ádám Németh (SZKT, Szeged)</i> |
| 10:50 | Q&A Session   |
| 11:00 | Closing remarks   |



# THE CO-ORDINATION TEAM



*Moderator:*

**Marlene  
Damerau**



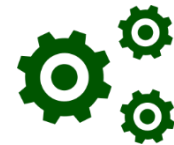
*Screen and  
Polls:*

**Saydrina  
Govender**



*Support and  
Questions:*

**Ana-Maria  
Baston**



TAKING  
**COOPERATION**  
FORWARD



Webinar

3 June 2020



**LOW-CARB: Capacity building for integrated low-carbon mobility planning in functional urban areas**



*Marlene Damerau, Rupprecht Consult, Cologne, Germany.*

## LOW-CARB: Capacity building for integrated low-carbon mobility planning in functional urban areas

### Programme Specific Objective:

To improve capacities for mobility planning in functional urban areas to lower CO<sub>2</sub> emissions

### Project Main Objective:

LOW-CARB project aims to enhance capacities for integrated low-carbon mobility planning for functional urban areas in Central Europe.

### Project Specific Objectives - with a focus on public transport:

- *Integrated low-carbon mobility planning* for functional urban areas
- *Capacity building* for integrated low-carbon mobility planning in FUAs
- *Pilot actions* for low carbon mobility in FUAs



## LOW-CARB and mobility management

... for better accessibility of FUA's (e.g., new mobility services for **remote business areas**)

... reduce emissions from commuter flows

... involve companies

... PT perspective



... **action plans** with targeted measures for coordination, information, organization and advice

... collect, share, analyse and process **commuters' travel data**

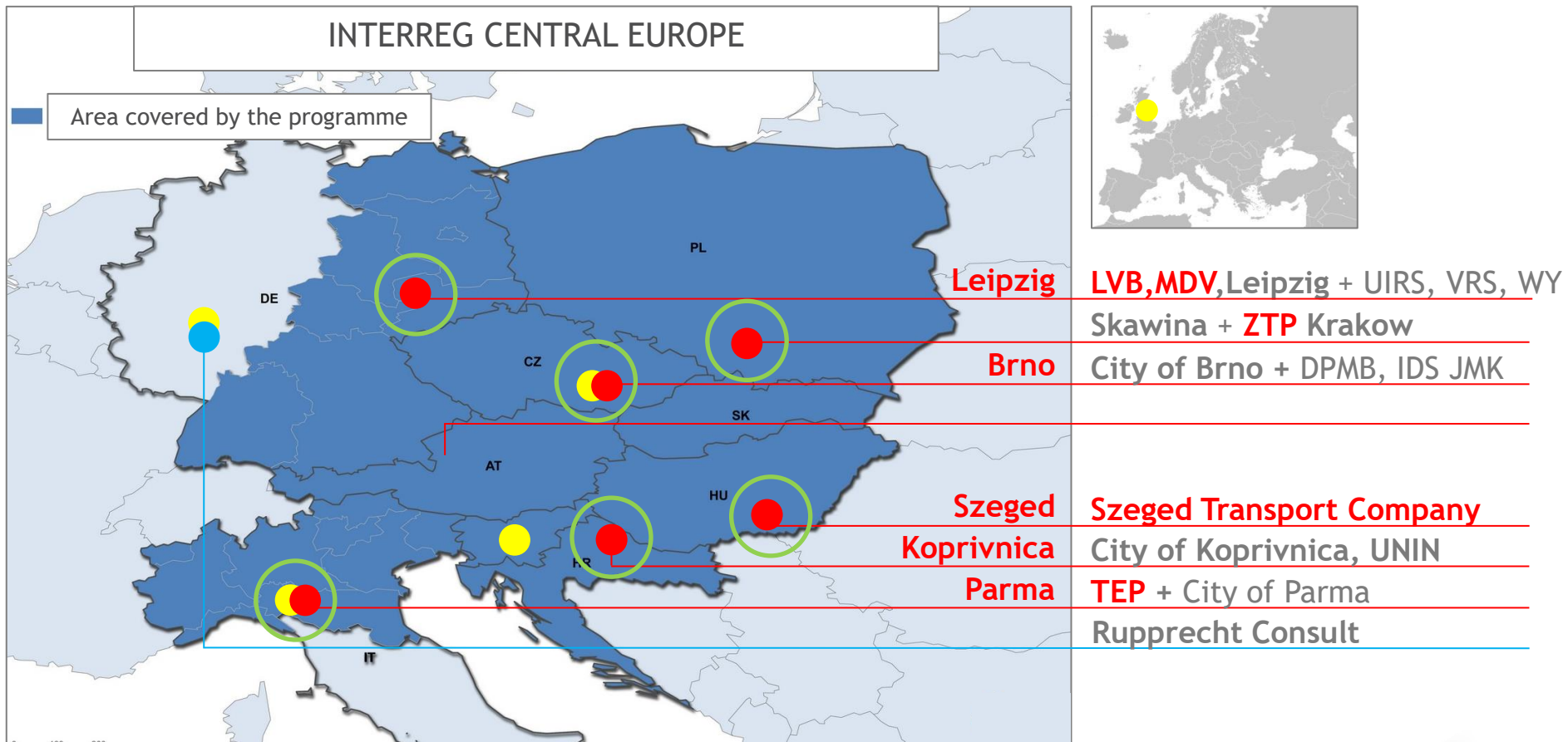
... in line with **data-based** development scenarios

... multi-stakeholder processes led by **public transport companies and associations**

... for goal-oriented influencing of company employees' **behavior**



# INTERREG CE PROJECT LOW-CARB: MAP OF PARTNERS



**10**

project partners

**7**

associated partners

**6**

FUAs

**6**

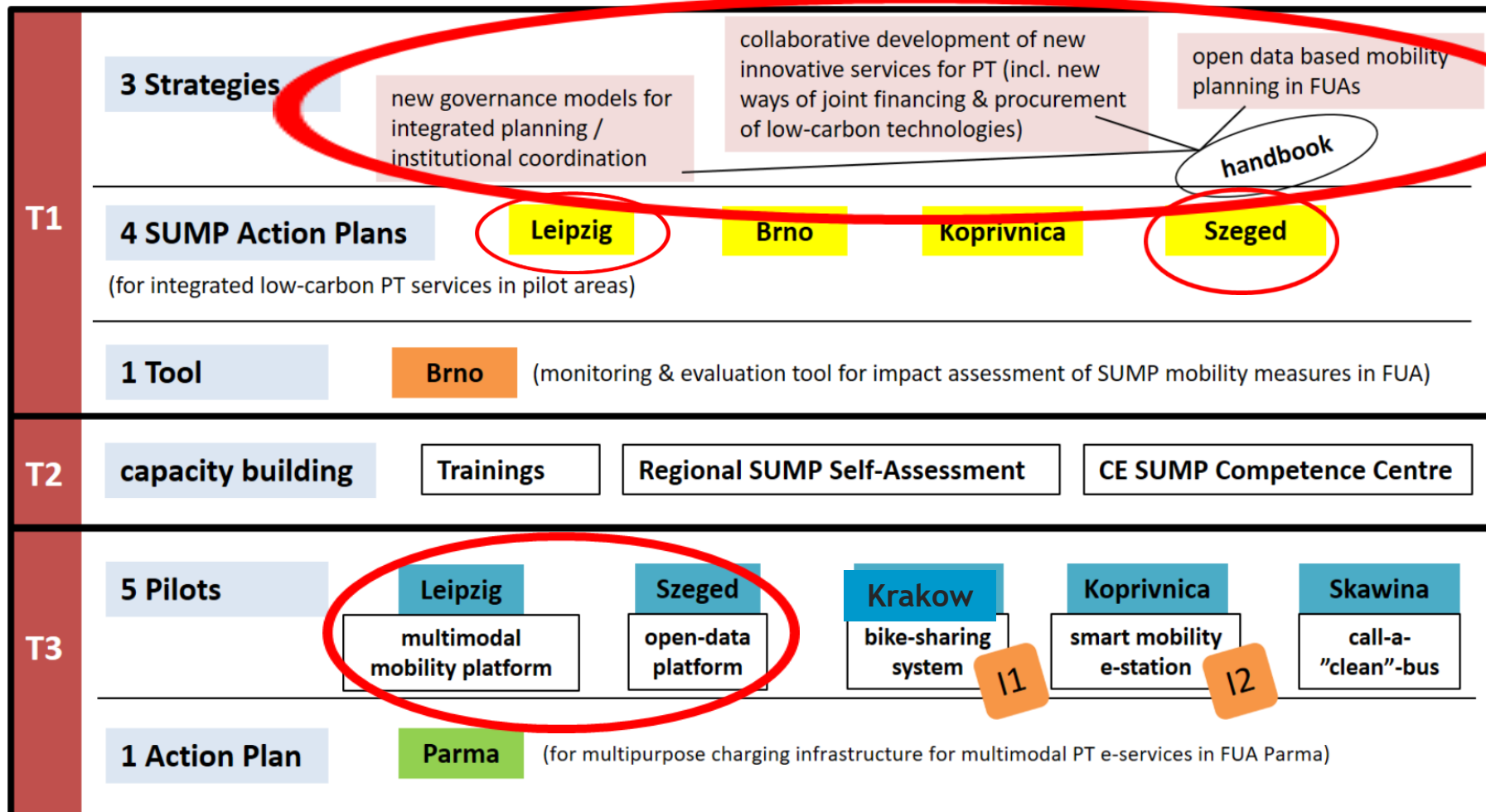
CE countries



TAKING COOPERATION FORWARD



# INTERREG CE PROJECT LOW-CARB: WORK PACKAGE STRUCTURE



# LOW-CARB: OPEN DATA STRATEGIES IN LEIPZIG AND SZEGED

## Sustainable urban mobility planning with open data

December 2019 @ Chaos Communication Congress,  
Leipzig

Duration 2,5h

With interesting additional data sets

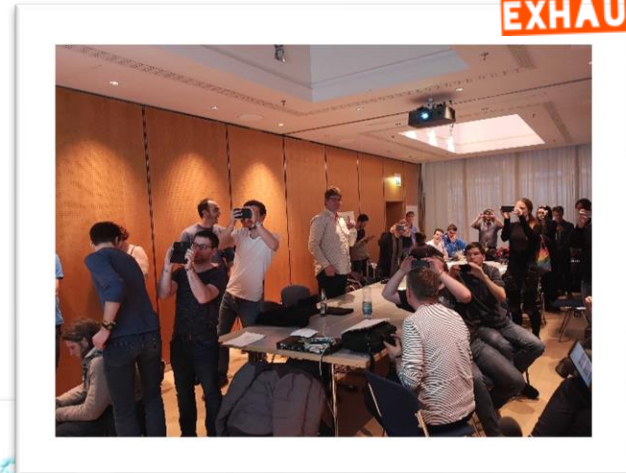
PT Chatbot by OKLab Leipzig



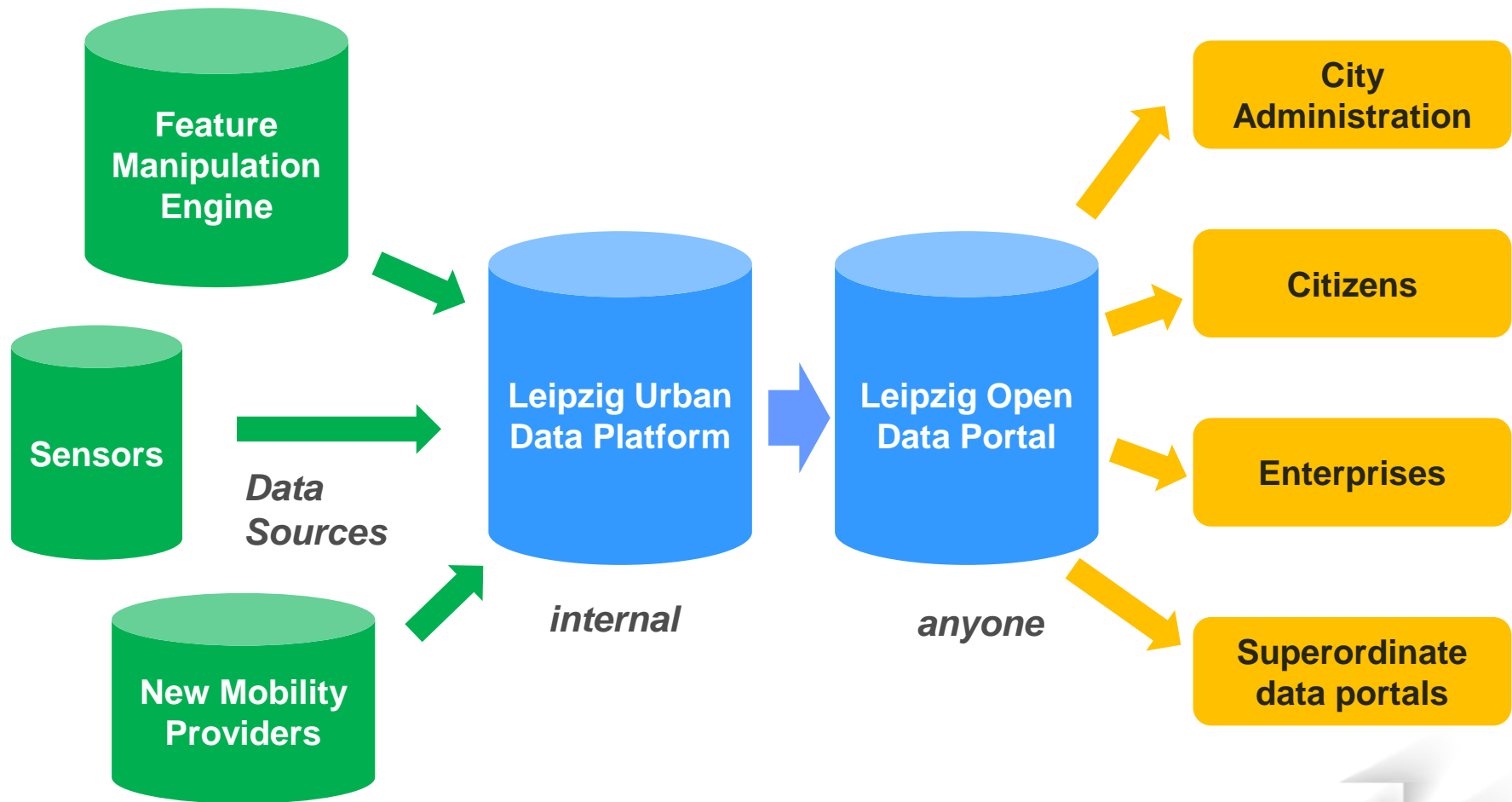
Telegram



March 2019 Szeged Boost (2 days)



# OPEN-DATA STRATEGY (1/2) - THE „LEIPZIG WAY“ TO OPEN TRANSPORT DATA




<https://www.sump-assessment.eu/start>

- English
- French
- German
- Romanian
- Spanish

SUMP Self-Assessment Tool

- 0 Start
- 1 Planning Context
- 2 Mobility Assessment
- 3 Vision and Objectives
- 4 Measurable Targets
- 5 Integrated Transport
- 6 Implementation Plan
- 7 Institutional Cooperation
- 8 Participation
- 9 Monitoring and Evaluation
- 10 Results

Already started the Self-Assessment?  Reload Assessment

**Start** 

**Welcome to the SUMP Self-Assessment**

The SUMP Self-Assessment helps you to **evaluate and improve mobility planning** in your city or functional urban area. The results page will show you how well your planning activities fulfill the [principles of a Sustainable Urban Mobility Plan \(SUMP\)](#), enabling you to identify the strengths and weaknesses of your approach. It will provide you with **tailored advice for further improvement**, good practice examples and links to guidance for your specific situation.

The SUMP Self-Assessment can be used to **both assess the quality of a specific strategic mobility plan, and to evaluate planning activities in general**. This makes it useful at all stages of the planning process - e.g. to assess what to improve when starting a SUMP; to readjust activities throughout the process, or to assess the plan quality when finalising or having completed a SUMP. To achieve an assessment that fits your situation, there are **tailored sets of questions depending on your planning context and interest** (assessment of a strategic mobility plan, or of planning activities in general).

The SUMP Self-Assessment should be **completed by one or several persons who are well acquainted with mobility planning activities in your city or functional urban area** (and with the SUMP and its development process if you want to assess plan quality). It is possible that one person answers on behalf of the mobility planning team or the team having that role. However, for greater accuracy we recommend that several people fill in the questionnaire (which could include colleagues from other departments, other municipalities, regional organisations, decision makers and key stakeholders involved in mobility planning or plan development). You can gain highly relevant insights if you then compare similarities and differences in responses of different stakeholders, e.g. in a workshop.

The SUMP Self-Assessment consists of eight sections that are directly related to the SUMP principles and roughly follow the order of a planning process. Depending on your planning context, it contains **30 to 45 questions**. If one person with a good level of information fills it in on their own, it should only take around **20 to 30 minutes** to complete. To use it in a workshop format, we recommend 1.5 to 2 hours to allow enough time for discussions.

Start SUMP Self-Assessment

All data collected in this survey will remain strictly confidential. In no case will we publish the results of individual cities or identify individual cities in any publications ([more details on data usage](#)). You can **use your personal code to check your results or share them** with others for a workshop.





# LOW-CARB OUTPUT: CENTRAL EUROPE SUMP COMPETENCE CENTER

## TRANSPORT

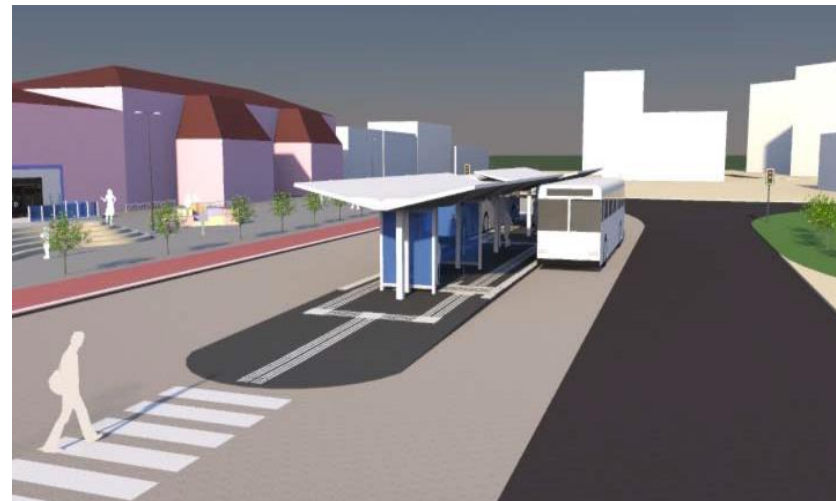
The expansion, modernization and harmonization of infrastructure across the EU are fundamental to creating cross-border networks without obstacles to different types of travel and transport.

[Find out more](#) +



## *Koprivnica:*

- *Development of a smart multimodal PT station with RES energy integration (charging e-bus and e-bikes)*



## *Parma:*

- *Development of a multimodal charging spot for the FUA (shared e-cars and e-buses)*



# THE SUMP CYCLE, SECOND EDITION

 Milestone:  
Measure implementation  
evaluated

 Milestone:  
Decision to prepare  
a SUMP



 Milestone:  
Sustainable Urban  
Mobility Plan adopted

 Milestone:  
Analysis of problems and  
opportunities concluded

 Milestone:  
Vision, objectives and  
targets agreed



# Thank you for your attention!

## Coordination teams:



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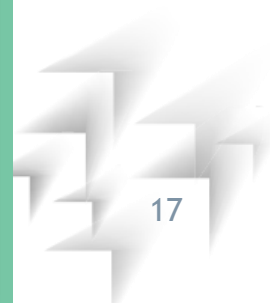


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**EfficienCE**

**LOW-CARB**




**Robert Schilke**

*Mitteldeutscher Verkehrsbund (MDV)*

**Tools for workplace mobility  
management**



TAKING  
**COOPERATION**  
FORWARD

 Webinar, 03.06.2020: How can public transport assist companies with mobility management?

 **Tools for workplace mobility management**

 *Robert Schillke (MDV)*

# AGENDA

Background

Why we involved  
companies?

Process

How we involved  
companies?

Actions

What we offered  
companies?

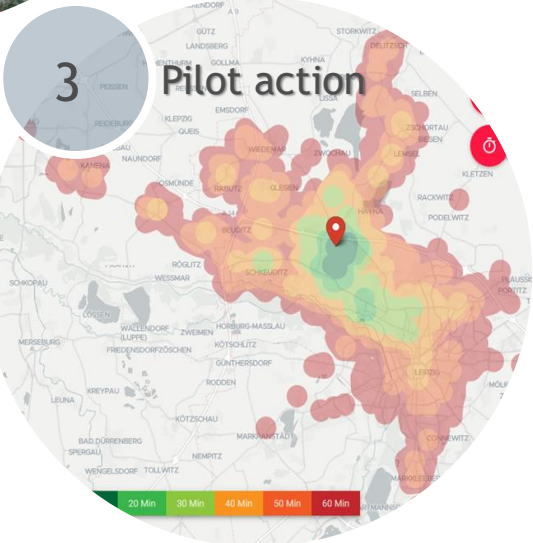
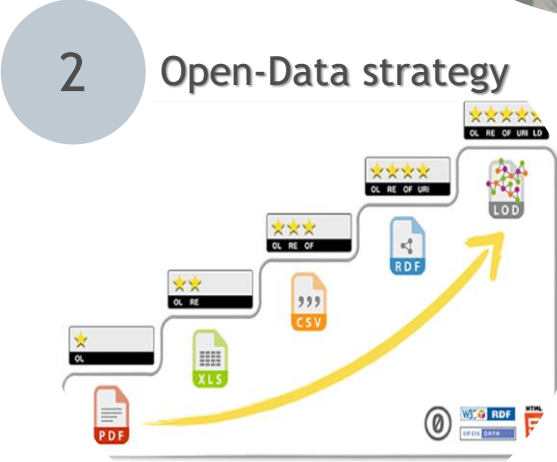
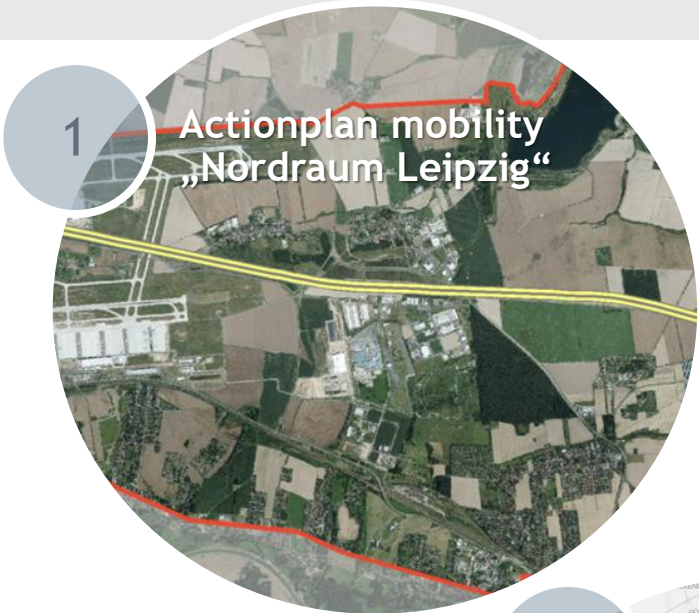
Lessons learned

What have we  
learned?



# PROJECT RESULTS LEIPZIG PARTNERS

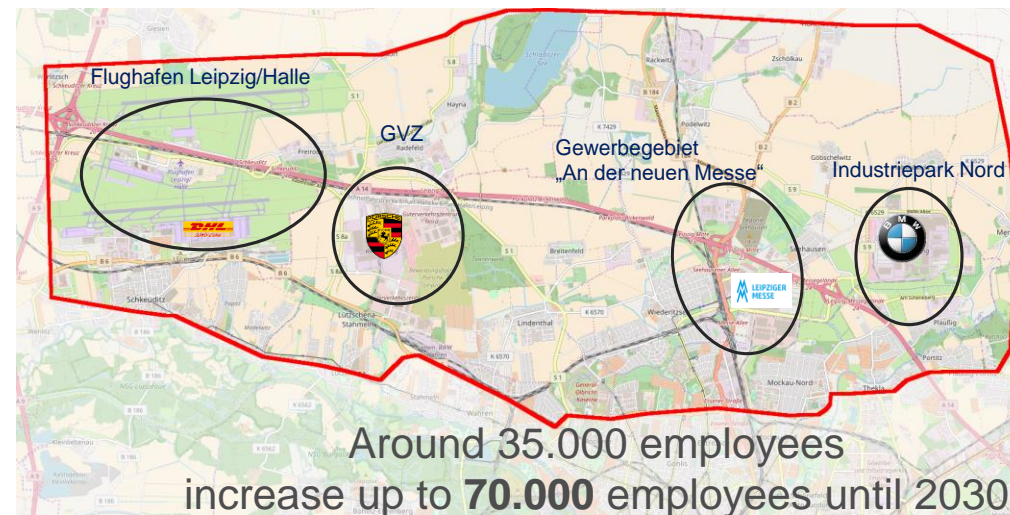
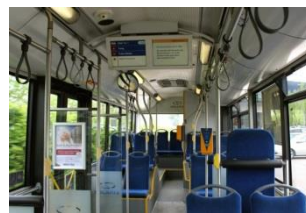
**ACRONYM**





## Challenges

- Flexible shift times in companies
- Traffic capacity bottleneck during peak hours
- Low demand in off-peak hours
- Problem of the „last mile“
- Traffic connections with change-overs and long times



# GENERAL GOALS

## Masterplan with actions dealing with



High share of eco-friendly modes of transport



Fulfillment of employees mobility needs



CO<sub>2</sub>-reduction



Prevention of gridlock

Realisation step-by-step after finishing LOW-CARB-project:



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 Christian Jummrich



 Carsten Schuldt



 Robert Schillke



 Tilman Schenk



## Transport Planer

- PT- transport offers
- Customer consultation

## Data specialist

- Digital tools „Reachie“ and Data analysis
- Cycling Infrastructure

## Mobility Manager

- Contact for city administrations
- Contact for companies

## Stakeholder Manager

- Governance-strategy
- Infrastructure concepts



Companies are the main target group in the Northern industrial area of Leipzig

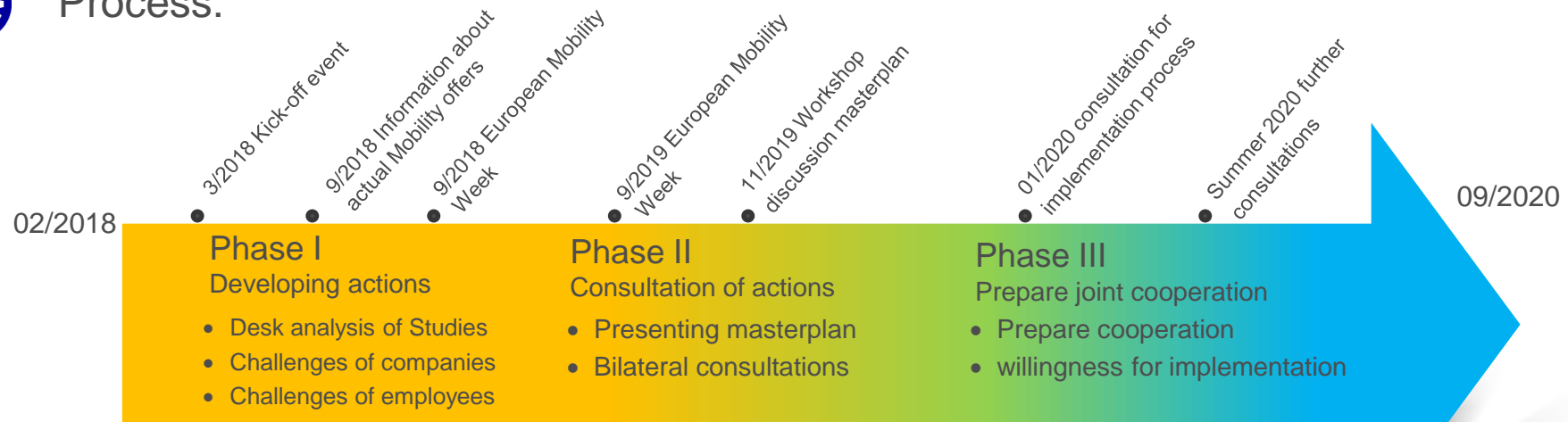


## Goals:

- Involve companies in the whole process from beginning
- Increase interest in actions
- Prepare direct participation of companies in later implementation



## Process:



**Involved Stakeholder:** City administrations, Regional administration, PT-providers and associations, Companies (BMW, Porsche, DHL, logistics and service providers)



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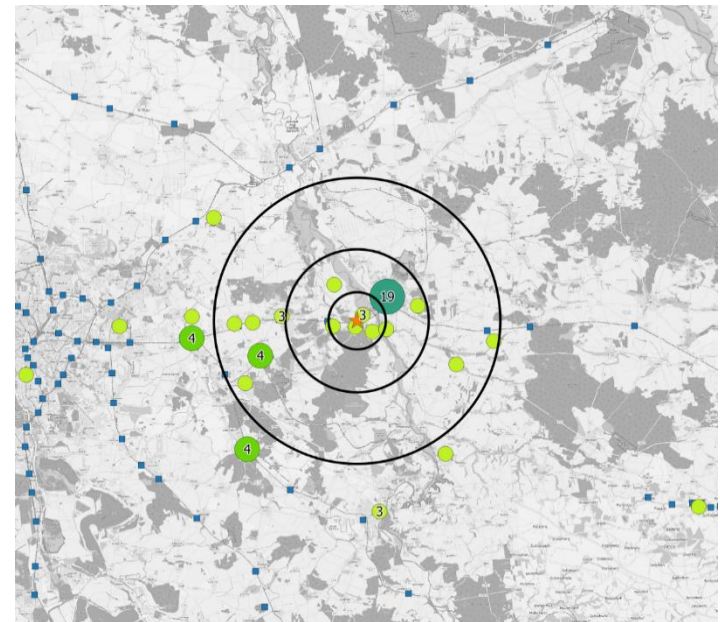
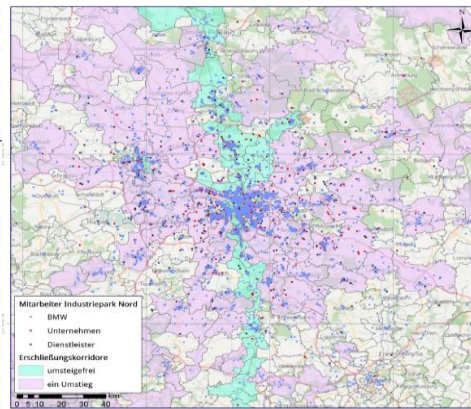
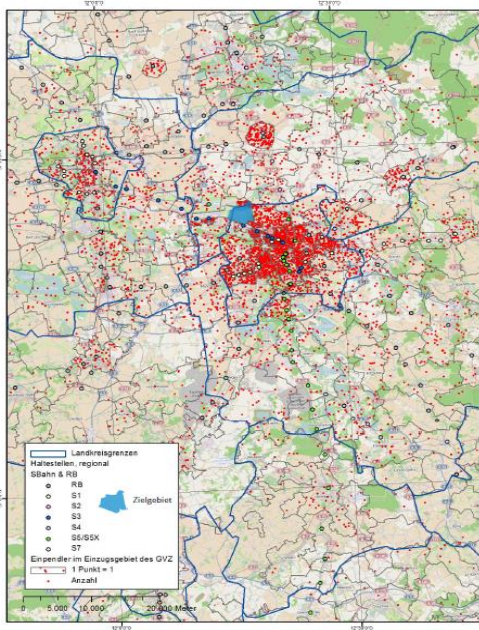
Lessons learned

What have we  
learned?



Analysis of residential locations of employees for:

- Commuting distances
- Mobility offers (PT, B&R etc.)
- Interchanges in PT



Existing studies of data and interviews with companies

Own Analysis based of companies data  
→ **GDPR was an issue**



# EXAMPLE EMW 2018

- 01.08.2018: Workshop with companies on:
  - PT offer in the „Nordraum“
  - Their needs on mobility
  - EMW action 2018
- 5 on-site information events during EMW
- Mobility-Consulting of 280 employees
- 420 free tickets (4 trips) for public transport sponsored by ZVNL (local train authority)
- Info-Materials for further marketing activities





# EMW 2018 – HIGHLIGHT PT

**EUROPÄISCHE MOBILITÄTS WOCHE**  
16-23 SEPTEMBER

**CLEVER MOBIL IM LEIPZIGER NORDRAUM – MOBILITÄTSBERATUNG & SCHNUPPERTICKETS**



**Schnuppertickets und Mobilitätsberatung vor Ort**

**24-Stunden-Karte für vier Personen gewinnen!**

Unter allen Teilnehmern verlosen wir 5 mal eine 24-Stunden-Karte für 4 Personen für das gesamte MDV-Gebiet (solange der Vorrat reicht).  
Dazu einfach die Postkarte ausfüllen und einwerfen.  
Teilnahmebedingungen und Informationen zum Datenschutz finden Sie auf [www.mdv.de/low-card](http://www.mdv.de/low-card)

Mo, 17.09. BMW 11:00 – 13:00 Uhr Merea „Marktplatz“, 14:00 – 16:00 Uhr Betriebsrestaurant Porsche 11:30 – 15:00 Uhr, Casino 1  
Di, 18.09. DB Schenker 12:30 – 15:00 Uhr, Kantine Bürogebäude Süd  
Mi, 19.09. Rheanus SE 12:00 – 15:00 Uhr, Besucherparkplatz  
Do, 20.09. DRÄXLMAIER 13:00 – 15:00 Uhr, Besucherparkplatz

Leipziger Unternehmen, Stadt Leipzig, Interreg, etc.

**CLEVER MOBIL IM LEIPZIGER NORDRAUM – SCHNUPPERTICKET GEWINNEN!**

Haben Sie die Europäische Mobilitätswoche genutzt, um sich zu informieren oder etwas Neues auszuprobieren?

Internet: Bus & Bahn genutzt?  Fahrrad genutzt?  Fahrgemeinschaft genutzt?  Nein

Aber: Sie dabei unseren folgenden Angebote genutzt?

Area 01 App: Leipzig Mobil InfoMobil Angebotstermin?  Nein

Nutzen Sie Bus & Bahn regelmäßig für Ihren Arbeitsweg?

Wenn Sie mit Bus & Bahn anreisen (wunder), wie lange dauert Ihre Arbeitsweg und wie oft müssen Sie umsteigen?

Wie können wir konkret noch verbessern?

Angaben: Name:  Straße:  PLZ:  Ort:

**Rückseite ausfüllen und eine 24-Stunden-Karte für 4 Personen für das gesamte MDV-Gebiet gewinnen.**

Interreg, Leipzig, etc.

Competition

**Industriepark Nord mit Bahn und Bus**  
Verbindungen für Mitarbeiter im Industriepark Nord

**Fahrpläne und Preise**

Alle Fahrten sind kostenlos. Die Fahrten sind von Montag bis Freitag von 07:00 bis 18:00 Uhr. Die Fahrten sind von Montag bis Freitag von 07:00 bis 18:00 Uhr. Die Fahrten sind von Montag bis Freitag von 07:00 bis 18:00 Uhr.

**Reisen und Preise für Neu- und Rückfahrten**

| Reiseklasse | Einweg | Rückweg | Tag    |
|-------------|--------|---------|--------|
| Standard    | 1,50 € | 1,50 €  | 1,50 € |
| Business    | 2,50 € | 2,50 €  | 2,50 € |
| First Class | 4,50 € | 4,50 €  | 4,50 € |

Alle Fahrten sind kostenlos.

Information

Announcement

On-site information



# PILOT ACTION: INFORM & ATTRACT

- Disrupt established mobility habits on changing moments in life:
  - Move
  - Job change
  - ...
- Provide Information
  - On time
  - On site
  - Easy and beautiful



@ home



Job interview



Amtec Photos

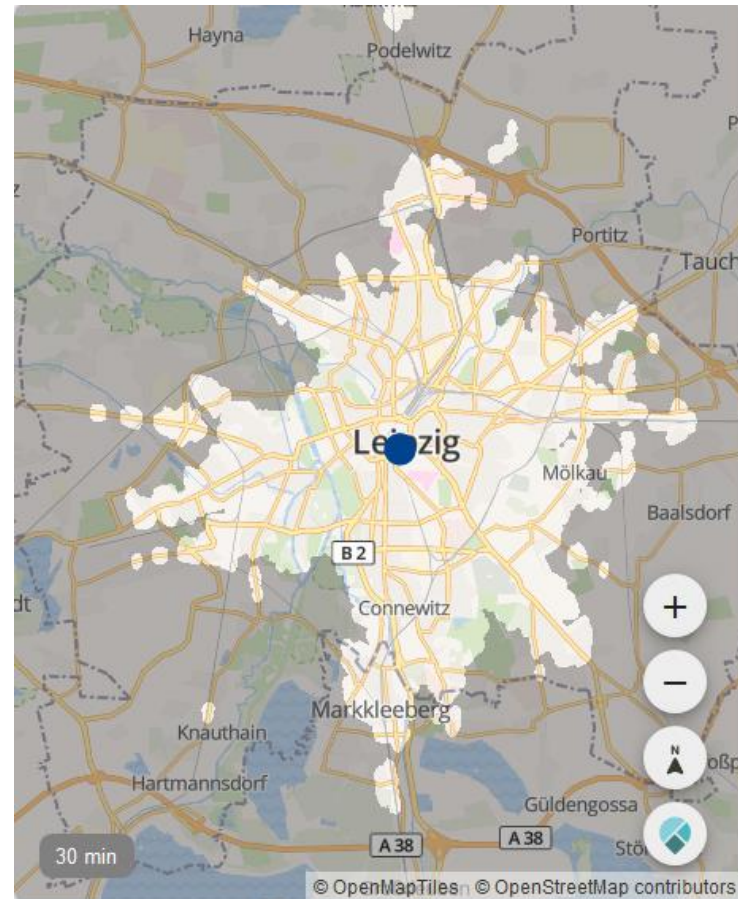
On-Site Information



# ACCESSIBILITY MAP: „REACHIE“

- Travel range by time budget across different travel modes
- Cross-platform (mobile)
- Multi- & Intermodal
  - Pedestrian
  - Bike
  - PT + pedestrian
  - PT + bike
  - Car
- Itinerary
- CO2-calculator
- Coloured mode

[www.mdv.de/reachie](http://www.mdv.de/reachie)





# „REACHIE“: YOUR JOURNEY TO WORK

**Travel settings**

Walk Bike **Transit** Transit + bike Car

Departure date/time  
Transit date  
Mo, 9/16/2019 04 : 40

Show range for: Start Target

Search addresses and locations...

Sellerhäuser Straße 1, 04318, Leipzig, Anger-Crottendorf, Sachsen

Werkstraße F, 04349, Leipzig, Sachsen

**Results**

Export as PDF

Emissions per trip

| Mode    | Emissions [g] |
|---------|---------------|
| Car     | ~1400         |
| Transit | ~1000         |

Potential annual saving 375 kg CO<sub>2</sub>

13.1 km 1 Change 54 minutes  
Walk 7 minutes

Tram 4 Leipzig, Gohlis, Landsberger Str.

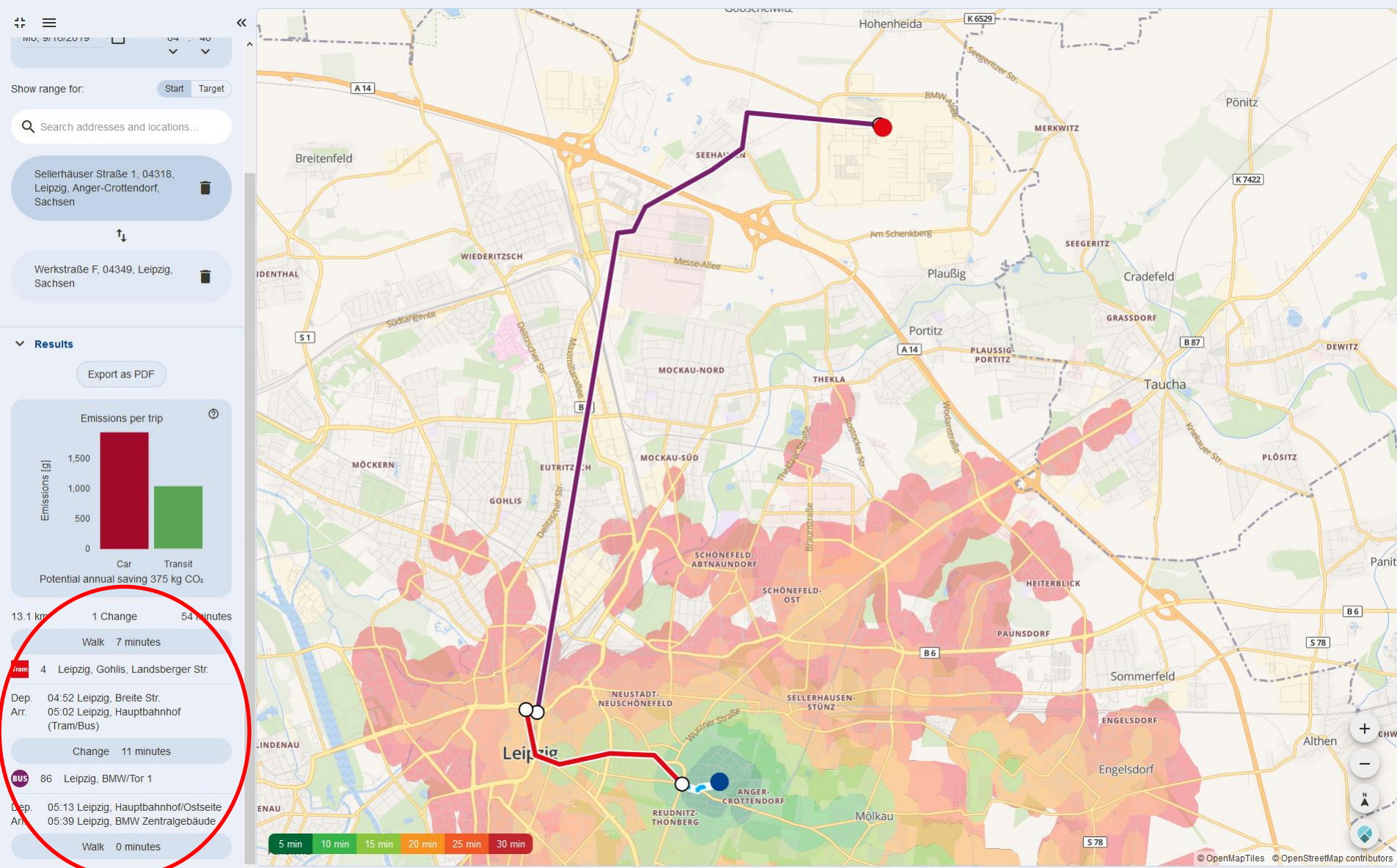
Dep. 04:52 Leipzig, Breite Str.  
Arr. 05:02 Leipzig, Hauptbahnhof (Tram/Bus)

5 min 10 min 15 min 20 min 25 min 30 min

© OpenMapTiles © OpenStreetMap contributors



# „REACHIE“: YOUR JOURNEY TO WORK



# AGENDA

Background

Why we involved  
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Lessons learned

What have we  
learned?



## General aspects



- **Understand** specific needs as a **key**
- Tools and concrete offers help to build up contact
- **Groupmeeting** with all interested companies at one place supports joint understanding
- Use **events** to also **involve the employees**
- **Except** that you can not fulfill **all wishes**
- „Cooperation of the willing“

## Consultation



- **Need** for action and willingness **of change**
  - Mobility of employees as location factor
  - Raise economical impacts of car traffic for companies
- In **consultation**:
- Travel by **PT or bike** to meeting
  - **Clear communication** of your goals and scope
  - **no wrong expectations**
  - **Know the persons** and your supporter

## Marketing



- Raise awareness of **existing offers**
- Design marketing for **needs of your target group**
- **Use events (e.g. EMW)** for contact to employees
- **Announce** your events
- **Offer something** (Prices, tools etc.)
- Continues **communication of change**



# THANKS FOR YOUR ATTENTION



**Robert Schillke**  
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**EfficienCE**

**LOW-CARB**



## Ádám Németh, *SKZT (LOW-CARB)*

Mobility management planning  
for companies in Szeged's  
North Area





TAKING  
**COOPERATION**  
FORWARD



Webinar, 03.06.2020: How can public transport assist companies with mobility management?



## Mobility management planning for companies in Szeged's North Area



Dr. Zoltán Ádám Németh - Szeged Transport Company - chief of public transport and railway safety

# MOBILITY MANAGEMENT PLANNING FOR COMPANIES IN SZEGED'S NORTH AREA

1. Challenges in Szeged's North area from SZKT perspective

2. Action plan - preparation and stakeholder involvement

3. Analysis of workplace mobility situation

4. Action plan - resulting Public Transport Measures

5. Lessons learned





# MOBILITY MANAGEMENT PLANNING FOR COMPANIES IN SZEGED'S NORTH AREA

## 1. Challenges in Szeged's North Area from SZKT perspective



# CHALLENGES IN SZEGED'S NORTH AREA FROM SZKT PERSPECTIVE

## Importance of mobility management measures in the area:

- dynamically developing field
- number of companies increase (e.g. Pick, ca. 3000-4000 employees)
- less public transport service (just bus)
- neglected bicycle network

## Challenges:

- different type of companies: supermarkets, manufacturing companies, smaller employers, research institute
- car preferred infrastructure



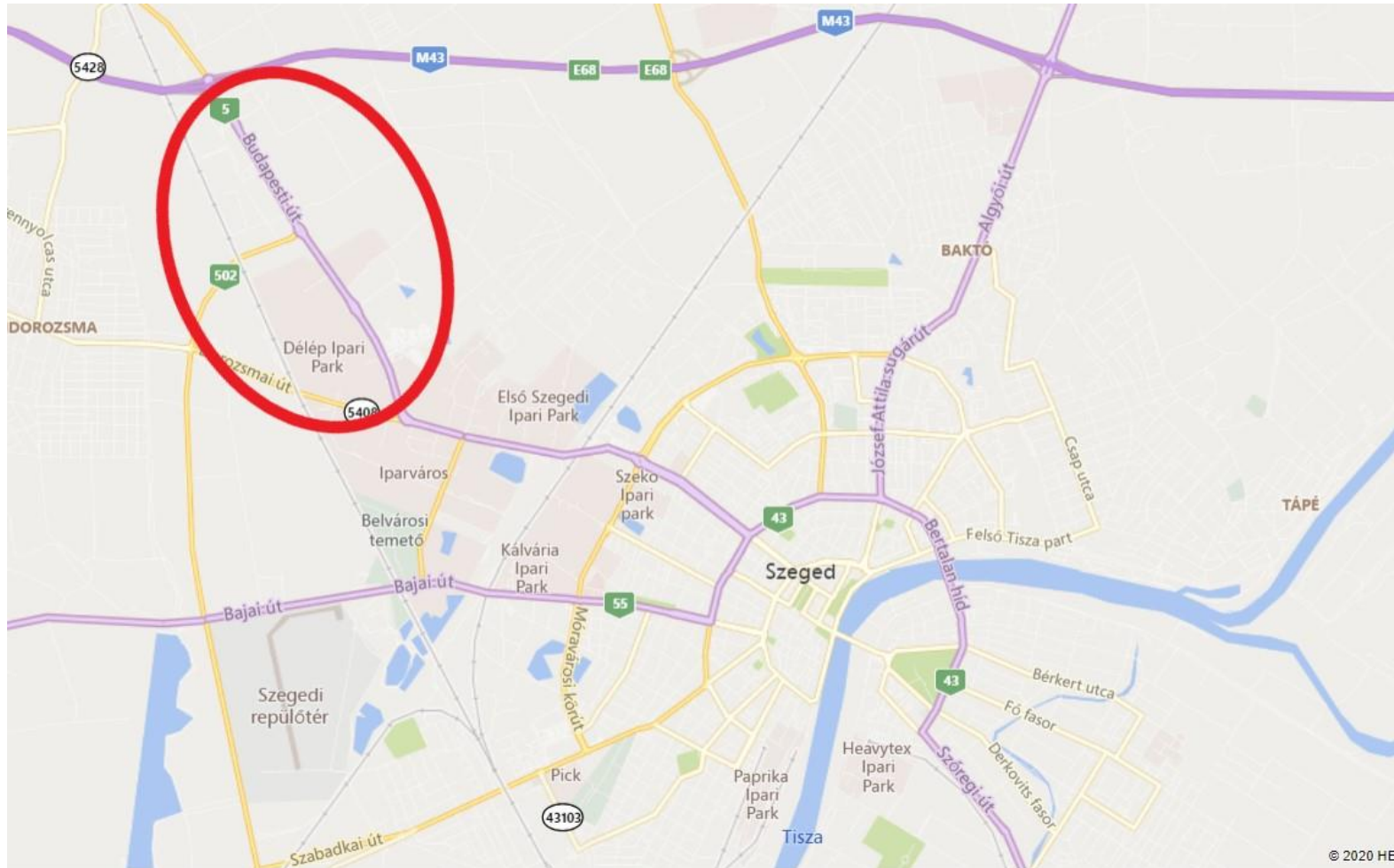
# MOBILITY MANAGEMENT PLANNING FOR COMPANIES IN SZEGED'S NORTH AREA

## 2. Preparation and stakeholder involvement



# PREPARATION AND STAKEHOLDER INVOLVEMENT

## Szeged Functional Urban Area



# PREPARATION AND STAKEHOLDER INVOLVEMENT

## Szeged Functional Urban Area





# PREPARATION AND STAKEHOLDER INVOLVEMENT

**Preparation:** in cooperation with a transport developing expert company, in accordance with Szeged SUMP

1. field assessment
2. company classification
3. first contact with the relevant employers
4. mobility event: general information about the project, objectives, expected results
5. nominate company mobility managers

## **Stakeholders:**

companies in the area, municipality, university



# MOBILITY MANAGEMENT PLANNING FOR COMPANIES IN SZEGED'S NORTH AREA

## 3. Analysis of workplace mobility situation



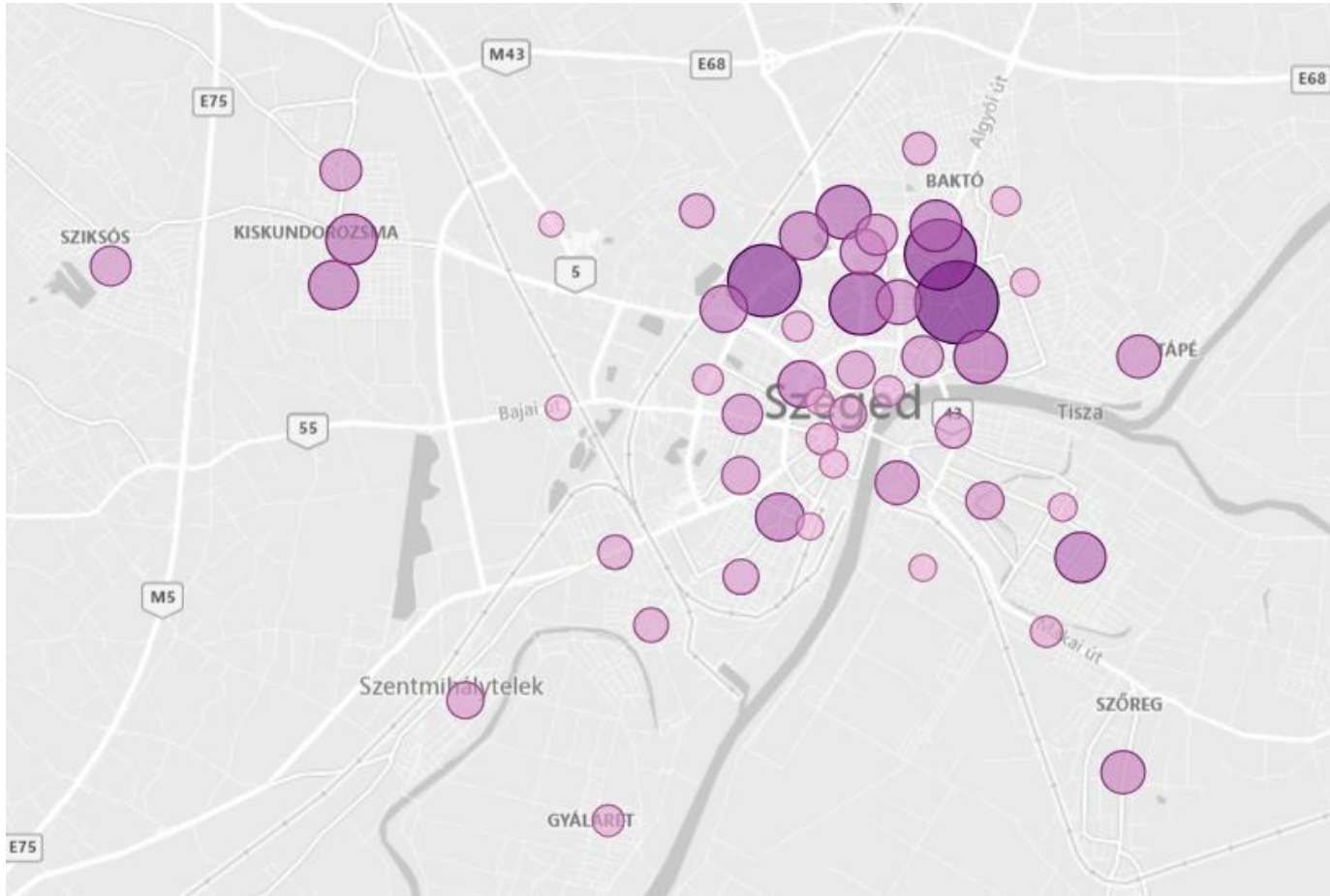
## SURVEY WITH QUESTIONNAIRES:

- paper based and online
- target groups: employees and employers
- 23 companies, 3007 employees in the FUA/area
- 1106 completed employee questionnaires
- **actual and desired future means of transport**
- companies interested in the final results of the survey
- strong trust in the development of public transport and cycling
  
- different levels of cooperation → many of them do not trust in some projects
- we do not know the top managers' strategic view



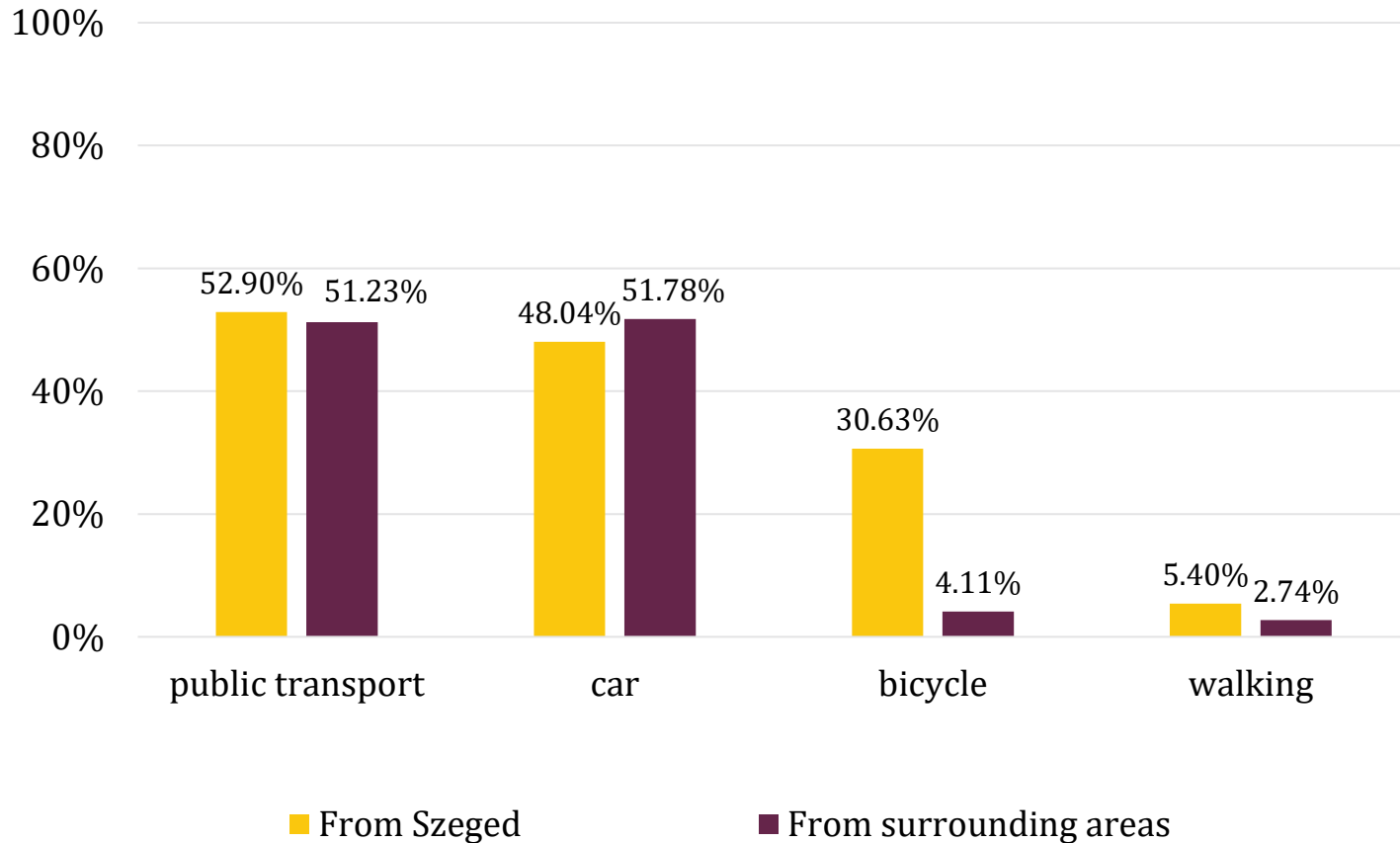
# ACTION PLAN FOR COMPANY MOBILITY MANAGEMENT

## Place of departure of responders living in Szeged, by district



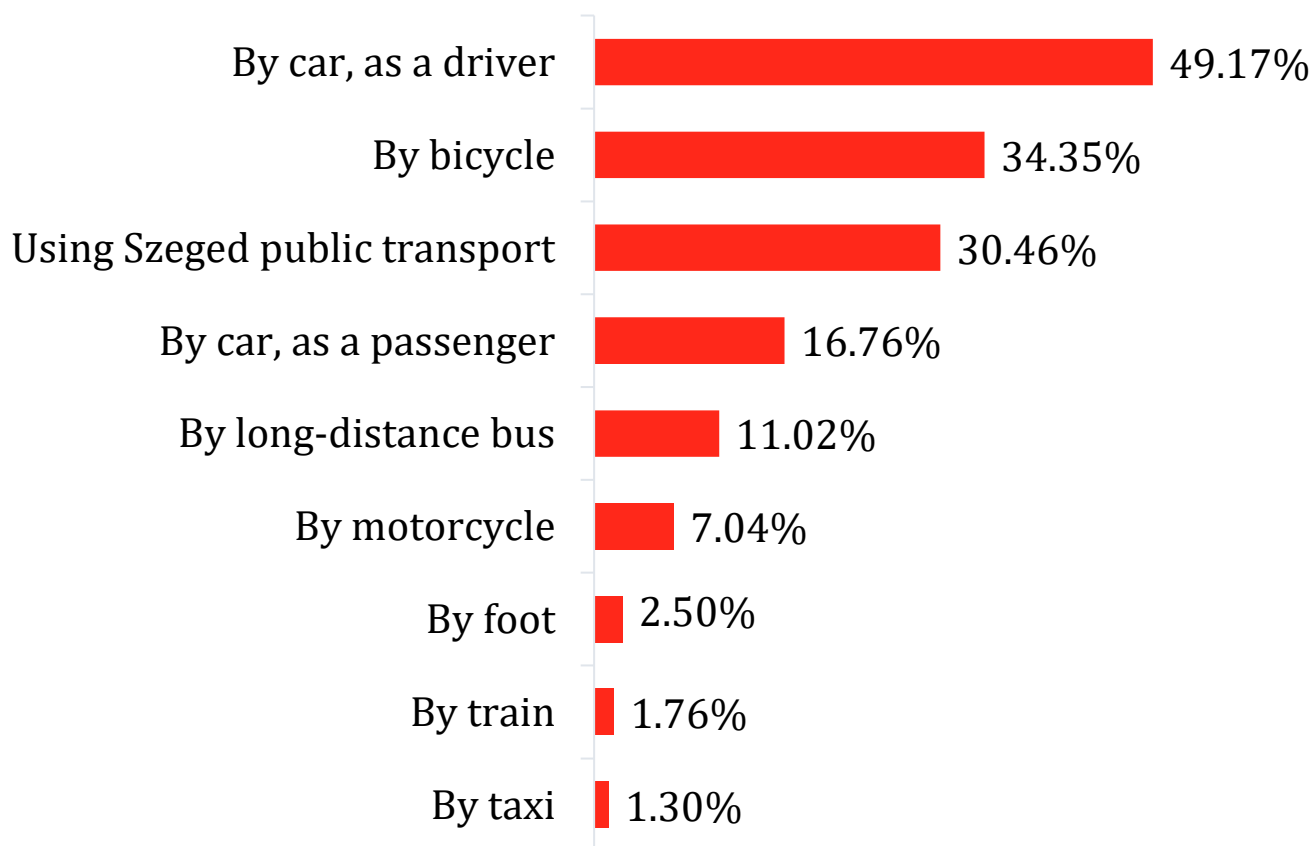
# ANALYSIS OF WORKPLACE MOBILITY SITUATION

## How Szeged and non-Szeged responders use means of transport to travel to work

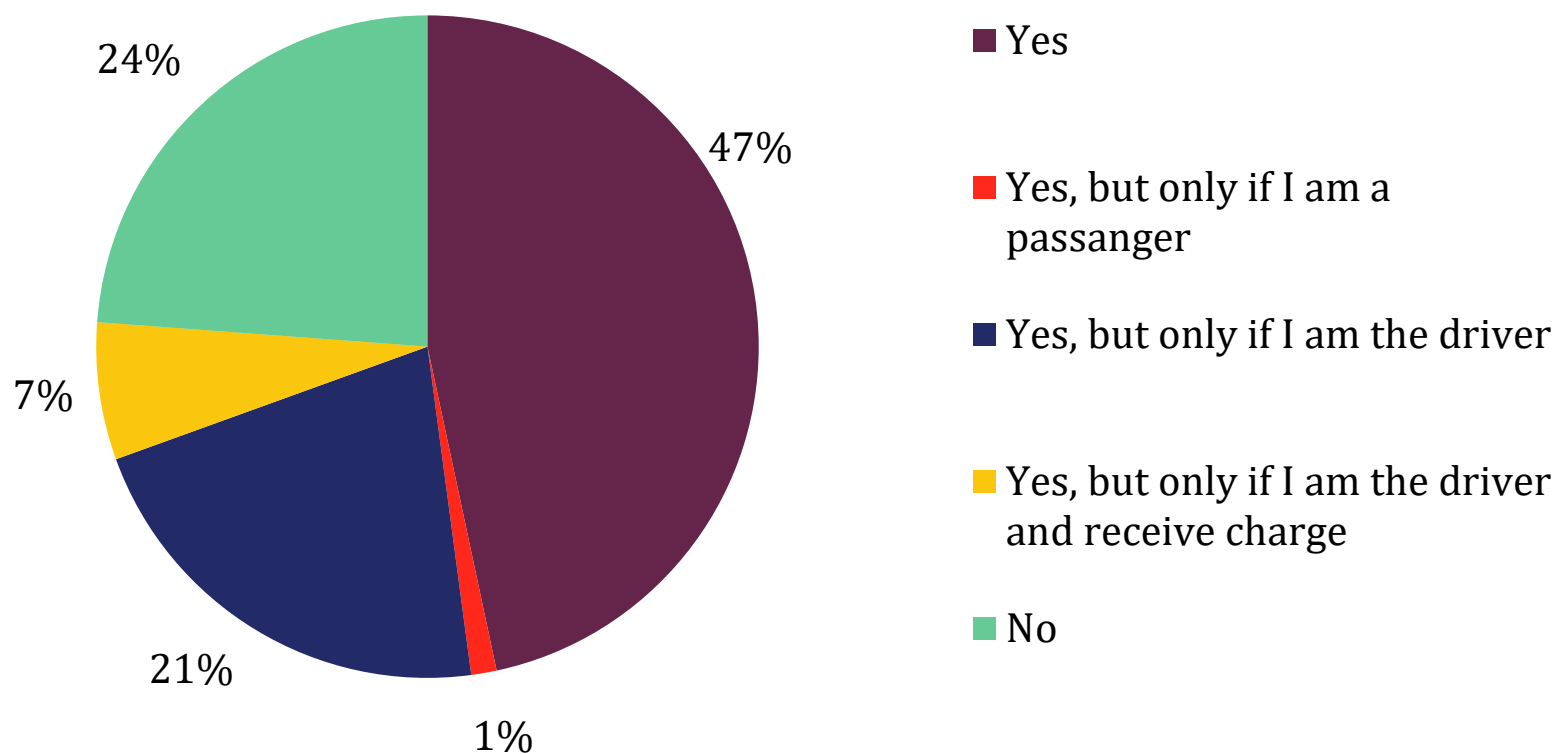




## Desired future means of transport



## Willingness for car-sharing



# ANALYSIS OF WORKPLACE MOBILITY SITUATION

- 1106 completed employee questionnaires: 67% from Szeged, 33% from surrounding areas
  - respondents 53% physical worker, 47% intellectual worker
  - 386 employee travel only with public transport: 61% from Szeged, 39% from surrounding areas
- 
- 70% of physical worker using public transport
  - 84% of physical worker from Szeged surrounding areas using public transport
  - 61% of physical worker from Szeged using public transport
- 30% of intellectual worker using public transport
  - 16% of intellectual worker from Szeged surrounding areas using public transport
  - 38% of intellectual worker from Szeged using public transport



## MAIN GOALS AND MEASURES

- Develop public transport and cycle paths network based on the findings of the survey
- Harmonize with Szeged SUMP - renewable and CO2 reduced energy source
- Sustainability and environmental awareness



## Wi-Fi based passenger counting system

- In relation with Low-Carb project
- Counting based on MAC ID
- Ensure a wide range of options for improved planning, optimisation and evaluation of the entire traffic network.

### Other counting options:

- Manual passenger counting: not generalizable, shows only the current situation
- Check in - check out system: expensive infrastructure
- Cameras: resource requirements, GDPR





## Wi-Fi based passenger counting system

How can you use the data?

- real time data - real time public transport planning
- efficiency
- making forecasts
- combine with other counting options (camera in stops)



# MOBILITY MANAGEMENT PLANNING FOR COMPANIES IN SZEGED'S NORTH AREA

## 4. Action Plan - resulting public transport Measures



# ACTION PLAN - RESULTING PUBLIC TRANSPORT MEASURES

## Action plan for Szeged's North Area

- 60 measures in 10 groups: city level, public transport, cycling, road connections, car-sharing, green measures

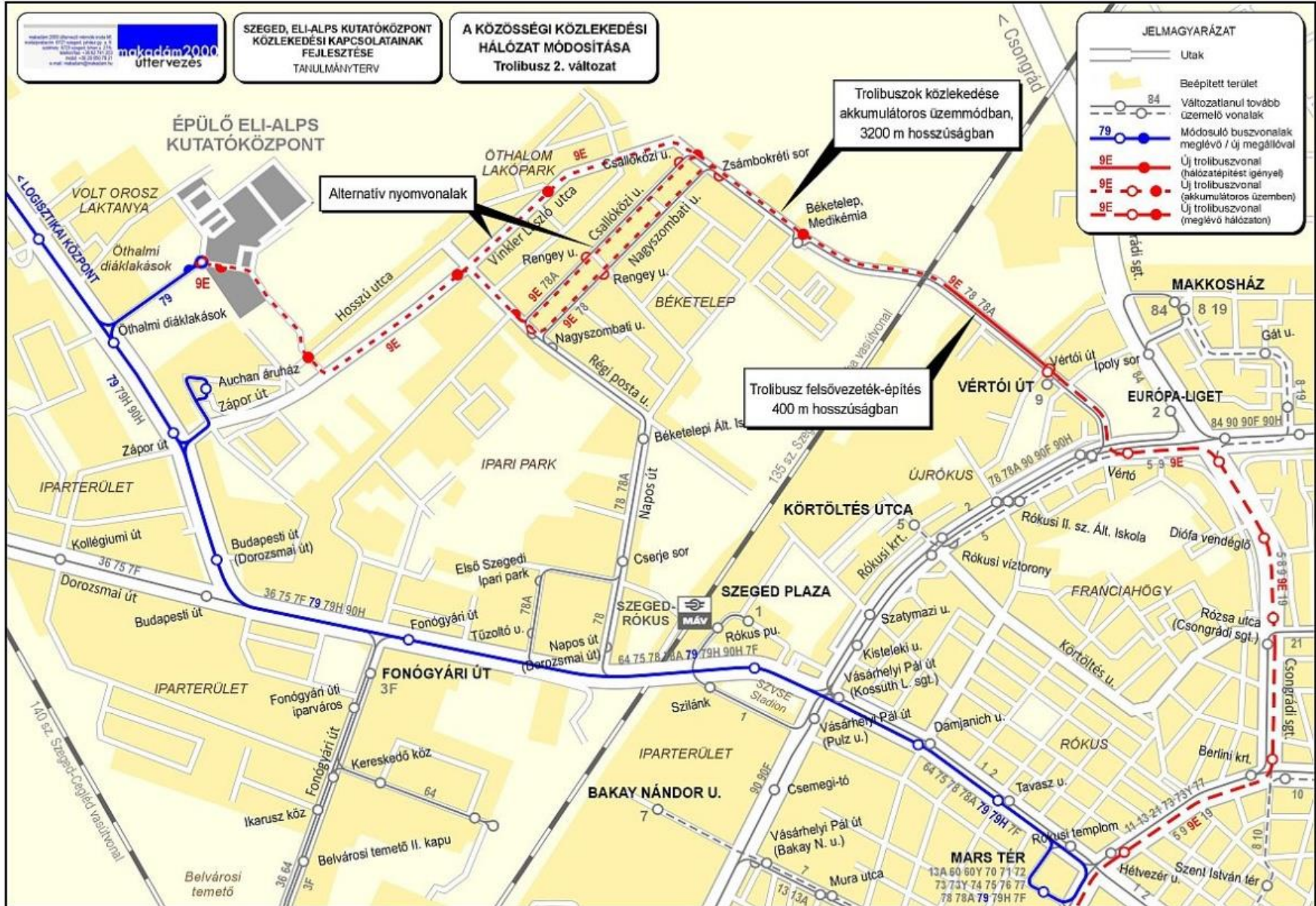
### Priority actions:

- schedule harmonization/synchronization
- building bike paths
- new bicycle storages
- trolleybus network development
- new stop
- ticket vending machine installation
- developing passenger information system



# POSSIBLE TROLLEYBUS NETWORK IN SZEGED FUA

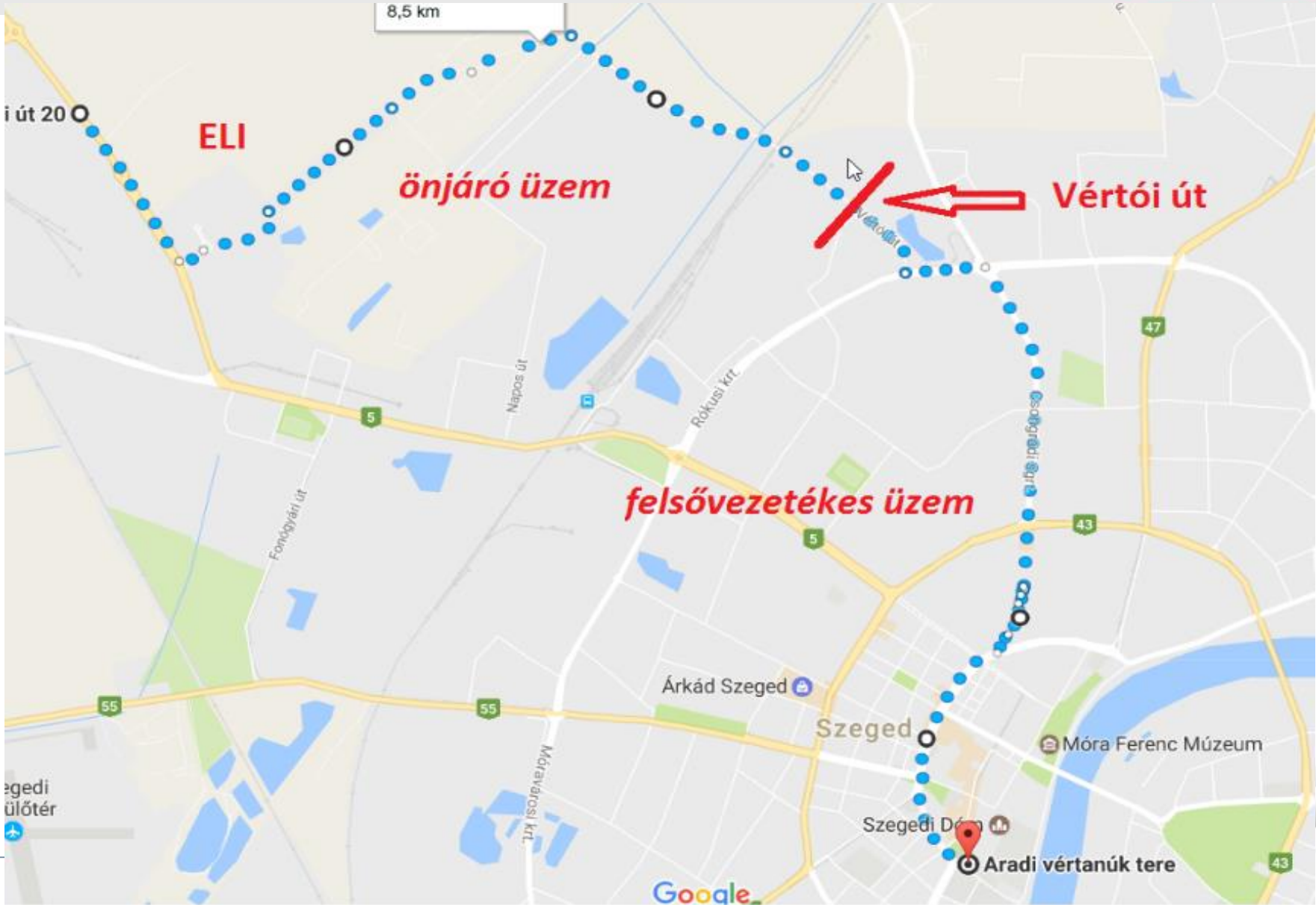
**LOW-CARB**





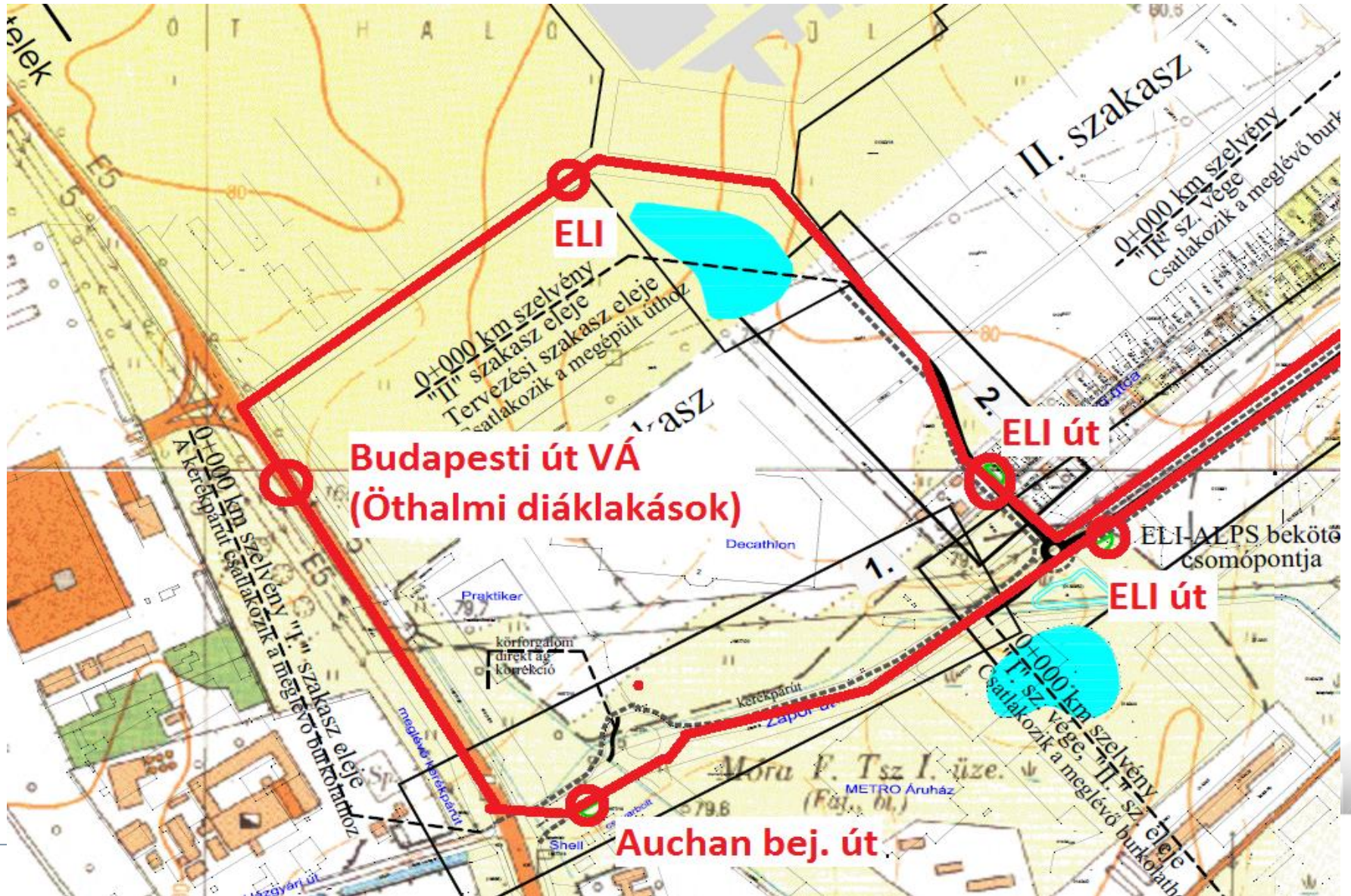
# POSSIBLE TROLLEYBUS NETWORK IN SZEGED FUA

**LOW-CARB**





# POSSIBLE TROLLEYBUS NETWORK IN SZEGED FUA





# POSSIBLE TROLLEYBUS NETWORK IN SZEGED FUA

- battery hybrid trolleybuses
- in-motion charging
- new trolleybus line between the city centre and the industrial area
- direct connection with the most frequent areas (Rókus, Makkosház)
- half of the route without wire
- electric infrastructure development is necessary
- most environmentally friendly solution



# MOBILITY MANAGEMENT PLANNING FOR COMPANIES IN SZEGED'S NORTH AREA

## 5. Lessons learned



- special area - special approach required for PT planning
- taking into account the diversity of companies
- close cooperation
- repeat the survey to assess current situation
- bigger accent on cycling
- important to coordinate with long distance bus lines
- develop passenger information system in the area



# Thank you for your attention!



# Closing Remarks

- Follow-up email will include a link to download the slides
- Please complete our feedback survey (< 2 mins) at the end of this webinar or in the follow up email later today

