



For a better and safer road network in Europe

WhiteRoads EU Project

A + approach to road safety



**Asociación
Española de la
Carretera**



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The Project

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Background



Road Safety in our society

Every year only in the EU there are more than **30.000** road fatalities and **1,5 millions** injuries

Different initiatives aim at improving road safety:

- **EU:** Road Safety Action Programme 2011-20
- **UN:** Decade for Road Safety 2011-2020

Road accidents have a **negative social, health and economic impact**

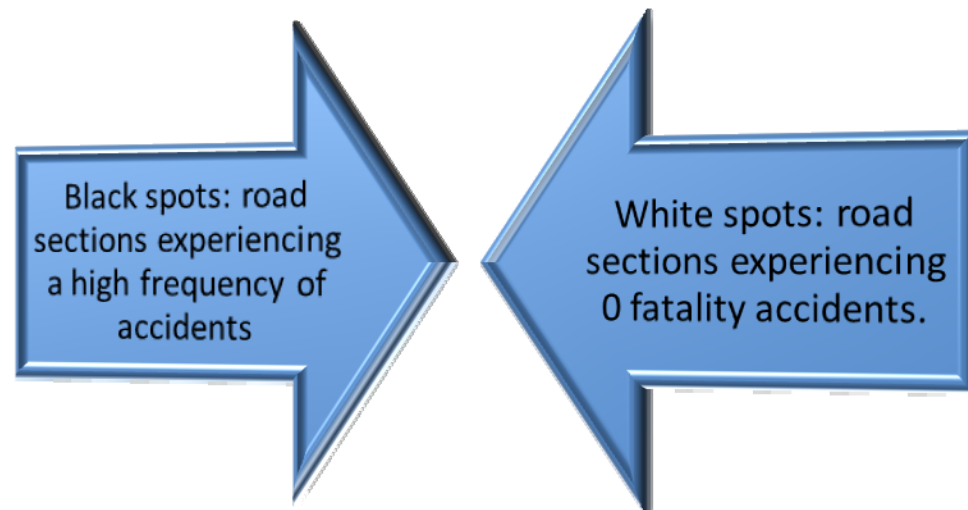
Background



WhiteRoads Project Rationale

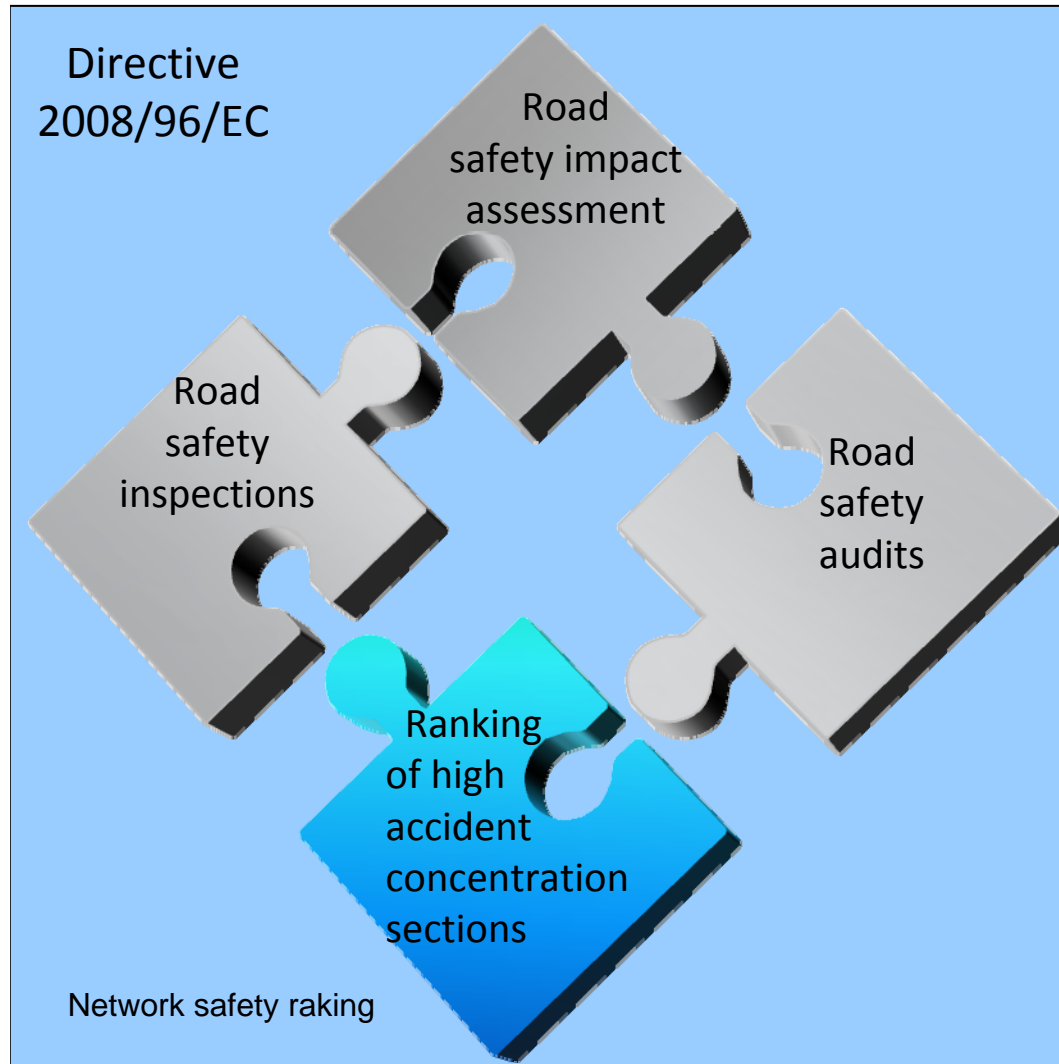
Partners: European Union Road Federation & Spanish Road Association. Cofinanced by the EC

Objective: development of the **first + approach** to improve road safety from the infrastructure perspective



WhiteRoads: a + approach to road safety

Background



WHITEROADS:

Starting from the assumption that more useful information can be obtained analysing road sections with low road accident frequency, the project aims at identifying the best road sections in Europe and comparing them to the adjacent stretches characterised by a higher volume of accidents.

THE FIRST POSITIVE APPROACH TO ROAD SAFETY FROM THE INFRASTRUCTURE PERSPECTIVE

Background



Result: the comparative analysis will enable the Project to highlight the factors which can reduce accident frequency:

Elaboration of a checklist of + infrastructure elements which will complement existing guidelines for the design, maintenance and management of “road without accidents” as laid down by Directive 2008/96/CE on Road Infrastructure Safety Management

WhiteRoads: a + approach to road safety

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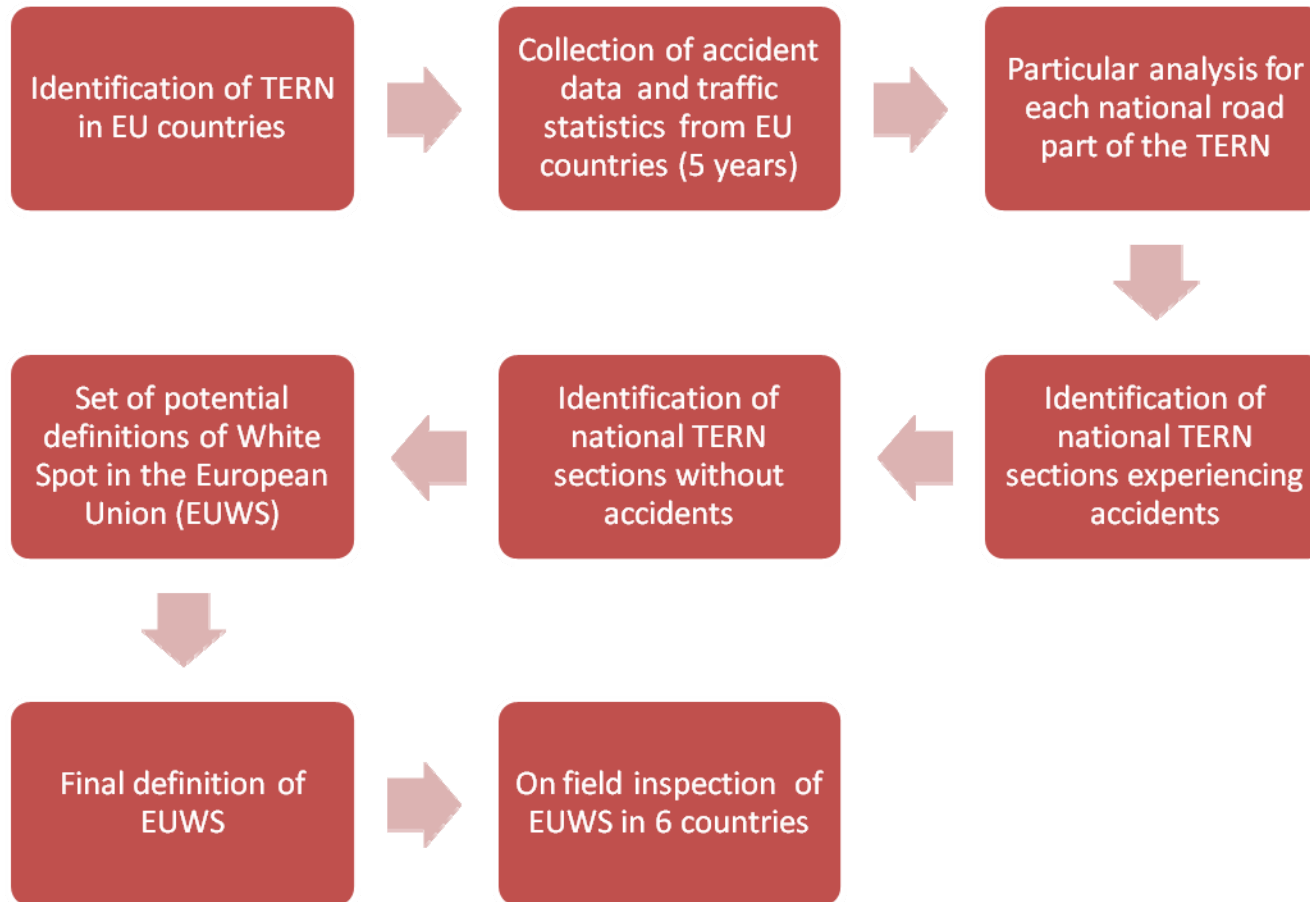


Life Period: May 2010 – February 2013

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Traffic accident data: collection, evaluation and analysis



The Project



1

DATA COLLECTION

2

DATA ANALYSIS
AND DEFINITION
OF EU WHITE
SPOT

3

IDENTIFICATION
OF WHITE SPOT IN
THE TERN

4

ON-SITE FIELD
WORK (SP, FR, BE,
Baltics, PO, ROM)

5

DEVELOPMENT OF
COMPARATIVE
CHECKLIST
IDENTIFICATION OF THE
CHARACTERISTICS OF WHITE
ROADS IN THE TERN

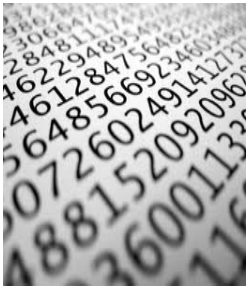
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DISSEMINATION

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Challenges



Collection of road accident data and traffic statistics from 27 member states during the last 5 years

Analysis and location of accidents which happened only on the TEN-T road network for each member state



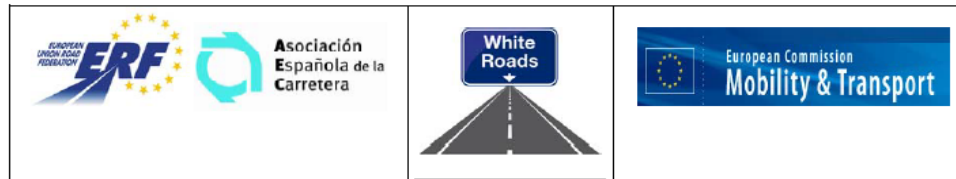
Analysis and evaluation of the data received and identification of road sections of the TEN-T that in equal traffic flow density and similar road infrastructure have registered no accidents during the last 5 years



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Questionnaire



1. Entity profile

- Contact details (name, surname, position, email, telephone)
- Full name of the entity, short name (acronym), country

2. List of Trans-European Road Network in your country¹

3. National definition of fatal accident and road injury

4. Accident database in your country during the period 2004-2009²

- Road identification (number, name)
- Accurate location of the accident (km and direction)
- Date of accident (day-month-year and time)
- Type of road (motorway, single carriageway)
- Number of serious injuries and fatalities in each accident
- Type of vehicles involved in the accident
- Description of existing infrastructure and equipment placed in the spot where the accident occurred: lighting, barriers, vertical signs, road markings, state of surface.

5. Traffic flow of all the roads in the country, specifying type of vehicle, for 2004-2009, both included³

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Questionnaire

- Graphic Table 1

Number	Road	Location	Date	Type of road	Killed	Serious injuries	Type vehicle involved (heavy, car, motorcyclist, cyclist, pedestrian, etc)	Existing infrastructure and equipment placed in the spot where the accident occurred (lighting, barriers, vertical signs, road markings, state of surface, etc)
1	N-340	Km 17.4	3/7/2008 11:10 am	Single carriageway	1	3	Light vehicle Motorcycle	Safety barrier Road marking

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Questionnaire

- Graphic Table 2

Road	Type	Section (control)	Average Daily traffic 2004	% of heavy vehicles 2004	% of PTW 2004
<i>N-340</i>	<i>Single carriageway</i>	<i>Km 20</i>			

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Traffic accident data: period covered and size of the analysis

Country	Number of accidents	Kms/TERN covered
Austria	1.754	1.823,7
Belgium (Flanders)	2.328	990,1
Belgium (Wallonia)	5.852	887,5
Bulgaria	1.163	2.735,0
Cyprus	234	183,6
Denmark	1.072	935,8
Slovak Republic	184	416,7
Slovenia	401	417,0
Spain	59.924	11.637,7
Estonia	1.455	1.017,5
Finland	2.996	4.188,5
Greece	508	753,7

Period covered: 2005-2009, both included, in most EU countries. Only in Bulgaria accident data was only available for 2007-2009.

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Country	Number of accidents	Kms/TERN covered
Netherlands	2.218	3.112,6
Hungary	14.168	2.216,7
Italy	39.885	6.076,2
Ireland	3.567	2.492,6
Latvia	11.092	1.755,6
Lithuania	1.392	811,2
Luxembourg	73	91,2
Poland	14.300	4.339,6
Portugal	1.058	2.860,6
Sweden	1.230	5.729,2
Czech Republic	1.488	2.709,2
United Kingdom	43.941	7.169,2
Romanía	7.899	3.576,4
TOTAL	220.182	68.927,1

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Difficulties



Most of the countries do not have an official list of Trans European Road Network

Some countries do not provide accident data for analysis (although all privacy concerns are respected). This is the situation of Germany



Some countries do not have information about type of vehicle involved in accidents, which introduces difficulties in the analysis for road safety purposes

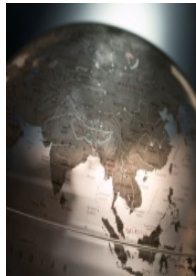


Countries like United Kingdom, Finland, Ireland, Sweden and Czech Republic refer the accidents in coordinates "x-y" or GPS, which do not correspond to the road network (classified in number of road and kilometre). This circumstance makes the analysis more complicated and the necessity to locate accidents using a special software.

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Difficulties



Some countries provide accident data in road sections of 1 km long without specifying the exact point where the accident happened. Thus, this introduces a different analysis for these countries (Italy and Denmark)



Information related to traffic flow or vehicles involved in the accident is not available in many countries

The lack of clear information, statistics and correlation between accidents and road sections is extremely negative for road safety analysis from the infrastructure point of view. Not only for the WhiteRoads Project, but also for black spot management works or other research studies



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Definition of White Spot and number of WR in EU countries

European White Spot (EUWS) is defined as a road section, at least 15 consecutive kms long, where no fatality accidents have happened during the last 5 years considered

	EUWS 15 km long
Number of EUWS	669
Total km of White Roads	21519
% of white roads over total TERN	38%

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Number of WhiteRoads in different EU countries

Country	EUWS	% over national TERN
Austria	20	27%
Belgium (Flanders)	8	15%
Belgium (Wallonia)	7	16%
Bulgaria	40	40%
Cyprus	3	36%
Denmark	17	38%
Slovak Republic	5	17%
Slovenia	5	51%
Spain	142	38%
Estonia	11	22%
Finland	79	70%
Greece	4	10%

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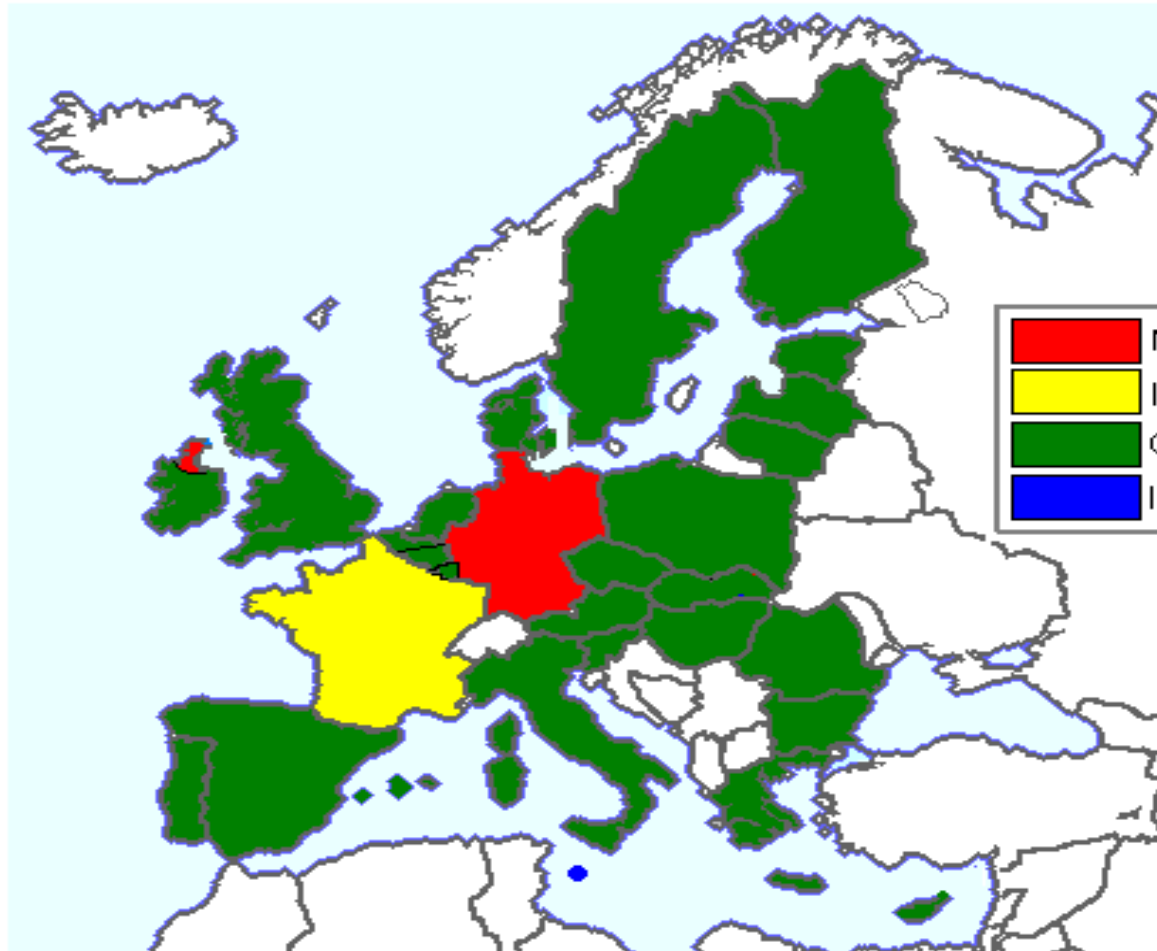


Country	EUWS	% over national TERN
Netherlands	59	55%
Hungary	17	16%
Italy	46	16%
Ireland	42	50%
Latvia	23	31%
Lithuania	1	2%
Luxembourg	1	22%
Poland	9	5%
Portugal	46	48%
Sweden	26	42%
Czech Republic	17	18%
United Kingdom	7	7%
Romania	106	89%

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Current status



France: analysis pending of confirming starting and ending Km of 10 roads

No data
In analysis
Completed
Insufficient data

Germany has not provided data for the analysis

Malta: no sufficient data for the analysis

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Case Study: SPAIN



TEN-T: 11.638 km

69 roads

59.924 accidents

Between 2004-2009

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Case Study: SPAIN

ROAD	length analyzed (Km)	% of EUWS					Road lenght considered				
		5 Km EUWS	10 Km EUWS	15 Km EUWS	20 Km EUWS	25 Km EUWS	5 Km EUWS	10 Km EUWS	15 Km EUWS	20 Km EUWS	25 Km EUWS
A-1	230,1	51%	34%	8%	0%	0%	116,9	78,9	17,7		
A-10	29,0	72%	51%	0%	0%	0%	21,0	14,9			
A-11	59,0	99%	99%	78%	78%	43%	58,6	58,6	46,2	46,2	25,1
A-15 (pK0 - pK 13,349)	13,3	100%	100%	0%	0%	0%	13,3	13,3			
A-15 (pK113,5 - pK 155,8)	42,3	83%	42%	42%	0%	0%	35,2	17,8	17,8		

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Case Study: SPAIN

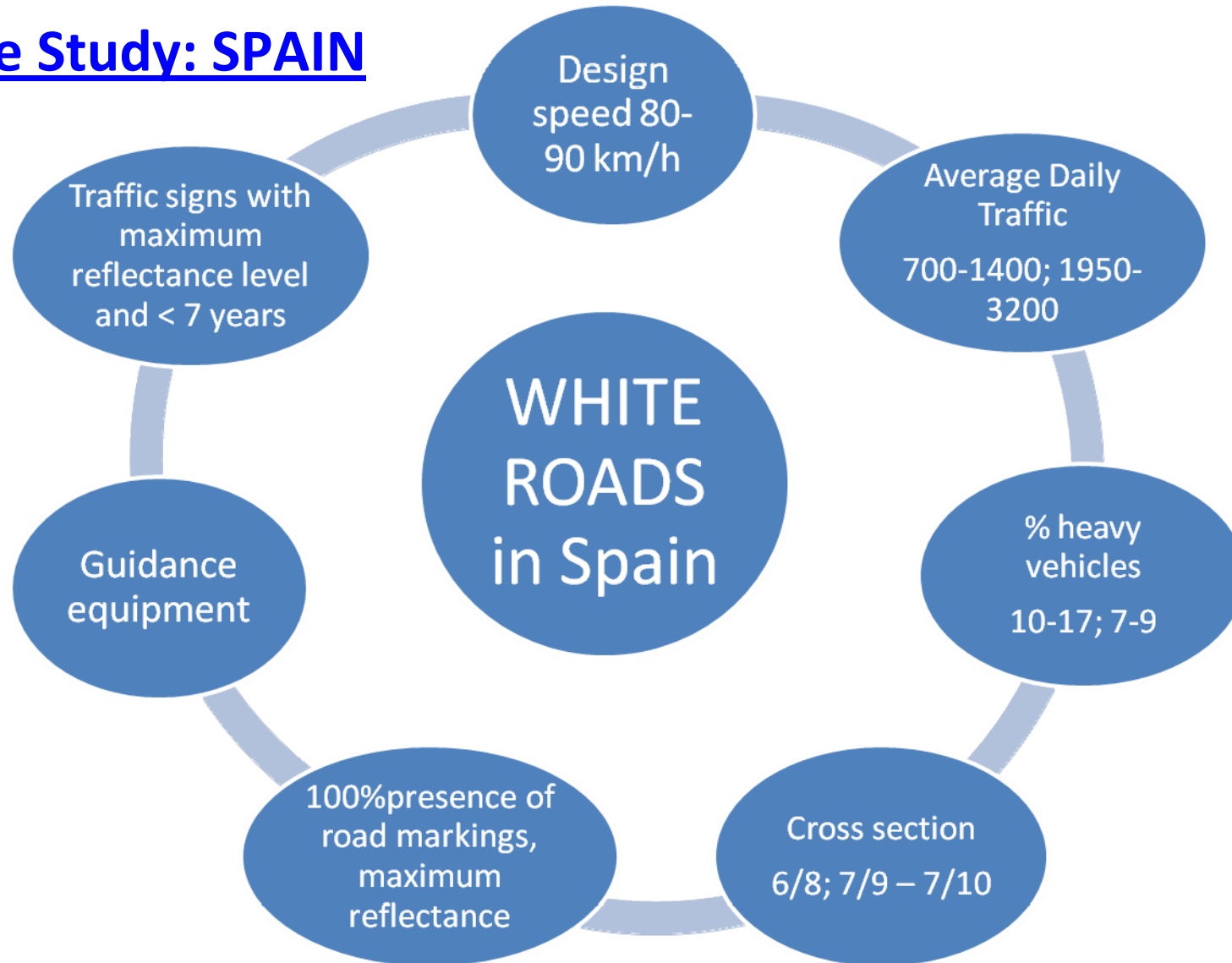
	Road sections without fatality accidents			Road sections without fatality and injury accidents		
	EUWS 15 km long	EUWS 20 km long	EUWS 25 km long	EUWS 15 km long	EUWS 20 km long	EUWS 25 km long
Number of EUWS	142	85	52	44	28	19
Total km of White Roads	4375	3331	2660	1296	1083	919
% of white roads over total TERN	38%	29%	23%	11%	9%	8%

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Case Study: SPAIN







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Next steps:



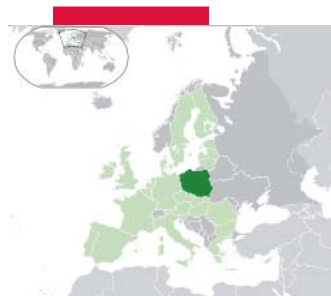
SPAIN



FRANCE



BELGIUM



POLAND



ROMANIA



ESTONIA



LITHUANIA



LATVIA

First Conclusions



- Collection of data and statistics is never an easy task. In our case, the delay has been of one year
- WhiteRoads Project has achieved a further step in analysing national statistics of more than 220.182 accidents and 68.900 Kms
- Detailed evaluation will permit to present concrete results for every member state
- The Project will provide complementary guidelines to improve design, construction and management of the TEN-T
- Innovative comparative checklist will give the EC the possibility to transform it into legislation to improve road safety

