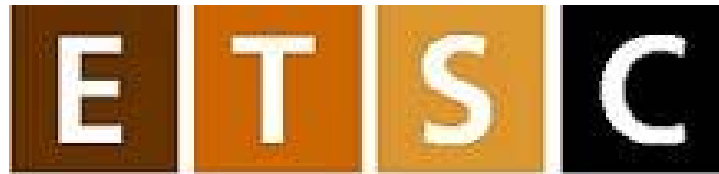


forum



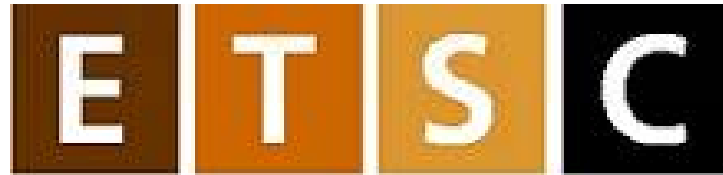
European Transport Safety Council

Paris – November 22<sup>th</sup>, 2007

# *Local initiatives in road safety challenges and opportunities*



forum



European Transport Safety Council

Paris – November 22<sup>th</sup>, 2007

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*Mobility Department*  
**City of Barcelona (Spain)**

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## BARCELONA ROAD SAFETY FRAMEWORK

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### INDEX

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- Mobility patterns.
- Barcelona road safety. General data.
- Barcelona road safety. Motorbikes.
- Improving road safety: actions in progress.

## BARCELONA ROAD SAFETY FRAMEWORK

### MOBILITY PATTERNS



**Barcelona: centre of a  
Metropolitan Region (164  
municipalities and 4,4 milion  
inhabitants).**

**Density: 1.359 inhabitants/km2**



**Barcelona: very densed city  
(1.600.000 inhabitants and 101  
km2)**

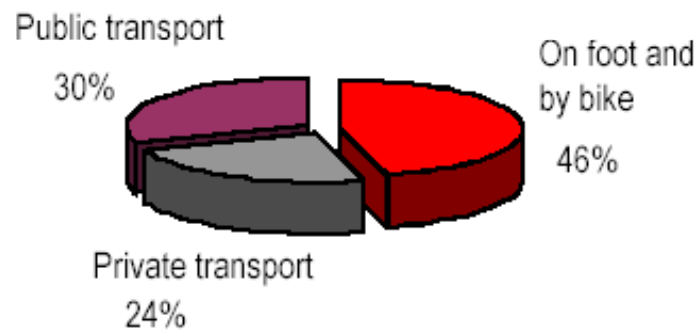
**Density: 15.963 inhabitants/km2).**

## BARCELONA ROAD SAFETY FRAMEWORK

### MOBILITY PATTERNS

#### Inner trips:

**4.694.000 (61,57%)**

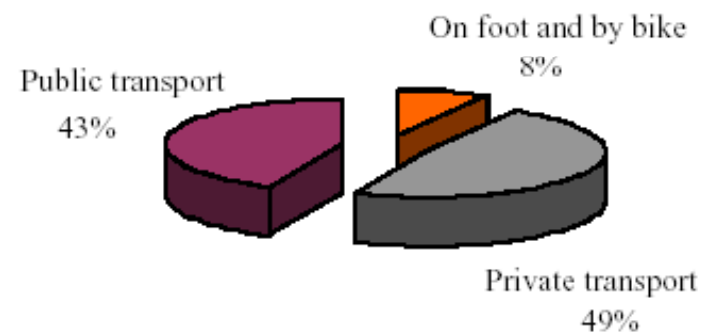


↓

28% of the private motorized transport is carried out by motorbikes (247.550 trips/day).

#### Commuting trips:

**2.929.000 (38,43%)**

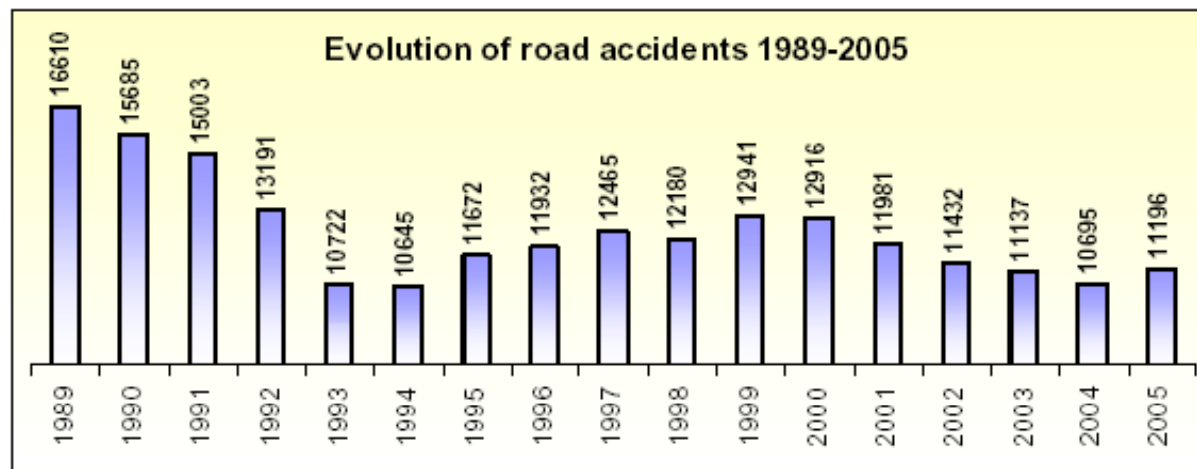


↓

4% of the private motorized transport is carried out by motorbikes (57.670 trips/day).

## BARCELONA ROAD SAFETY FRAMEWORK

### BARCELONA ROAD SAFETY. GENERAL DATA



**In 2006, the number of road accidents decreased 2.9%  
(10.875 accidents)**

## BARCELONA ROAD SAFETY FRAMEWORK

### BARCELONA ROAD SAFETY. GENERAL DATA

	2000	2001	2002	2003	2004	2005	2006	(% variation 06/05)
<i>Accidents</i>	12.916	11.981	11.432	11.137	10.695	11.196	10.875	<b>(-2,9%)</b>
<i>Accidents amb victims</i>	11.348	10.755	10.356	10.096	9.744	10.167	9.821	<b>(-3,5%)</b>
<i>Wounded</i>	14.816	14.383	13.765	13.470	12.906	13.489	12.887	<b>(-4,6%)</b>
<i>Casualties</i>	54	59	35	46	42	49	48	<b>(-2,1%)</b>

**The number of accidents with victims decreased 3.5%.**

## BARCELONA ROAD SAFETY FRAMEWORK

### BARCELONA ROAD SAFETY. GENERAL DATA

	Any 2004	Any 2005	Any 2006	% Variation 06/05
Private car	10.042	10.210	9.320	-8,72
Motorbike	3.078	3.724	4.234	+13,7
Moped	3.517	3.350	3.157	-5,76
Van	1.403	1.391	1.447	+4,02
Lorry	593	457	422	-7,65
Taxi	812	850	838	-1,41
Bicycle	338	394	387	-1,78
Others	609	722	949	+31,44
TOTAL	20.393	21.098	20.754	-1,63

**Although the general decrease of road accidents, motorbikes involved in road accidents has increased 13.7%**



## BARCELONA ROAD SAFETY FRAMEWORK

### BARCELONA ROAD SAFETY. GENERAL DATA

	2005	2006	% Variation 06/05
Abast	1.914	1.812	-5,32%
Multiple abast	322	295	-8,38%
Run over	1.662	1.494	-10,11%
Overturn (more than two wheels)	58	53	-8,62%
Fall (two wheels)	840	893	+6,31%
Front crash	158	118	-25,32%
Front-side crash	3.275	3.150	-3,82%
Side crash	1.805	1.960	+8,59%
Crash against a fix obstacle	1.023	1.021	-0,20%
Altres	522	508	-2,68%

## BARCELONA ROAD SAFETY FRAMEWORK

### BARCELONA ROAD SAFETY. GENERAL DATA

	2005	2006	Δ% 05-06
<b>Drivers</b>			
Lack of attention	2.196	2.024	-7,83%
Don't respect traffic lights	1.241	1.142	-7,98%
Con't respect safety distances	936	864	-7,70%
Improper lane turn	976	988	+1,23%
Don't respect signals (except traffic lights)	794	758	-4,53%
Change of lane without caution	656	713	+8,69%
Improper overtake	477	491	-2,93%
Don't respect pedestrian crossings	450	436	-3,11%
Don't give way on the right	370	333	-10%
Lack of attention to put into reverse	350	373	+6,57%
Lack of attention to go into circulation	308	306	-0,65%
Circulate on opposite direction	71	65	-8,45%
Others	2.336	2.372	+1,54%
<b>Pedestrians</b>			
Don't use pedestrian crossings	401	377	-5,99%
Don't respect traffic lights	226	217	-3,98%
Others	171	159	-7,02%

## BARCELONA ROAD SAFETY FRAMEWORK

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### BARCELONA ROAD SAFETY. MOTORBIKES

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- Motorbikes: important role in the Barcelona mobiLity framework
- 26% of the total of the fleet and 40% of the private car fleet.
- The number of motorbike trips keep increasing (5.6% in 2005).
- Change of legislation in Spain (October 2004).
- Nowadays: more motorbikes and more drivers without experience



**The number of accidents have increased.**

## BARCELONA ROAD SAFETY FRAMEWORK

### BARCELONA ROAD SAFETY. MOTORBIKES

Evolution of road accidents ... According to the driver experience:

Experience	Motorbikes involved in road accidents				% variation 06/05
	2003	2004 (*)	2005	2006	
Less than 1 year	393	478	927	1.154	24,5%
1 year	323	313	413	656	58,8%
2 years	241	278	293	356	21,5%

The number of motorbike drivers involved in road accidents with less than one year of experience keep growing fast (24.5%)

## BARCELONA ROAD SAFETY FRAMEWORK

### BARCELONA ROAD SAFETY. MOTORBIKES

Evolution of road accidents ... According to the driving licence:

	2005	2006	Variation 05-06 %
Motorbike drivers involved in road accidents	3.624	4.078	+12,52
Motorbike drivers involved in road accidents with licence B	720	1.170	+62,50
% road accidents licence B	19,87 %	28,70 %	

Motorbike accidents: main reasons  
(in order of importance)

Improper lane turn  
Disobey the traffic lights  
Lack of attention  
Change of lane without caution  
Don't respect distances

## BARCELONA ROAD SAFETY FRAMEWORK

### BARCELONA ROAD SAFETY. MOTORBIKES

Barcelona motorbikes 1986





## BARCELONA ROAD SAFETY FRAMEWORK

### BARCELONA ROAD SAFETY. MOTORBIKES

Barcelona motorbikes 2007



## BARCELONA ROAD SAFETY FRAMEWORK

### BARCELONA ROAD SAFETY. MOTORBIKES



1986



2007



## BARCELONA ROAD SAFETY FRAMEWORK

### BARCELONA ROAD SAFETY. MOTORBIKES



1986



2007

## BARCELONA ROAD SAFETY FRAMEWORK

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### ROAD SAFETY MASTERPLAN 2004-2007: ACTIONS IN PROGRESS

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Education and  
formation

Participation of  
all stakeholders

I+R on  
accidents

Urban Police  
controls

Forums and  
awareness campaigns

New technologies to  
improve road safety

## BARCELONA ROAD SAFETY FRAMEWORK

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### ROAD SAFETY MASTERPLAN 2004-2007: ACTIONS IN PROGRESS

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#### Education and formation

- **Training courses to motorbikes drivers (DVD or theory and practise course).**
- **Road Safety education to children (schools and the Children Education Park of the Urban Police).**

#### Participation of all the stakeholders

- **Road Safety Working Group within the Mobility Pact.**

## BARCELONA ROAD SAFETY FRAMEWORK

### ROAD SAFETY MASTERPLAN 2004-2007: ACTIONS IN PROGRESS

#### I+R on accidents

- **I+R on motorbike accidents (reconstruction of accidents, causes, behaviour, etc).**
- **Improvement of data taken from accidents (BIA, Barcelona Research of Accidents).**
- **International motorbike working group (Rome, Paris, London, Barcelona, Madrid).**
- **Development of different actions to improve 'Risk Spots'.**

#### New technology to improve road safety

- **'Video complaints' in 30 intersections (higher risk points).**

## BARCELONA ROAD SAFETY FRAMEWORK

### ROAD SAFETY MASTERPLAN 2004-2007: ACTIONS IN PROGRESS

#### Urban Police controls

- **Main goal: avoid those risky behaviours (lack of attention, disobey the traffick light, don't respect safety distances, etc).**
- **Alcohol controls.**

#### Forums and awareness campaigns

- **Annual Barcelona Safety Forum (1994-2006).**
- **Awareness campaigns: 'Use the helmet', 'Drive with caution: avoid accidents'.**
- **Different road safety publications (magazines, leaflets, etc).**



22 November 2007

9<sup>th</sup> European Transport Safety Lecture

Local initiatives in road safety  
- challenges and opportunities

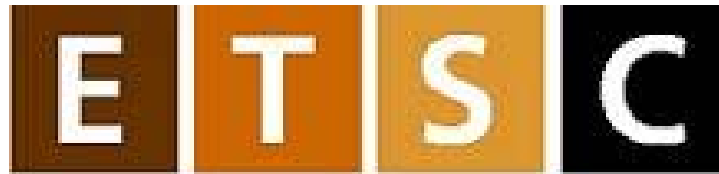


***Thank you very much for your  
attention!!***



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Barcelona City Council

forum



European Transport Safety Council

Paris – November 22<sup>th</sup>, 2007

# *Local initiatives in road safety challenges and opportunities*

