The experience of Spain in reducing road deaths in urban areas

“PIN Talk” in Cyprus
How to improve urban road safety
Cyprus, 19 March 2015

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ABOUT DGT

ROAD SAFETY MANAGEMENT IN SPAIN

URBAN ROAD SAFETY
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   Case studies
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   Speed management

LESSONS LEARNED AND CHALLENGES
**Directorate General for Traffic – Ministry of Interior**

**LEAD AGENCY IN ROAD SAFETY**

- Chairs (Minister of Interior) the National Road Safety Council, a high level group of consultation.
- Has direct responsibility for: traffic rules inside and outside urban areas; traffic management and enforcement outside urban areas; driving licensing; penalty point system; vehicle registration; coordination of research on road safety; national registers of drivers, vehicles, accidents, sanctions, penalty points.
Major breakthroughs

- 1976: National Road Safety Council
- 1980/81: First Road Safety Programme
- 1989-2004: Annual Road Safety Plans
- 2004: Road Safety Strategic Plan 2005-2008
- 2011: Road Safety Strategy 2011-2020
  2012-2013: Vision 0 discussed in Parliament and presented to the National Road Safety Council

### Fatalities

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>2,288</td>
</tr>
<tr>
<td>1989</td>
<td>9,344</td>
</tr>
<tr>
<td>2003</td>
<td>5,399</td>
</tr>
<tr>
<td>2013</td>
<td>1,680</td>
</tr>
</tbody>
</table>
The vision

0 Victims
0 Congestion
0 Pollution
0 Public debt+Competitiveness
Road traffic fatalities inside urban areas, 2013.

Total = 450 fatalities

- Pedestrians: 224
- Motorcycles: 98
- Passenger cars: 72
- Moped: 20
- Bicycle: 24
- Other: 12

Vehicle involved in the accident (other than that of the victim).

- Single accident: 43
- More than 1 vehicle: 8
- Other: 7
- Passenger cars: 14
- More than 1 vehicle: 4
- Single accident: 39
- Other: 14
- Passenger cars: 10
- More than 1 vehicle: 10
- Single accident: 41
- Other: 74
- Passenger cars: 140

Urban road safety
General framework

Spanish Road Safety Strategy 2011-2020: Priorities

1. To protect the most vulnerable users.
2. To promote safe mobility in urban areas.
3. To improve the safety of motorcyclists.
4. To improve safety on single carriageways.
5. To improve safety on work-related trips.
6. To improve behaviours related to alcohol and speed.

Action Plan on Urban Mobility

- Data systems: improving the level of reporting.
- Alcohol and drugs: improving enforcement.
- Mobility: quantity, modal split, safety.
- Driving license: getting or renewing a license.
- Safety of disabled people.
Urban road safety

• Who does what:
  – DGT → general traffic rules, including maximum speed limits, enforcement (only on certain urban roads, when there is not a local police force).
  – Municipality → enforcement (incl. detracting points), traffic management, specific traffic rules.

• How we work together:
  – National Road Safety Council.
  – Bilateral Road Safety Agreement: more than 800 agreements signed (total municipalities=8,117; municipalities > 5,000 population=1,304).
  – Periodic meetings at national and provincial level.
Bilateral Road Safety Agreement

- Access to the National Driver Register
- Access to the National Vehicle Register
- Management tools (mainly IT)
- Information on road accidents and national safety campaigns

- Communicating road accidents and victims
- Communicating penalty points
- Participating in safety campaigns (incl. enforcement)

- Assistance in developing and implementing a Local Road Safety Plan
- Developing, implementing and monitoring a Local Road Safety Plan
- Using the equipment and communicating the results

- Temporary cession of vehicles and equipment for enforcement (e.g. radar, breathalyzer)
The Urban Road Safety Master Plan

Developed in the framework of the Strategic Road Safety Plan 2005-2008, it provides local authorities with a comprehensive methodology for developing, implementing and evaluating Local Road Safety Plans.

- New model of coexistence and use of the public space.
- New hierarchy of priority: at the top, non-motorized and public transport.
- New hierarchy of roadways: city streets (speed limit 10-30 kph) and connecting roads (speed limit 30-50 kph).
- Alignment with National and European Plans.
- Key factors for success: clear leadership, collaboration and cooperation between institutions and civil society.
The Urban Road Safety Master Plan

- It defines a decalogue of areas of action and objectives.
- It describes a four-stage methodology: diagnostic, formulation of proposals, development of the action plan, evaluation of the action plan.
- It defines a number of sheets for data collection.
Urban road safety

Strategic Plan for the Road Safety of Motorcycles and Mopeds

2008-2011

Field of action 1: Preparing motor bikers for safe driving, through:
- Modifying access tests.
- Progressiveness in the access.
- Road safety training.

Field of action 2: Minimizing high accident rate scenarios, through:
- Traffic Management.
- Adapting infrastructures.
- Equipment and characteristics of the vehicles.

Field of action 3: Fighting risky driving (RD), through:
- Raising awareness.
- Preventive action on driver segments according to RD.
- Detecting and sanctioning RD.

Field of action 4: Adopting mitigating measures, through:
- Infrastructure.
- Assistance.
- Motor biker equipment.
Case Study: Madrid

- **Road Safety Plan 2012-2020.**
  
  
  - Target: reduction of 50% in fatalities over 2010-2020; 30% in casualties per population; 30% in pedestrian fatalities; conducting alcohol tests in 4% of drivers.
  
  - Areas (referred to the Haddon matrix):

<table>
<thead>
<tr>
<th>PHASE</th>
<th>HUMAN FACTORS</th>
<th>VEHICLE FACTORS</th>
<th>ENVIRONMENTAL FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-crash</td>
<td>Education and training</td>
<td>Enforcement</td>
<td>Information and communication</td>
</tr>
<tr>
<td></td>
<td>Enforcement</td>
<td></td>
<td>Mobility and infrastructure management</td>
</tr>
<tr>
<td>Crash</td>
<td>Education and training</td>
<td></td>
<td>Mobility and infrastructure management</td>
</tr>
<tr>
<td></td>
<td>Enforcement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-crash</td>
<td>Post-accident care</td>
<td></td>
<td>Post-accident care</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Information and communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Research and studies</td>
</tr>
</tbody>
</table>
Case Study: Barcelona

- **Local Road Safety Plan 2013-2018.**
  
  
  - Target: reduction of 30% in fatalities over 2012-2018; 20% in hospitalised casualties.
  
  - Focus:
    - Pedestrians: one third of fatal and serious accidents.
    - Bicycles: group with the largest increase in casualties.
    - Motorcycles: group with the largest risk per unit of mobility; about 40% of fatal and serious accidents.

28 MEASURES

- 4 POLITICAL
- 24 TECHNICAL

5 DATA COLLECTION AND ANALYSIS

- Analysis (2).
- Others (3).

11 CORRECTIVE

- Black spots (2).
- Pedestrians (2).
- Bicycles (2).
- Motorcycles (4).
- Bypasses (1).

8 PREVENTIVE

- Campaigns (5).
- Education (2).
- Post-accident care (1).
Penalty point system

- Entry into force: 1\textsuperscript{st} July 2006.
- A new philosophy:
  - focus on re-education, not punishment: key role of courses.
  - number of points as a proxy of social trust.
  - only serious and very serious offences.
- A global credit for each driver, regardless of the number or types of licenses.
- Baseline credit: 12 points, except novice drivers and drivers holding back their licenses after losing all points and doing a re-education and awareness course.
- As a general rule, no more than 8 points can be detracted on a single day.

<table>
<thead>
<tr>
<th>OFFENCE</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>2-6</td>
</tr>
<tr>
<td>Alcohol/Drugs</td>
<td>4-6</td>
</tr>
<tr>
<td>Mobile phone</td>
<td>3</td>
</tr>
<tr>
<td>Helmet, seat belt, CRS</td>
<td>3</td>
</tr>
<tr>
<td>Traffic lights</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>3-6</td>
</tr>
</tbody>
</table>
Serious or very serious offence

Report

Responsible authority

- Outside urban areas: DGT, Regional governments (Catalonia, Vasque Country).
- Inside urban areas: municipalities.

Notification/ (Appealing)/Penalty

Penalty points

PPS NATIONAL REGISTER AND DATABASE

http://www.dgt.es
Penalty point system

PPS in figures

Penalties

- 2007: 139,219
- 2014: 412,304
- Municipalities: 139,219
- DGT/Regions: 412,304

Points

- 2007: 471,529
- 2014: 1,390,424
- Municipalities: 471,529
- DGT/Regions: 1,390,424

Penalties (2014)

- Mobile phone: 137,913
- Alcohol/drugs: 122,130
- Helmet/belt/SRI: 128,114
- Traffic lights: 146,046
- Other: 161,376
- Speed: 630,054

Points (2014)

- Mobile phone: 413,739
- Alcohol/drugs: 567,340
- Helmet/belt/SRI: 384,342
- Traffic lights: 584,184
- Other: 618,475
- Speed: 1,477,086
Responsibilities:

- Speed limits:
  - General: DGT.
  - Specific: DGT, regional governments, road authorities (outside urban areas), municipalities (inside urban areas).

- Penalties:
  - DGT.

- Speed enforcement:
  - Outside urban areas: DGT, regional governments.
  - Inside urban areas: municipalities.

- Awareness /enforcement campaigns:
  - DGT: calendar, design, dissemination, enforcement.
  - Municipalities: dissemination, enforcement (those that adhere to national campaigns).
**Speed management**

**Speed enforcement — Municipalities**

- No comprehensive data on the number and results of speed checks.
- Information on speed related penalty points, based on data communicated by municipalities to the PPS National Register and Database, managed by DGT.

<table>
<thead>
<tr>
<th>Speed limit (kph)</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>Fine (€)</th>
<th>Penalty points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of offence</strong></td>
<td><strong>Serious</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>31</td>
<td>41</td>
<td>51</td>
<td>100</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>51</td>
<td>61</td>
<td>71</td>
<td>300</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>61</td>
<td>71</td>
<td>81</td>
<td>400</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>70</td>
<td>80</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>71</td>
<td>81</td>
<td>91</td>
<td>500</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>80</td>
<td>90</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Very serious</strong></td>
<td>71</td>
<td>81</td>
<td>91</td>
<td>101</td>
<td>600</td>
<td>6</td>
</tr>
</tbody>
</table>

(*) Exceeding the speed limit by more than 60kph carries criminal charges.
Speed management

**Speed enforcement — Municipalities**

- Distribution of penalties detracting points, as communicated by municipalities (2013).

<table>
<thead>
<tr>
<th>SIZE</th>
<th>% SPEED RELATED PENALTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population &gt; 500,000</td>
<td>44%</td>
</tr>
<tr>
<td>Population 100,000-500,000</td>
<td>40%</td>
</tr>
<tr>
<td>Population 50,000-100,000</td>
<td>38%</td>
</tr>
<tr>
<td>Population 20,000-50,000</td>
<td>15%</td>
</tr>
<tr>
<td>Population 10,000-20,000</td>
<td>32%</td>
</tr>
<tr>
<td>Population 5,000-10,000</td>
<td>23%</td>
</tr>
<tr>
<td>Population 2,000-5,000</td>
<td>19%</td>
</tr>
<tr>
<td>Population &lt; 2,000</td>
<td>17%</td>
</tr>
</tbody>
</table>

- Distribution of penalties detracting points, as communicated by municipalities (2013).
Lessons Learned and Challenges

- Road safety management: from annual road safety plans to multiannual road safety strategies.
- Common set of principles: vulnerable road users, rationalisation of motorised trips, coexistence and use of local space.
- Cooperation with local authorities at different levels: from National Road Safety Council to bilateral meetings and agreements with municipalities.
- Usual needs in cities: designing and implementing strategies, IT (reporting accidents, penalties...), equipment for enforcement, lack of human resources, data analysis.
- PPS and enforcement effectiveness depending on intensity: optimum level of enforcement according to local characteristics.
THANK YOU!