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PARKING SURVEY – METHODOLOGY AND CASE STUDY

The XXIV FIG International Congress 2010

Sydney, Australia

11 -16 April 2010

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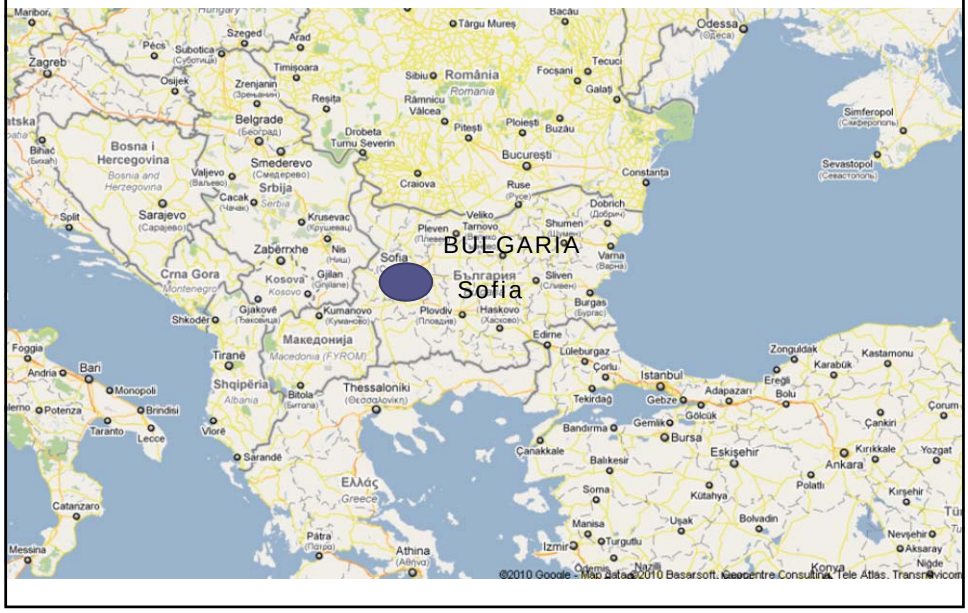
* parking survey methodology – parking capacity, parking occupancy;

* parking duration;

* planning parking survey;

* analysis parking survey results



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parking survey:

- parking capacity
- parking occupancy
- parking duration

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parking capacity

- number of available (legal) parking places per street (area)
- type of parking places: free, paid, business subscription, disabled people, illegal

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parking occupancy

Including all illigally and incorrectly parked cars (bus stop, double parking, no ticket …)

$$\textbf{parking occupancy} = \frac{\text{all parked cars}}{\text{legal parking place}}$$

parking problem if occupation > **85 %**

Surveys for several moments - evolution during the day (morning, afternoon, after working time

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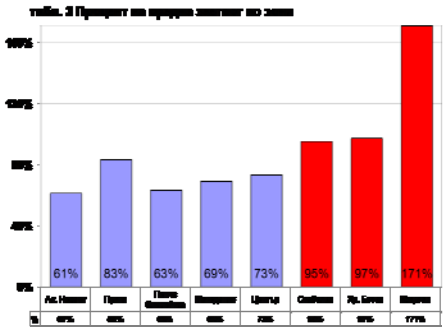
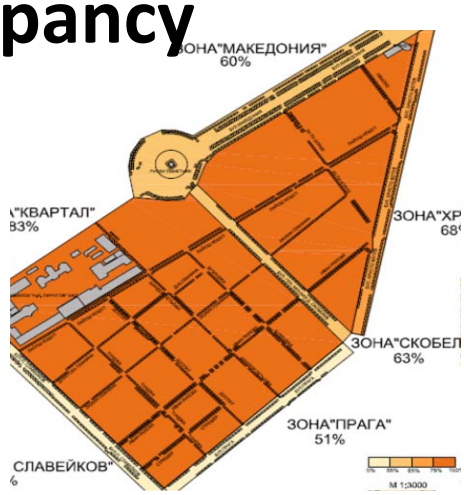
parking occupancy
examples





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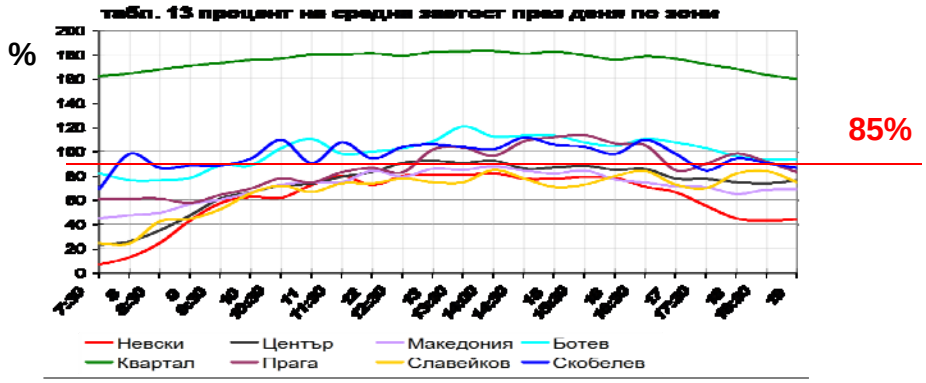
parking occupancy
examples – daily evolution



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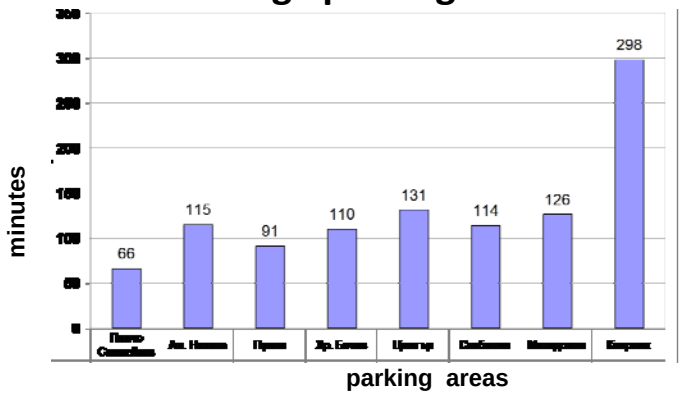
parking duration

Indicators: average parking duration



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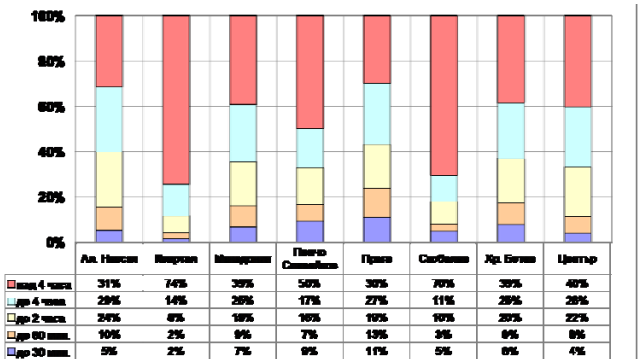
parking duration

Indicators: distribution of parking duration: share of short parking / long parking



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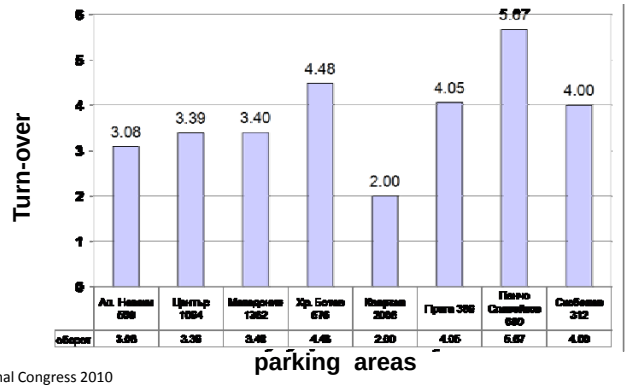
parking duration

Indicators: Turn-over: average number of parked cars on one parking place during a certain period



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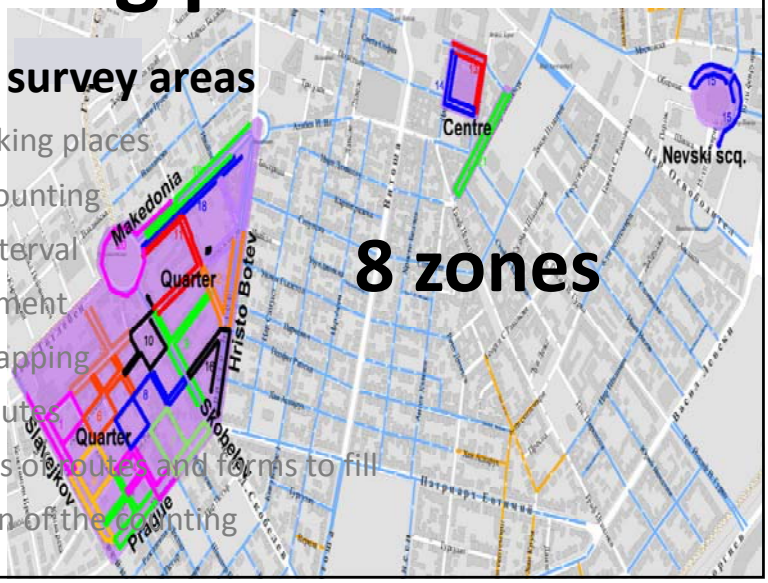
planning process

- **parking survey areas**
- type of parking places
- period of counting
- counting interval
- gis environment
- visit and mapping
- planning routes
- create maps of routes and forms to fill
- organization of the counting



planning process

•parking survey areas

•type of parking places

- free parking
- paid parking - "blue zone“
- business subscription
- disabled people parking place
- illegal

•period of counting

•counting interval

•gis environment

•visit and mapping

•planning routes

•create maps of routes and forms to fill

•organization of the counting

planning process

•parking survey areas

•type of parking places

•period of counting

12 hours optimal

7.30 am – 7.30pm

•counting interval

•gis environment

•visit and mapping

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•create maps of routes and forms to fill

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planning process

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30 minutes * 12 hours
=
24 parking units

planning process

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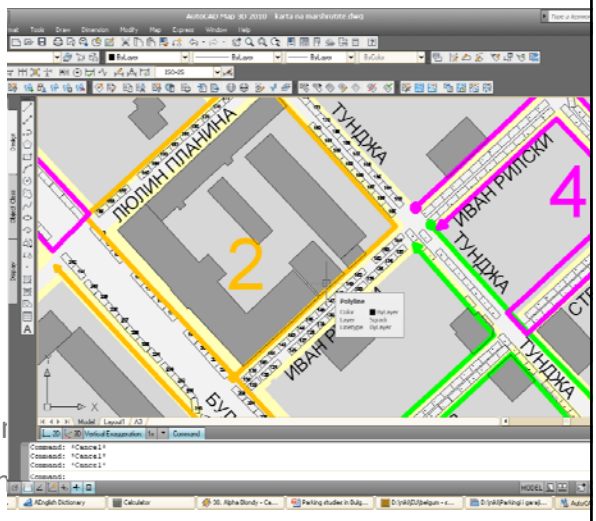

planning process

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- create maps of routes and forms to fill
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planning process

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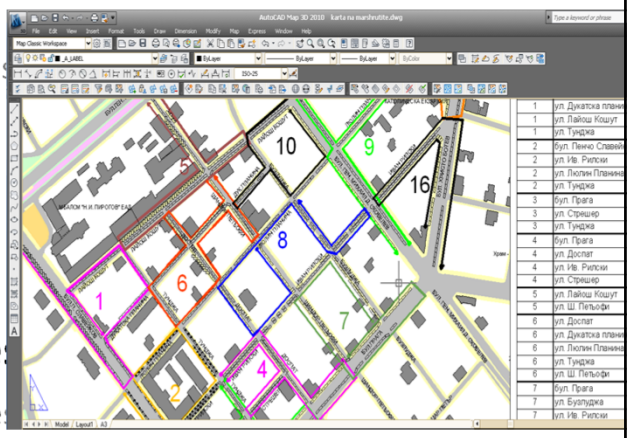
- **planning routes**
- Create maps of routes
- organization of the counting



planning process

•parking

•type of

•period

•countir

•gis env

•visit and mapping

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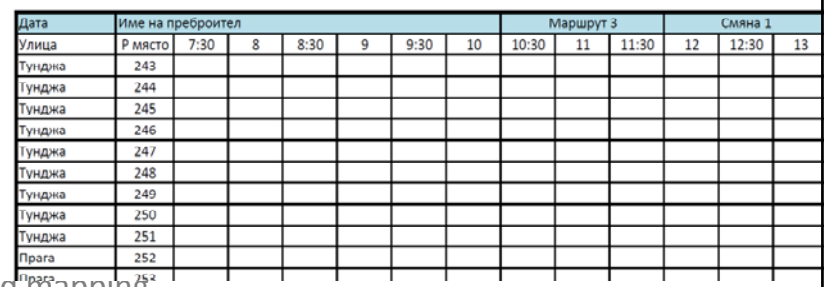

Дата	Име на преброител							Маршрут 3			Смяна 1		
Улица	Р място	7:30	8	8:30	9	9:30	10	10:30	11	11:30	12	12:30	13
Тунджа	243												
Тунджа	244												
Тунджа	245												
Тунджа	246												
Тунджа	247												
Тунджа	248												
Тунджа	249												
Тунджа	250												
Тунджа	251												
Прага	252												

planning process

•parking survey areas

•type of parking places

•period of counting

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data processing

These are the 44 forms

2400 ps * 24pu = 57 600 records

input manually from filled form

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analisys of data

- How is current parking behaviour?
- Where does it differ from the desired behaviour?
- How to force parking behaviour into right direction?
- In general: first optimise use of current capacity (increase turn-over)
- Only then add new parking capacity

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THANK YOU!

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