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CAMPus sustainable University mobility plans in MED areas

Studying Sustainable Mobility in University Campuses

- Quantitative data analysis
- Qualitative information analysis
- SWOT Analysis
- GAP Analysis
- State of the art

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Valencia, 27th March 2018

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Objectives

- Each project partner analyzed its framework site in order to obtain a defined **state of art of data, policies and planning instruments** with regard to mobility to/from/inside the Campus and its integration with urban mobility
- Collection of **Quantitative** data and **quantitative** information
- Implementation of **SWOT** and **GAP** Analysis

Partners

- National Technical University of Athens
- Magna Graecia Foundation Catanzaro University
- University of Malta
- University of Valencia
- University of Split
- University of Cyprus
- University of Bologna

Methodological approach

Brainstorming → Survey and interview design → Participants university and experts' selection

Survey execution → SWOT Analysis / GAP Analysis → Results Synthesis

Project co-financed by the European Regional Development Fund

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Project Nb. 1MED15_2.3_M1_238

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Deliverable D3.2.1: Quantitative data

Work Package	WP3: Studying
Version	16
Status	Final
Authors	P. Papantoniou, E. Vlahogianni, G, Yannis, V. Papaleo, D. Soluri, N. Jajac, M. Mimica, R. Andričević, P. Valero Mora, E. Campos Diaz, M. Teresa Tormo Lancero, F. Piana, A. Regattieri, M. Attard, L. Dimitriou, K. Stylianou
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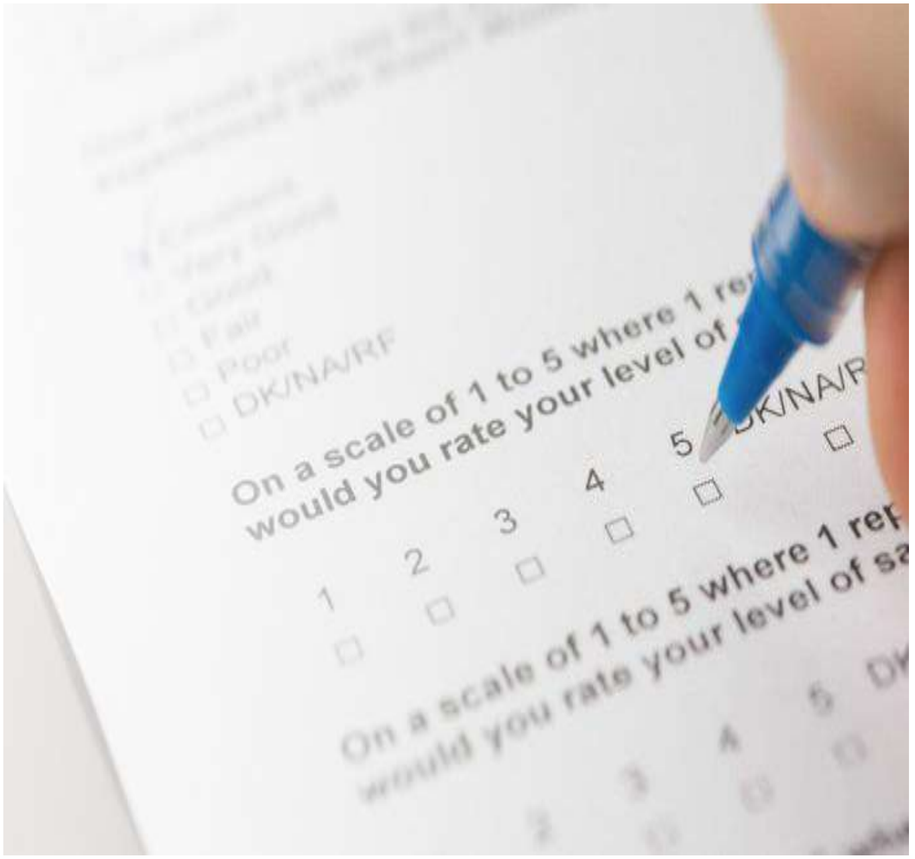
Deliverable 3.2.1: Quantitative data

Objective

to collect Quantitative Data of each partner on local level concerning mobility of student's flows in Campus areas



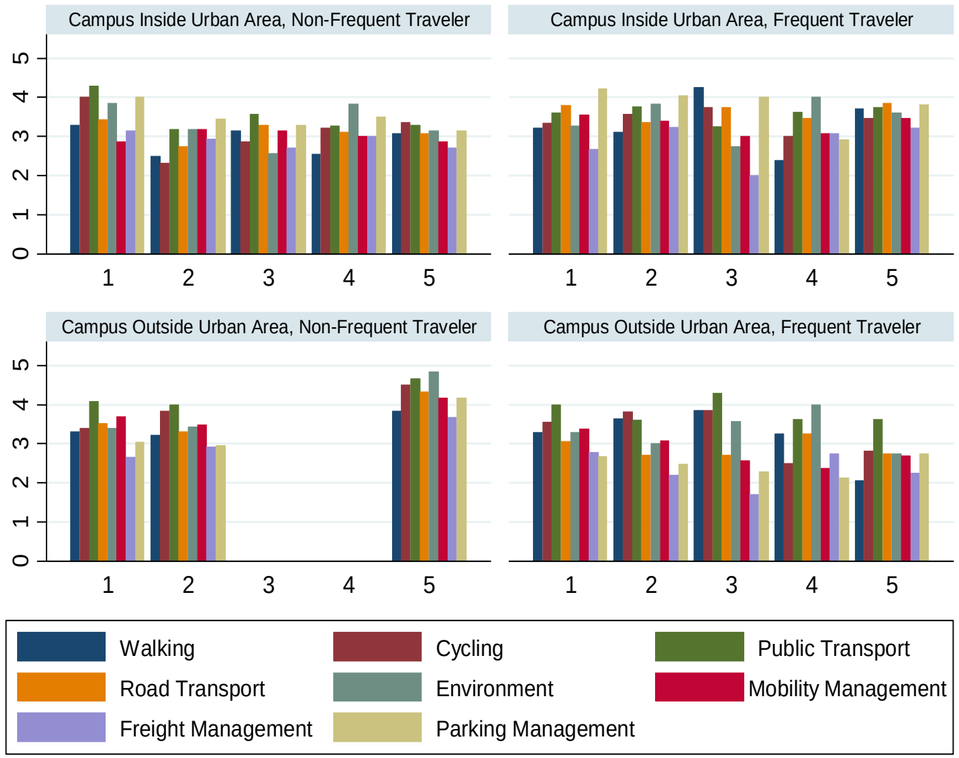
Questionnaire structure

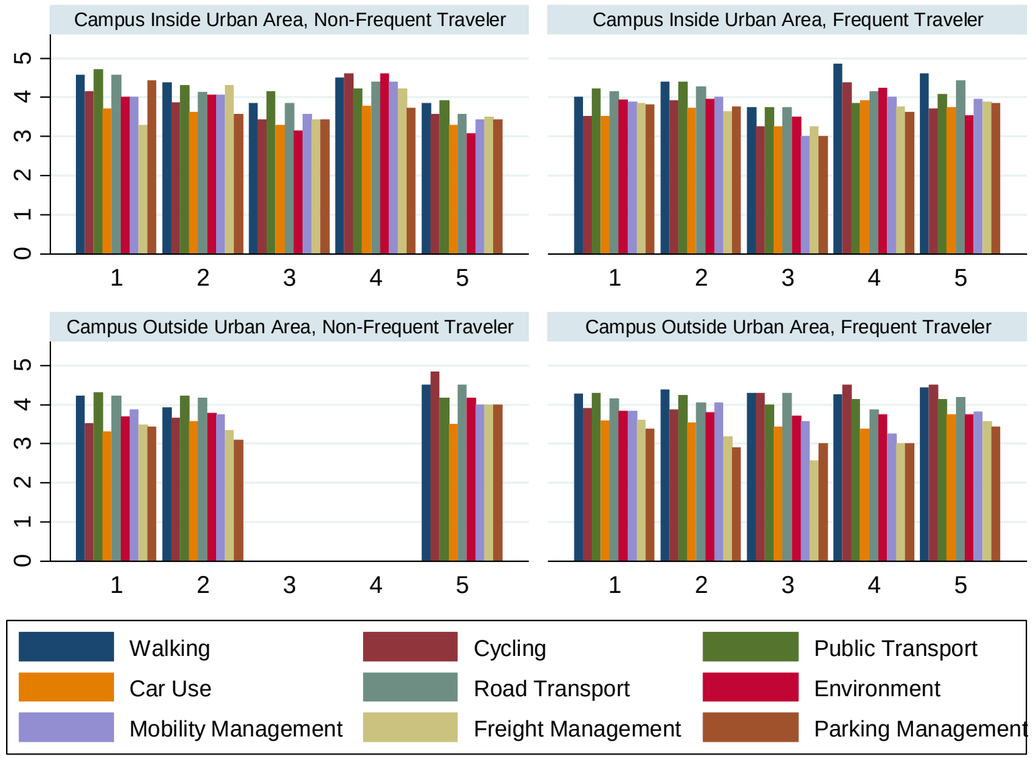
- Current mobility
- Desired Mobility
- Mobility problems
- Proposed measures/policies/tools
- Participant information

Sample characteristics

	University	Location	Area (m^2)	Students	Personnel	Sample
1	University of Catanzaro	Outside	260,000	11,000	500	104
2	National Technical University of Athens	Outside	1.000.000	13,500	3,400	124
3	University of Malta	Inside	194,452	11,500	600	250
4	University of Valencia (1 campus)	Outside	1,000,000	10,000	2,000	227
5	University of Valencia (2 campuses)	Inside	400,000	35,000	5,000	100
6	University of Split	Inside	245,000	24,000	1,500	100
7	University of Cyprus	Outside	1,200,000	7,000	1,100	85
8	University of Bologna	Outside	6,570,023	85,000	3,000	100

Quantitative results (1/2)





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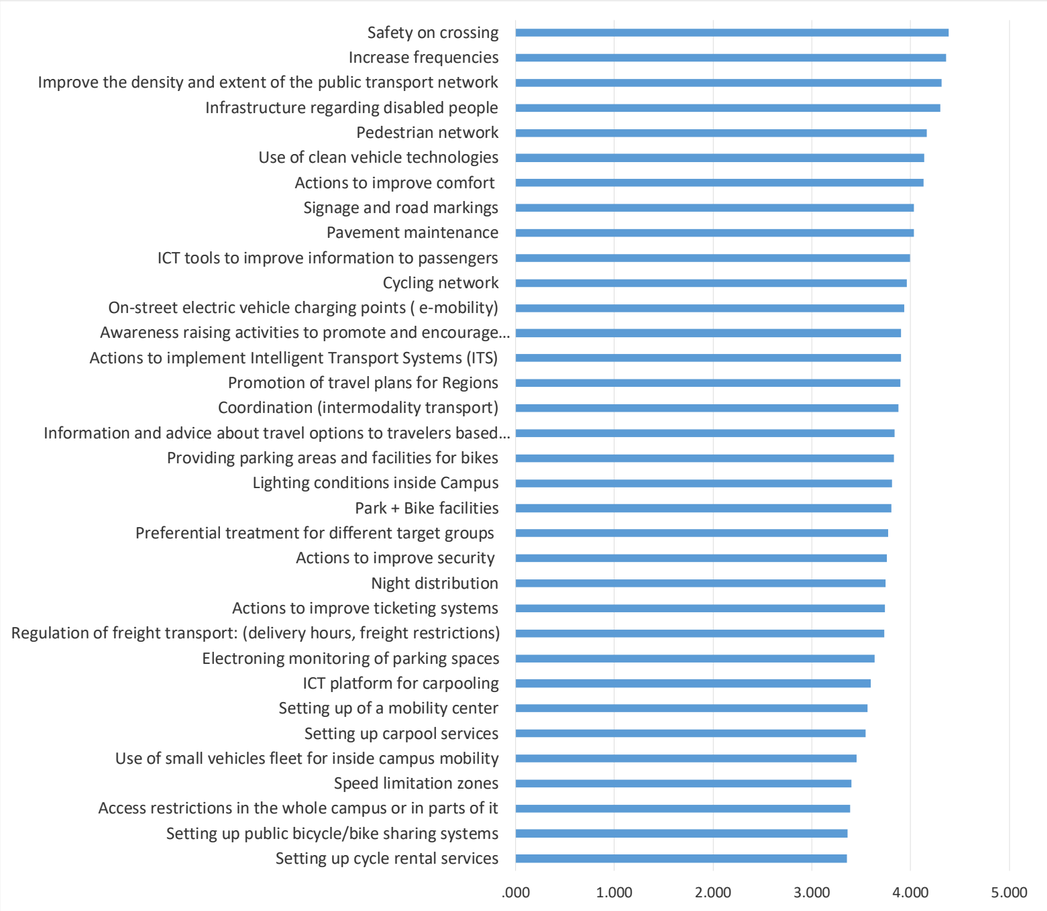
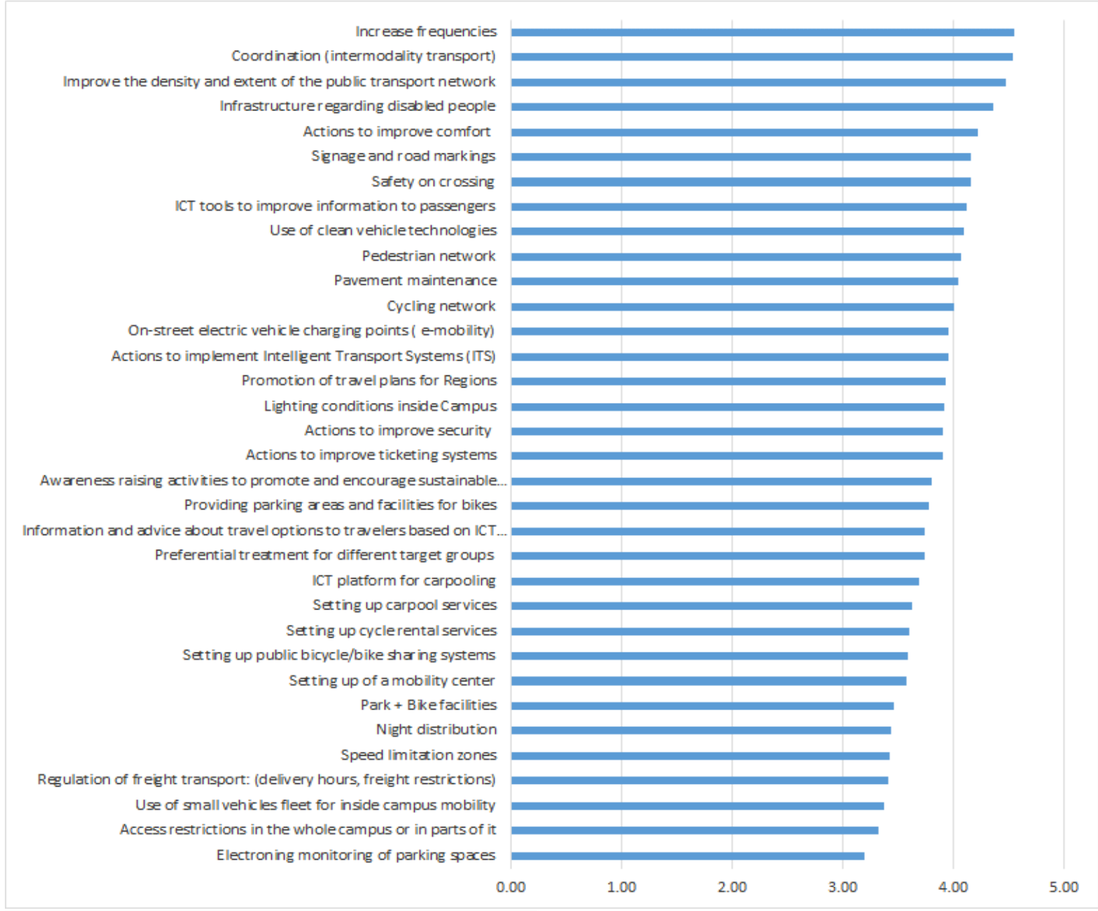
Quantitative results (2/2)





FONDAZIONE Universita' Magna Graecia

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CAMPus sustainable University mobility plans in MED areas

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Work Package	WP3: Studying
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Authors	P. Papantoniou, E. Vlahogianni, G. Yannis, V. Papaleo, D. Soluri, N. Jajac, M. Mimica, R. Andričević, P. Valero Mora, E. Campos Diaz, M. Teresa Tormo Lancero, F. Piana, A. Regattieri, M. Attard, M. Guerra, L. Dimitriou, K. Stylianou
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Deliverable 3.2.2: Qualitative information

Objective

to collect qualitative information regarding the state of the art of mobility inside the campus and related urban mobility, services and policies of students' mobility and sustainable mobility planning instruments

Survey structure

- Stakeholders, decision makers
- Current mobility situation
- Practices/policies/tools

Practices information

For each **practice/measure/tool** identified the following information were requested

- Name
- Description
- Aim
- Links to city mobility system
- Strategic Framework
- Activities conducted
- Indicators used
- ICT or other tools involved
- Estimated Cost
- Financing
- Date Issued
- Status
- Main Stakeholders
- Most Affected Stakeholder
- Problems faced
- Solutions introduced
- Success
- Reasons for fail/success

Overview

	University	Location	Students	Mobility From/To campus	Mobility Inside campus	Mobility plan
1	University of Catanzaro	Outside	11,000	Train, Bus, Car, Motorcycle	Car, Motorcycle, Walking	No
2	National Technical University of Athens	Outside	13,500	Metro, Bus, Car	Bus, Car, Bicycle, Walking	Yes
3	University of Malta	Inside	11,500	Bus, Car, Motorcycle, Bicycle, Walking	Car, Motorcycle, Bicycle, Walking	Yes
4	University of Valencia (1 campus)	Outside	10,000	Tram, Bus, Car, Bicycle	Tram, Walking	Yes
5	University of Valencia (2 campuses)	Inside	35,000	Metro, Bus, Bicycle, Walking	Walking	Yes
6	University of Split	Inside	24,000	Ferry, Train, Bus, Car, Motorcycle	Car, Motorcycle, Bicycle, Walking	No
7	University of Cyprus	Outside	7,000	Bus, Car	Car, Bicycle, Walking	Yes
8	University of Bologna	Outside	85,000	Train, bus, Car	Bicycle, Walking	Yes

Project co-financed by the European Regional Development Fund

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CAMPus sustainable University mobility plans in MED areas

Project Nb. 1MED15_2.3_M1_238

Starting date: 01/11/2016
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Deliverable D3.3.1: SWOT Analysis

Work Package	WP3: Studying
Version	16
Status	Revised by FUMG
Authors	P. Papantoniou, E. Vlahogianni, G. Yannis, V. Papaleo, D. Soluri, N. Jajac, M. Mimica, R. Andričević, P. Valero Mora, E. Campos Diaz, M. Teresa Tormo Lancero, F. Piana, A. Regattieri, M. Attard, M. Guerra, L. Dimitriou, K. Stylianou
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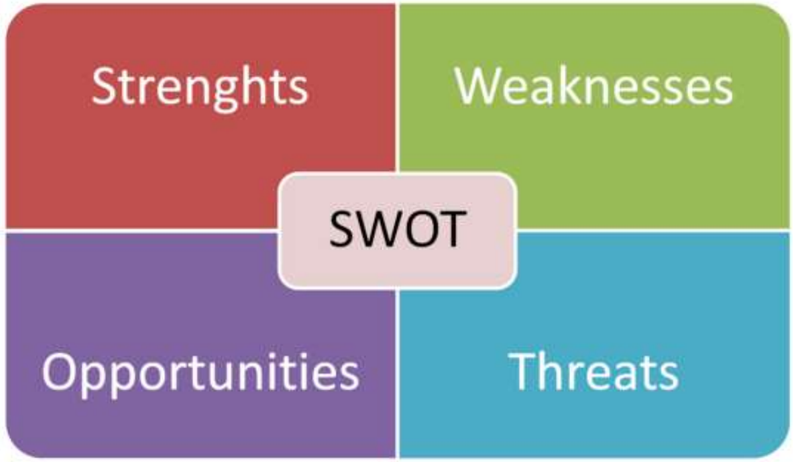
Deliverable D3.3.1: SWOT Analysis

Objective
implementation of a SWOT analysis based on a questionnaire survey on experts



- **Strengths** - the advantages of Campus mobility tools/instruments/plans
- **Weaknesses** - disadvantages, gaps in capabilities, lack of mobility policies/tools/instruments etc.
- **Opportunities** – overall impacts on mobility and the environment, staff/students satisfaction, quality of life, innovation and technology
- **Threats** - financial instruments, cost of development, cost of deployment and maintenance, legislation

Sample

- **33 experts from 7 partner Universities**

- The ideal **mix of participants** :
  - University **mobility/planning manager**, if such professional figure exists
  - At least 2 **technical representatives** of local, regional and national public institutions from each partner
  - At least 1 member from **Associated Partners**, selected by each partner
  - **Project Manager** of each partner

University	Interviews
University of Catanzaro	9
National Technical University of Athens	5
University of Malta	2
University of Valencia	3
University of Split	3
University of Cyprus	6
University of Bologna	5
Total	**33**

SWOT - Campus inside urban areas

Strength

- Well located in the city and easily accessed by public transport
- Infrastructure for active traveling (bicycle, walk etc)
- Ability to leverage the existing transportation network and city's mobility solutions
- High level of knowledge and expertise within University members

Weaknesses

- Lack of dedicated parking space
- City's traffic congestion leads to reduced campus accessibility
- Travel modes and/or connections to support the last mile
- Insufficient development of ICT tools linked to campus operations
- Lack of coordination between university activities and city demand evolution
- Organizational barriers

SWOT - Campus inside urban areas

Opportunities

- Possibility of financing from EU funds
- University can be a leader in sustainable mobility for the city center
- Innovations sourcing from universities that can be exploited to deliver mobility tools
- Integrated ICT tools

Threats

- Financial constraints
- Inefficient bureaucracy
- Resistance to change
- Difficulty to establish a viable cooperation and engagement of stakeholders
- Political will

SWOT - Campus outside urban areas

Strength

- Surrounding space is large and accessible
- Plenty of parking spaces
- New infrastructure (buildings, parking spaces, internal road network)
- Access by passenger cars
- High level of knowledge and expertise within University members

Weaknesses

- Difficulty to be accessed by public transport (areas accessed mainly by cars)
- Insufficient development of ICT tools
- Lack of funding to support the expensive implementation of appropriate mobility policies and tools
- Need for significant funds to support transit connections
- Organizational barriers

SWOT - Campus outside urban areas

Opportunities

- Possibility of financing from EU funds
- University can be a leader in sustainable mobility plans
- The construction of new connections with the city center will benefit the socio-economic development of the entire area surrounding the campus
- Integrated ICT tools

Threats

- Financial constraints
- Inefficient bureaucracy
- Resistance to change
- Difficulty to establish a viable cooperation and engagement of stakeholders
- Need for significant funding to support mobility policies, which the existing demand may not justify
- Political will

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CAMPus sustainable University mobility plans in MED areas

Project Nb. 740

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Deliverable D3.3.2: GAP Analysis

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Authors	P. Papantoniou, E. Vlahogianni, G. Yannis, N. Jajac, M. Mimica, R. Andričević, P. Valero Mora, E. Campos Diaz, M. Teresa Tormo Lancero, F. Piana, A. Regattieri, M. Attard, M. Guerra, L. Dimitriou, K. Stylianou, V. Papaleo, D. Soluri
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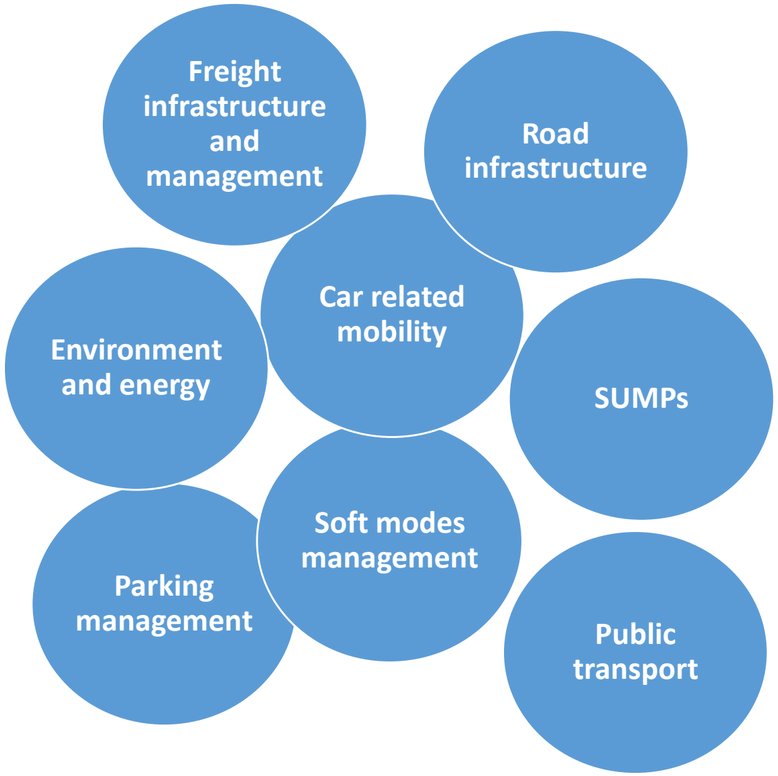
Deliverable D3.3.2: GAP Analysis

Gap analysis involves the comparison of actual performance with potential or desired performance

Thematic areas

- Parking management
- Soft modes Infrastructure
- Public transport
- Car related issues
- Road infrastructure
- Environment and energy
- Mobility management
- Freight Infrastructure and Management



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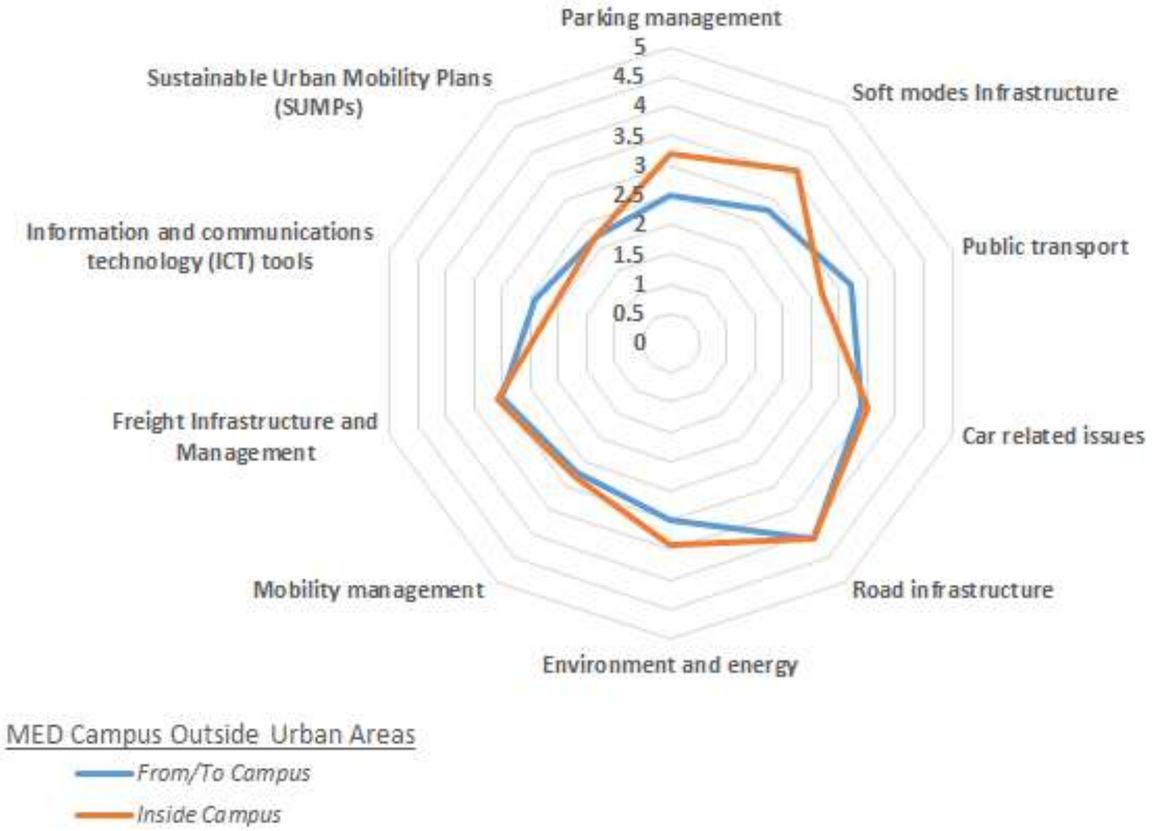
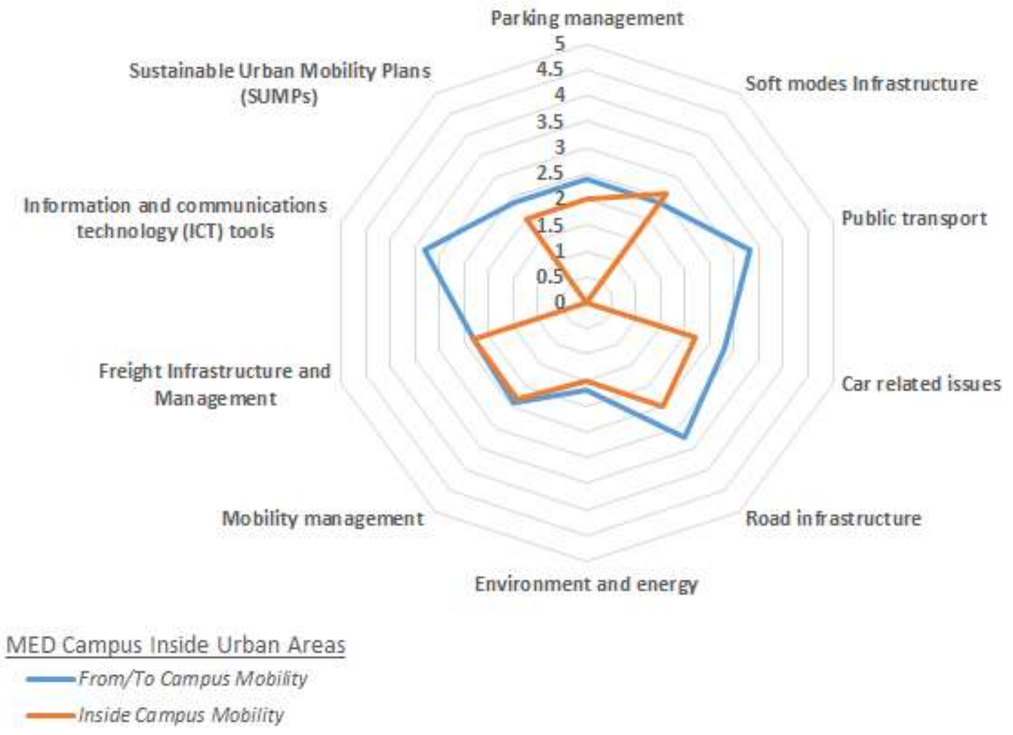
GAP – Campuses outside urban area



GAP – Campuses inside urban area



Gap analysis results

Campuses located outside urban areas

- The highest gap is for Information and communications technology (ICT) tools and for Freight Infrastructure and Management

Campuses located inside urban areas

- The highest gap is regarding the existence of a Sustainable Urban Mobility Plan both regarding mobility From/To and inside the Campus

Project co-financed by the European Regional Development Fund

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CAMPus sustainable University mobility plans in MED areas

Project Nb. 1MED15_2.3_M1_238

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Deliverable D3.3.3: State of the art

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Authors	P. Papantoniou, E. Vlahogianni, G. Yannis, N. Jajac, M. Mimica, R. Andričević, P. Valero Mora, E. Campos Diaz, M. Teresa Tormo Lancero, F. Piana, A. Regattieri, F. Pilati, M. Attard, M. Guerra, L. Dimitriou, K. Stylianou, V. Papaleo, D. Soluri
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Deliverable D3.3.3: State of the art

- to present the **state of the art** regarding mobility plans that have been implemented in universities with focus on:
  - the existence of targeted **mobility action plans**
  - the development of **ICT tools** regarding the mobility from /to and inside the campus

Actions plans characteristics

- Identification of **mobility planning documents** developed for European and Mediterranean cities with a particular focus on universities
- 60 EU cities which host a university have developed a **mobility plan** to ensure sustainable transportation solutions in their geographical area
- 10 MED and 3 non-MED cities are selected for an **in-depth analysis** on the on-going projects concerning sustainable mobility

Classification results

- The **size** of the analyzed universities varies between 10.000 and 70.000 students
- Most of the **mobility plans implemented** at city level are distinguished by those features which enable to classify them as SUMP
- The **integration** between the university and city mobility plan is quite rare between the considered case studies
- Campus **location** is evenly distributed between inside and outside the city center

State of the art of ICT tools

- The **state of the art** regarding information and communication technologies linked with Sustainable Mobility Plans at Universities
    - the **European framework** is analyzed with emphasis on ICT tools for sustainable mobility
    - **ICT applications** to Universities are critically reviewed

Overview of ICT tools

- There is not much specific information about how sustainable mobility at universities can be improved through **ICT tools**

- There are several individual **ICT projects** and applications aiming to achieve goals related to the improvement or implementation of sustainable mobility policies at universities

Conclusions

- A **road map** is missing for a university mobility manager to act as a guide to follow to develop an efficient and effective sustainable university mobility plan

- Limited accessibility to available **data** and **documents**

- Most university mobility plans are limited to provide **practical information** on available transport solutions from/to campus

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