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

parking occupancy

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

\[
\text{parking occupancy} = \frac{\text{all parked cars}}{\text{legal parking place}}
\]

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

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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The 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

8 zones
### planning process

- parking survey areas

**type of parking places**

- period of counting
- counting interval
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<table>
<thead>
<tr>
<th>Type of Parking</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>free parking</td>
<td></td>
</tr>
<tr>
<td>paid parking - &quot;blue zone&quot;</td>
<td></td>
</tr>
<tr>
<td>business subscription</td>
<td></td>
</tr>
<tr>
<td>disabled people parking place</td>
<td></td>
</tr>
<tr>
<td>illegal</td>
<td></td>
</tr>
</tbody>
</table>

### Planning Process

- parking survey areas
- type of parking places

**period of counting**

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- 12 hours optimal
  - 7.30 am – 7.30pm

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planning process

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- **counting interval**
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30 minutes * 12 hours

= 24 parking units
planning process

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planning process

• parking survey areas
• type of parking places
• period of counting
• counting interval
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• visit and mapping

• planning routes
  • Create maps of routes
  • organization of the counting
planning process

- parking survey areas
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data processing

These are the 44 forms
2400 ps * 24pu = 57 600 records
input manually from filled form

analysys 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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