



**CISMOB**  
Interreg Europe



# CISMOB

Cooperative information platform for low carbon  
and sustainable mobility – Pilot action on Real  
time Information for public Transport

Aveiro

Jorge Bandeira

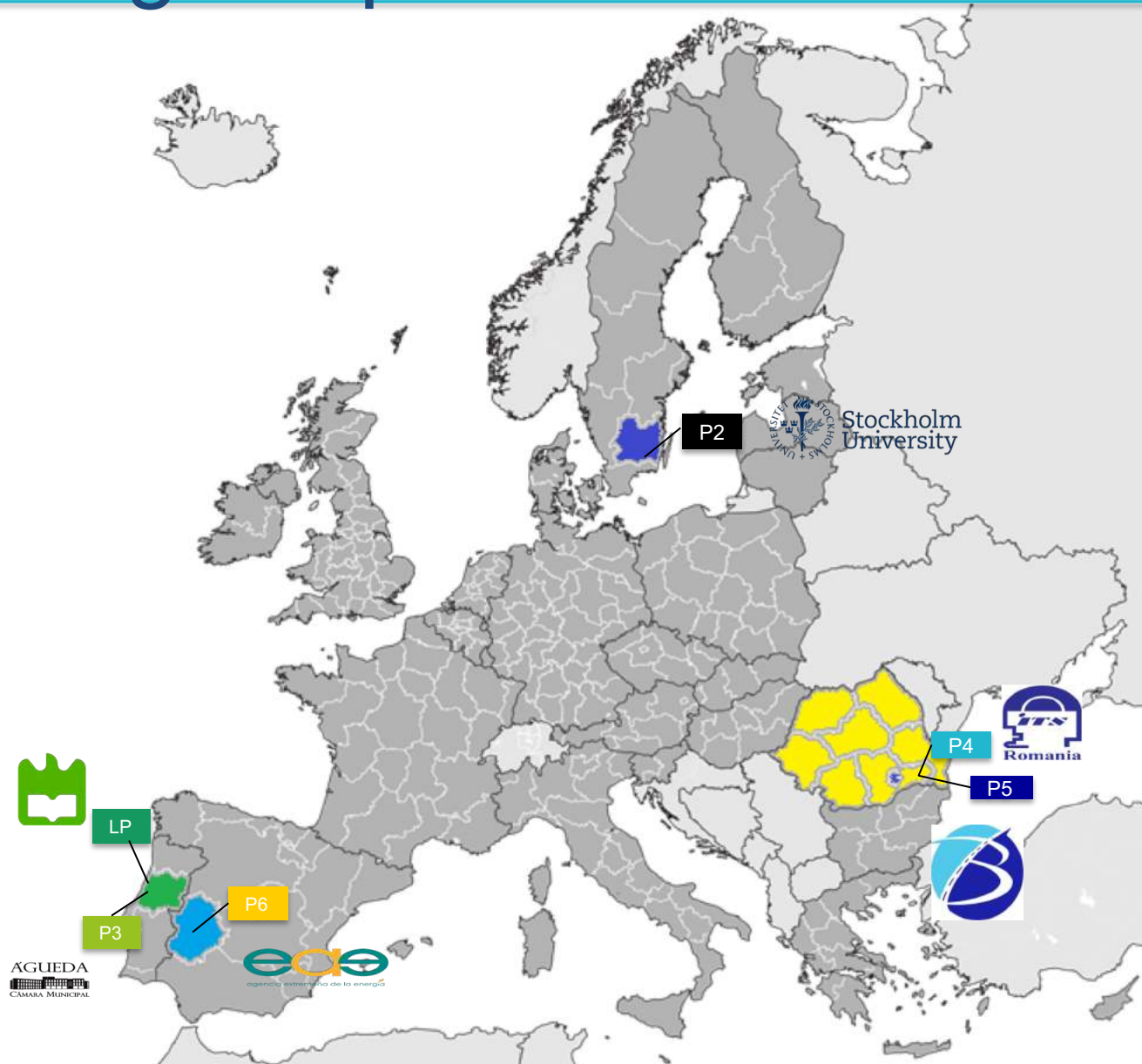
# Main vision

**Improving policy instruments** to take advantage of new ICT, digital and interoperable platforms to increase the efficiency in the use of transport networks.



# Learning with good practices

Emissions from  
road traffic cost  
**> 4 445  
MEUR/year to  
CISMOB region's  
economy.**



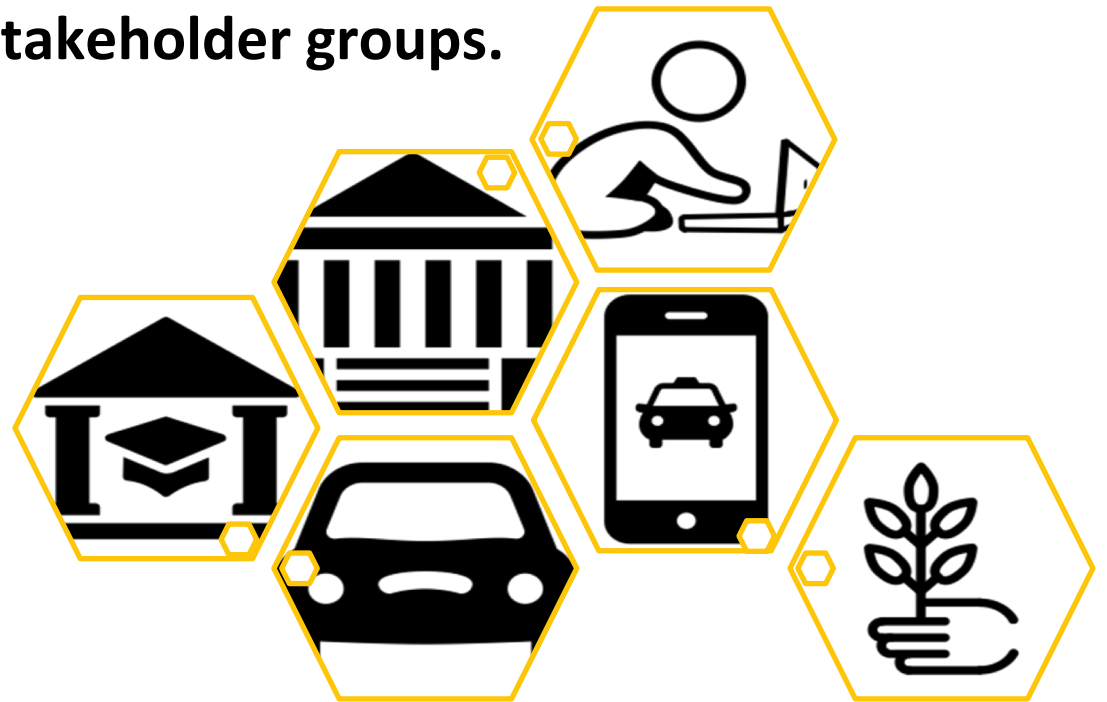
# 30 Exchange of experience events



# + 1000 participants



+ **75** institutions (universities, industry, ICT companies, transport operators, SMEs, local and regional managing authorities, environmental associations) regularly participated in **regional stakeholder groups**.



First pilot action  
approved by the JTS

# Nominee

PROMOTING DIGITAL TRANSFORMATION

**Category** 1

**REGIOSTARS**  
2019

1011

@

</>

European Commission | Regional and Urban Policy

The image is a dark blue graphic for the REGIOSTARS 2019 competition. At the top left, a yellow banner reads 'PROMOTING DIGITAL TRANSFORMATION'. Below it, the word 'Category' is written in yellow, followed by a large, textured number '1'. In the center, the text 'REGIOSTARS' is written in white, with '2019' below it. A yellow circular path surrounds the central text, featuring icons: a lightbulb on the left, a cloud with circuit lines at the top, a computer monitor with code symbols on the right, and an '@' symbol at the bottom. The number '1011' is written in yellow at the top right of the path. At the bottom left, the European Commission logo is shown next to the text 'European Commission | Regional and Urban Policy'.



# 9 Technical papers

1 Baseline Assessment Report

1 Agenda



CISMOB - Cooperative information  
platform for low carbon and  
sustainable mobility

ICT towards low carbon and  
sustainable mobility  
– a multiscale perspective



# Policy improvement 4 Action plans

# Policy instruments



**1 OP CENTRO 2020**



**2 Sustainable Mobility Strategy  
for the Municipality of Águeda**



**3 Romania Operational Program  
2020**



**4 Extremadura Operational  
Program 2020**



# Territorial impact



**EXTREMADURA (1,078 million)**



**CENTRO 2,3 million**



**STOCKHOLM (AP)**



**AGUEDA**



**ROMANIA (19.6 million inhabitants)**



**BUCHAREST**



# Thank you

Jorge Bandeira  
Margarida Coelho  
Carlos Borrego  
João Paulo Barraca  
José Paulo Santos  
Nélia Silva

Eloísa Macedo  
Carlos Sampaio  
João Paulo Teixeira  
João Alegria  
Laura Silva  
Bárbara Jael  
Pavlos Tafidis  
Smriti Dutta

Cecília Estevão  
Carla Carapinheira  
Luísa Sal

Tânia Barbosa  
Cátia Pôncio  
Cecília Marques  
Maria Relvas





# CISMOB

Cooperative information platform for low carbon  
and sustainable mobility

– Policy improvement **CENTRO REGION**

Jorge Bandeira

# Background

**Population: 2,3 M**

**Area (28 405 km<sup>2</sup>) – 31/% PT**

**Density (75 inhab/km<sup>2</sup>)**

**SUMP NUT III**

**Polycentric urban structure**

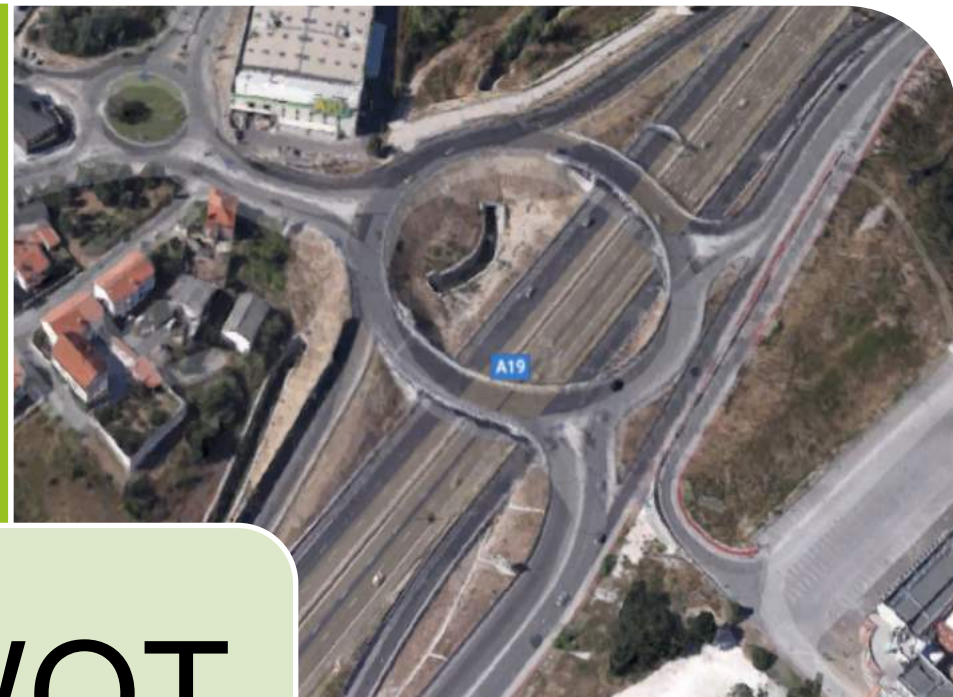
**Private car used in 70% of  
commuting trips (62% Portugal)**





# Strengths

- Road network
- Bike sharing (plans)
- New transport on demand
- Good primary rail connections
- SUMPs
- Research units
- Bicycle industry cluster



# SWOT





## Opportunities

High Potential for modal transfer

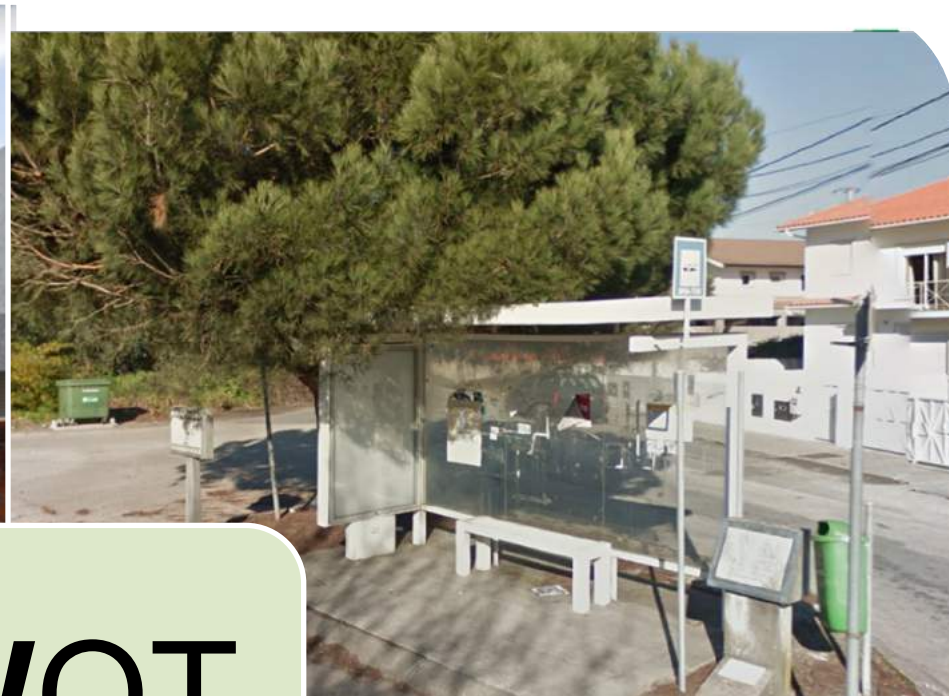
High qualified staff research Institutions (urban planning, transport and environment, ICT)

Regional Policy Framework committed to CO2 reduction

SWOT



CENTRO  
2020



# SWOT

## Weakness

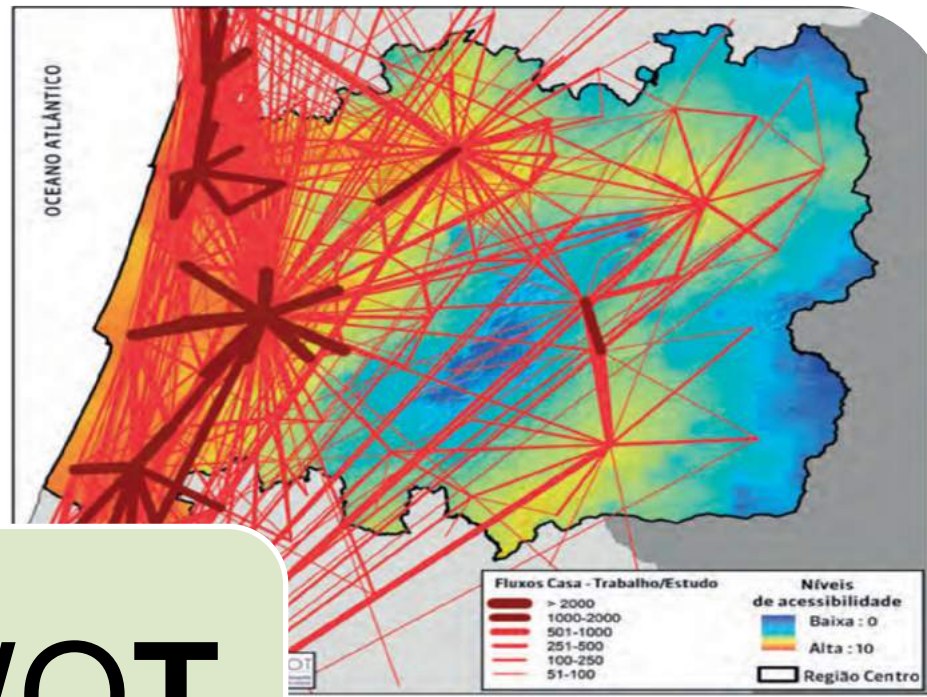
Urban sprawl – Poor urban planning in suburban areas

Lack of intermodal physical and soft platforms, Integrated ticket systems

Inefficient road pricing schemes

Road safety





# SWOT

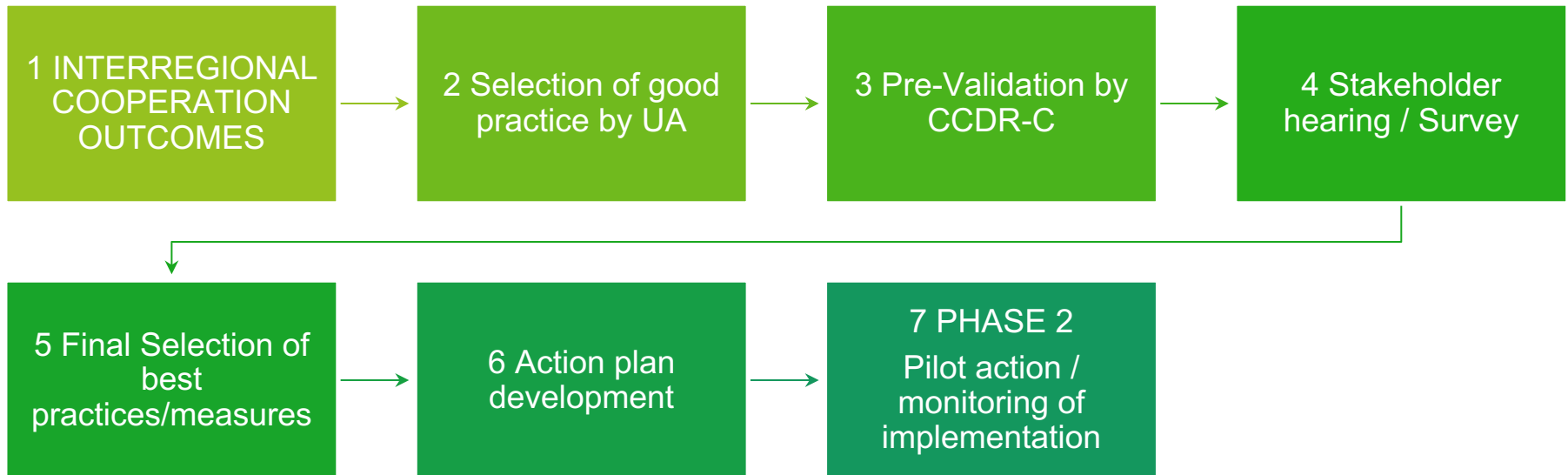


## Threats

Critical thinking / Population ageing in several areas,  
Territorial dispersion - Low density - desertification  
Lack of integrated regional planning

# New potential measures for AP

**CISMOB regional process for selection new areas to be included in OP CENTRO 2020.**



Action plan

Promotion of  
Smart and  
Connected  
Mobility

Improving  
quality of  
cycling  
experience

Improving  
quality of  
information of  
PT

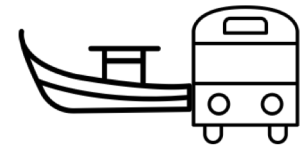
Dissemination  
More projects

New Project  
Evaluation  
Criteria

Pilot Action

# Better management

- Prioritizing the investments that use road accident data to support route cycle lanes,
- Adjust the criteria for the relative reduction of carbon emissions,
- Include “**other modes of transport**” besides road and rail on intermodal communication platforms,
- New criteria to award projects that include open data platforms and real-time information systems,
- Include an evaluation bonus for projects involving senior **citizen assistive technology**, including service alerts and information for vulnerable users, simplified and/or passive ticketing systems.



# Pilot action

## Real time info in PT



Jorge Bandeira  
Eloísa Macedo  
Carlos Sampaio  
João Paulo Teixeira

João Paulo Barraca   Myrsini Glinos  
Bárbara Jael  
João Alegria





# Good practices



## Trafiklab - Together we create the future of public transport

08/02/2018

Trafiklab is a community for open traffic data, mad...

**Location:** Mellersta Norrland, Sweden (Sverige)

Bringing innovation  
to market,  
Innovation in sector  
(transport),  
Entrepreneurship  
(business)



## Opendata Cáceres

08/06/2018

Open data platform about public transportation se...

**Location:** Extremadura, Spain (España)

open data,  
Transport, Open...



## Timisoara Public Transport Management System - PTMS

04/04/2018

RATT manages an integrated PTM system for its fle...

**Location:** Vest, Romania (România)

e-ticketing, public  
transport  
management,  
traveller  
information,  
intelligent transport

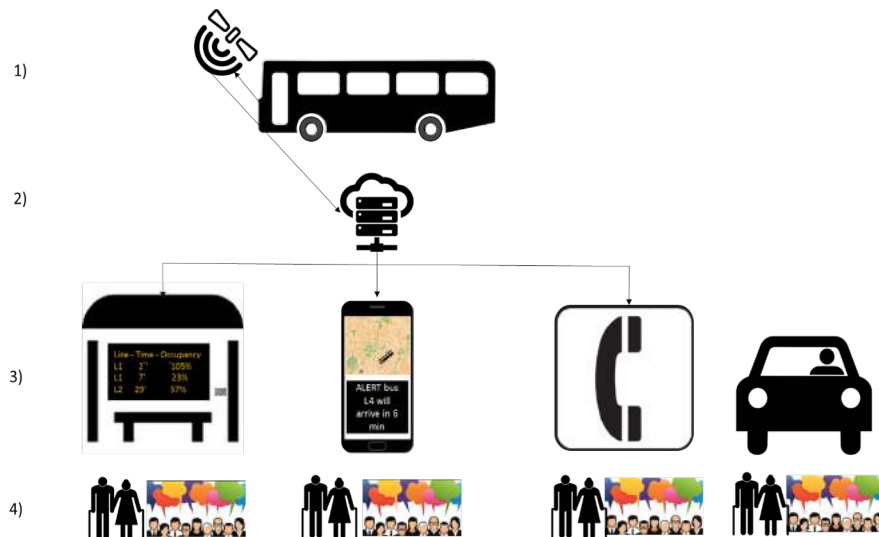


# Designing a pilot action

Objective: Improve the implementation of inspiring GPs, considering the demographic and socioeconomic contexts of the Centro Region

## Expected impacts:

- **Better governance** → new evaluation criteria
- **Societal impacts** → new ICT solutions positively evaluated by citizens,
- **Higher visibility of the project,**
- **Higher interest of regional players in replicating related GPs** → + projects.



# Pilot case studies

**CANTANHEDE**  
**OPERATOR URBIN**  
**1 BUS**  
**8 LINES**  
**10 000 passengers per year**



Linhas de Cantanhede (UrbIn)



**COIMBRA PARADELA PENACOVA**  
**5 BUSES**  
**1 LINE**  
**100 000 passengers per year**



# STATED PREFERENCE SURVEY

## TARGET

Citizens from Stockholm and Centro Region (Aveiro, Cantanhede, Penacova and Coimbra)



## OBJECTIVE

to evaluate which information platforms and types of information on public transport are preferable among different segments of the population

## UNIVERSE

~ 700 respondents both online and in person

## STRUCTURE

- socio-economic information

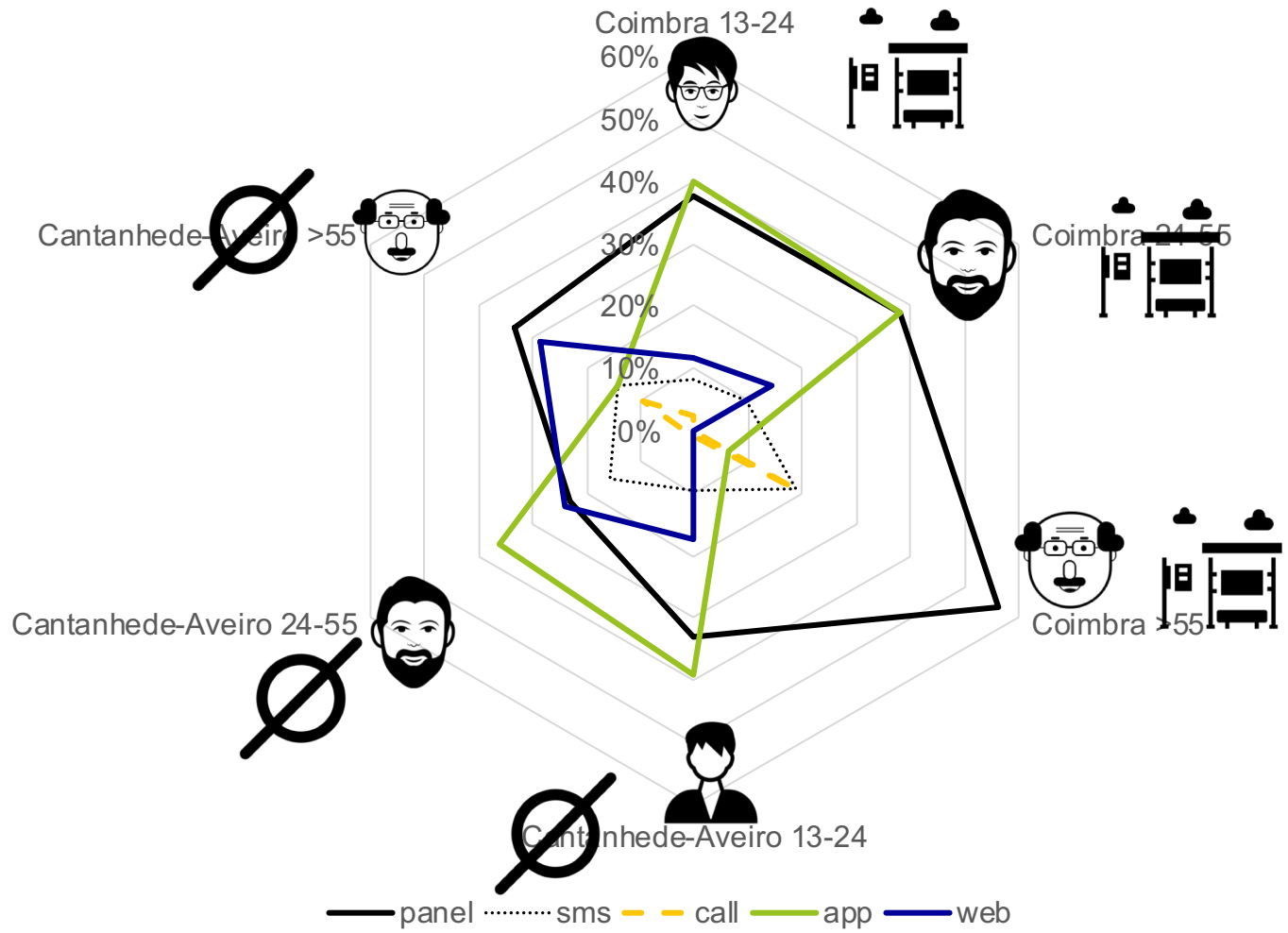


- current travel behavior (location of daily trips, transport mode)

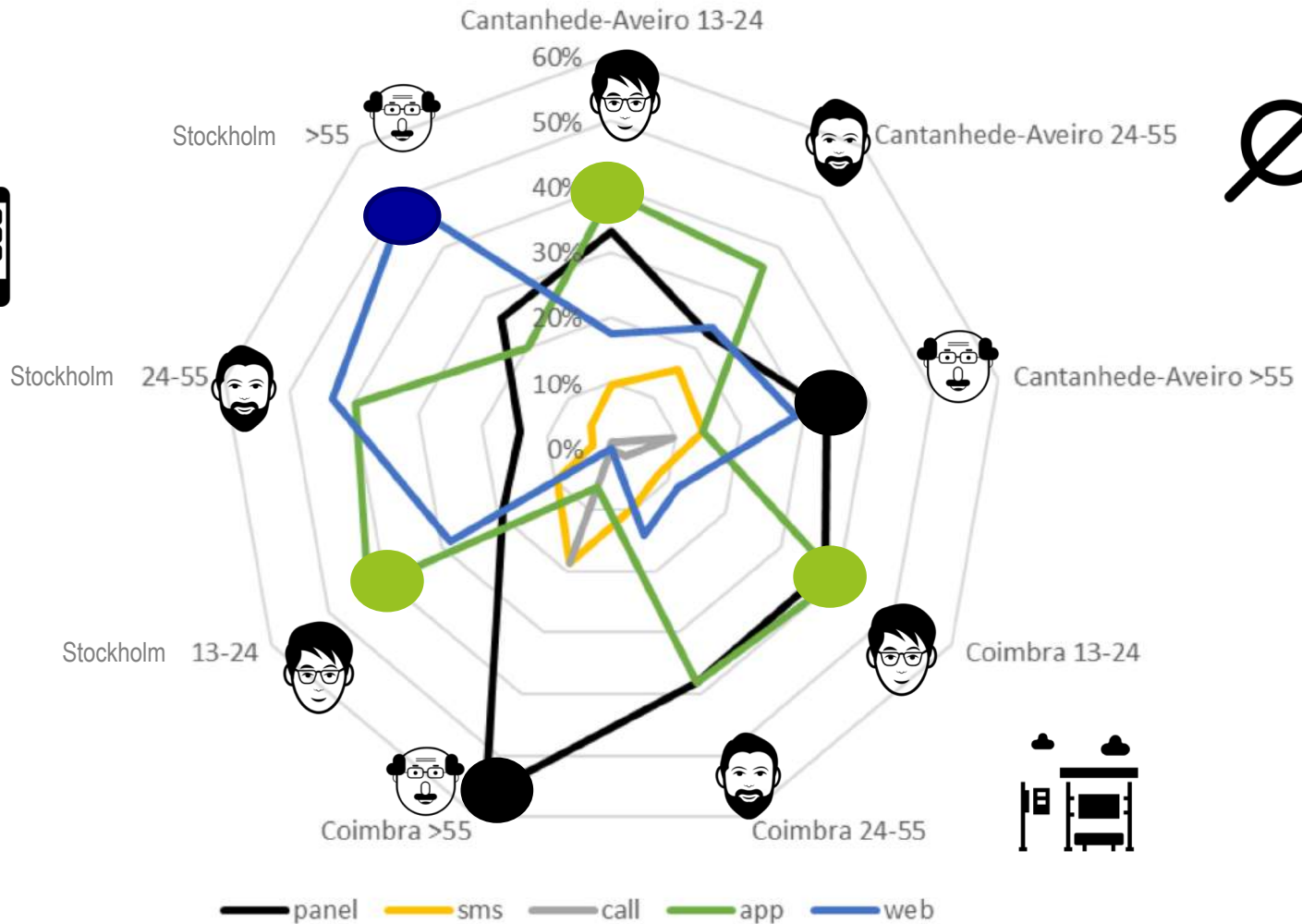
- diagnostic information



# Stated preference Survey



# Stated preference Survey



# E-solar paper



# Cantanhede Centro





# Coimbra - Paradela

Coimbra

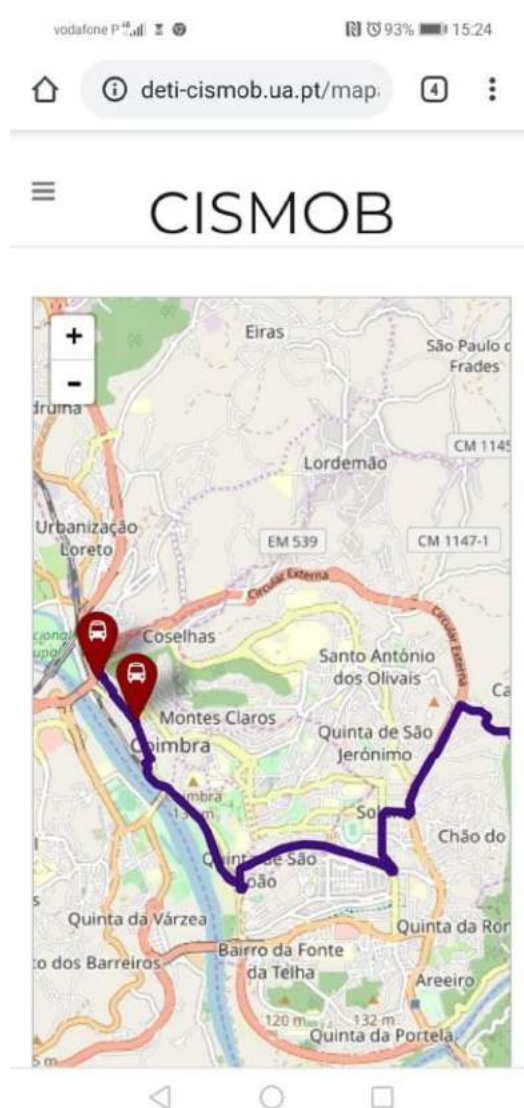
Roxo, 532 m



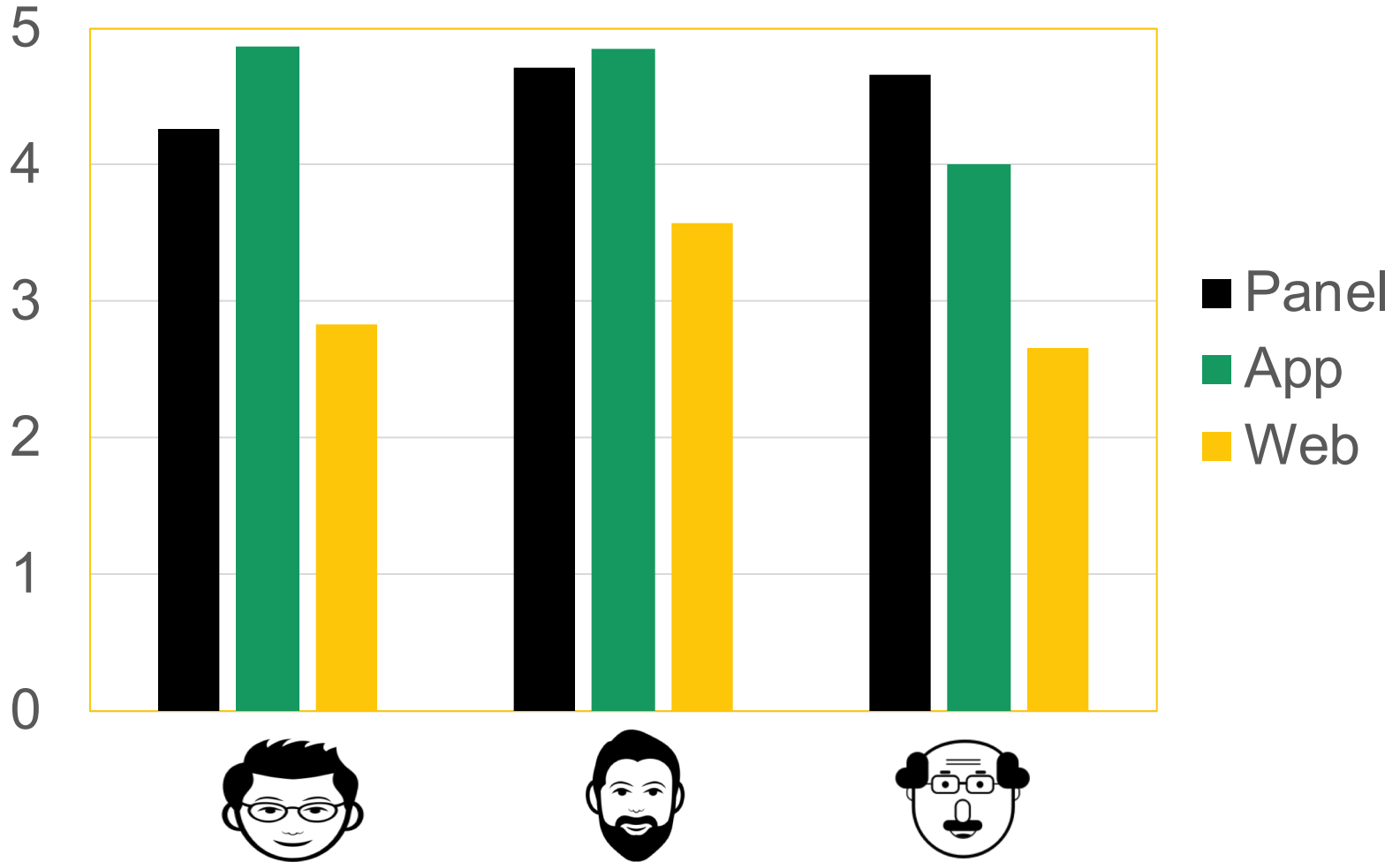
# Roxo, Lorvão Municipality of Penacova



# App and Desktop

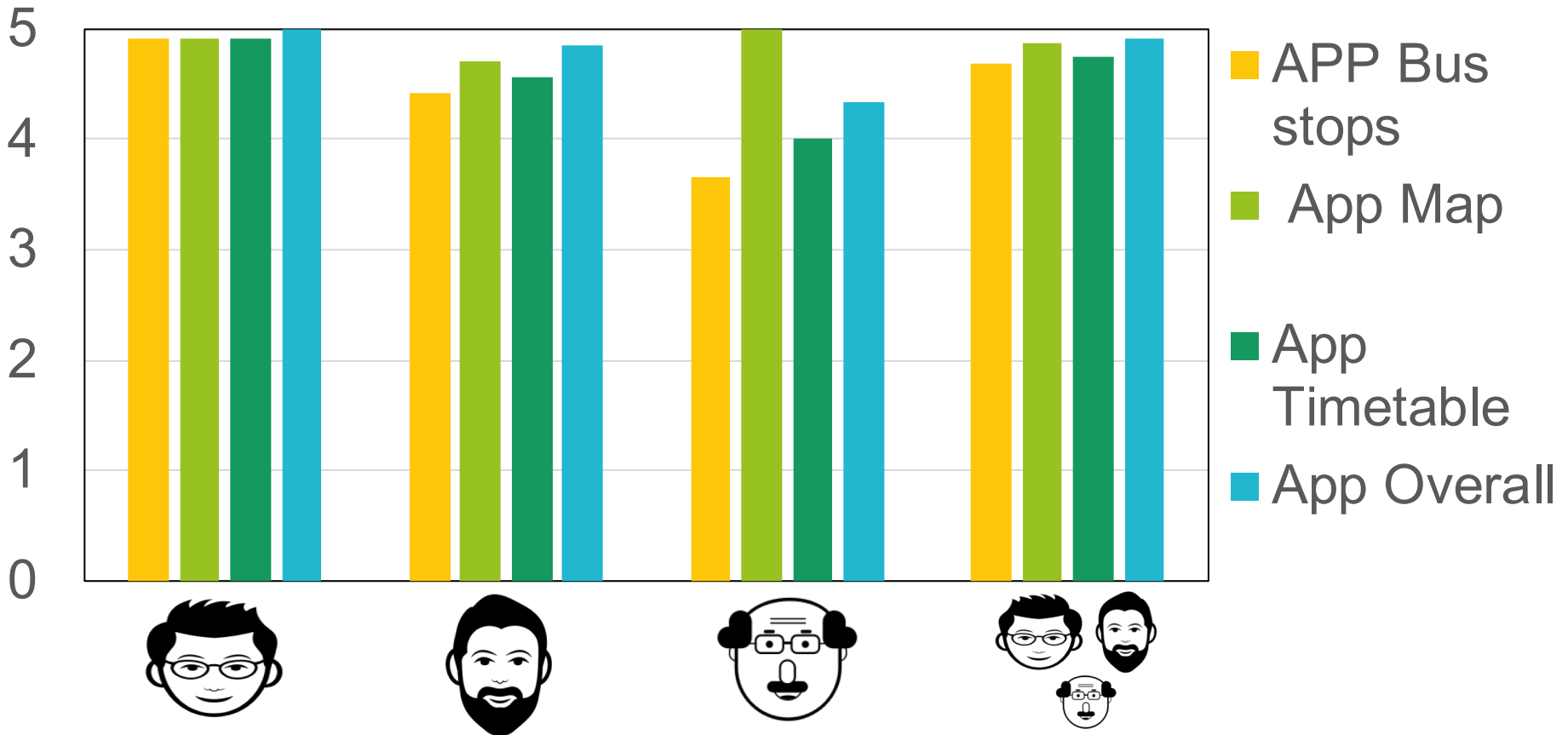


# Revealed preference survey



Usefulness of information systems

# Revealed preference survey



**Usefulness of APP features**

# Preliminary conclusions

- **Smartphone dissemination is the most voted solution by people from 17 to 55 in Portugal and high qualification levels**
- **Panels in bus stops are the second most appreciated solution by people until 55 and the most appreciated by people over 55**
- **Web-desktop solutions are well appreciated in locations where this kind of information is available (Stockholm) 35-55**
- **Clear rules need to be laid down in the specifications of PT tendering**
  - **standard formats and data (timetables, position etc)**
  - **all fleet with GNSS devices**

**Cooperation works!**

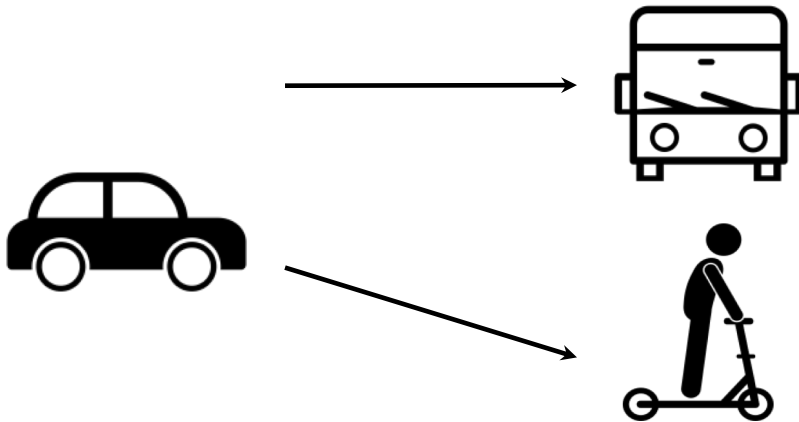
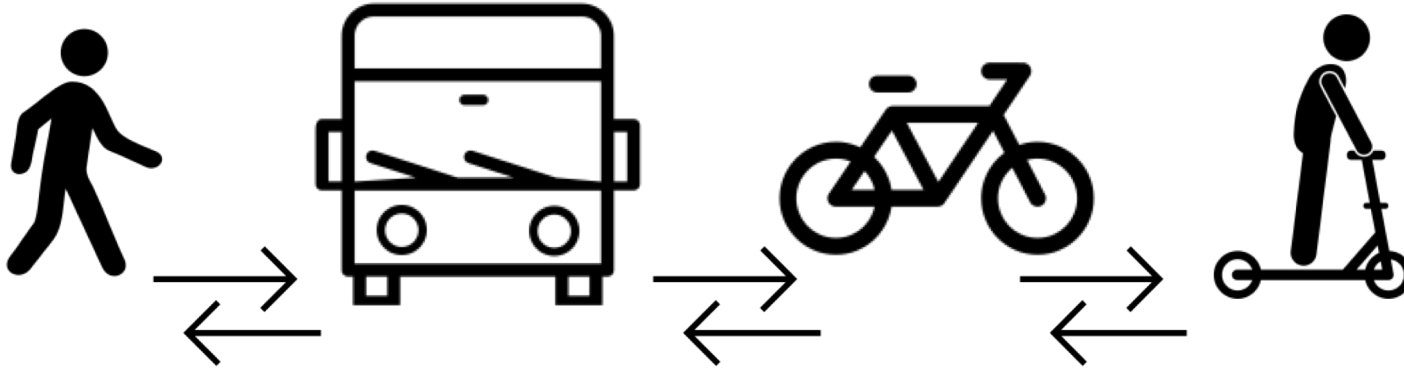
# **Need to adapt technology to local socio-economic context**





**Unrealistic targets =  
unrealistic assumptions =  
real disappointment**





**“Fancy” policies on smart cities/digitalization/ICT must be consistent with policies to discourage the use of individual transport**



Thank you

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