

Activities in Italy



110°
ANNIVERSARIO
1905-2015



Lucia Pennisi

ACI – Direzione Studi e Ricerche



Automobile Club d'Italia

Activities in Italy

- Data processing and Maps
- RPS and accidents data
- Dissemination



Road Accidents 2013

- In 2013, in Italy:
 - 181,227 road accidents
 - 3,385 fatalities (deaths within 30 days)
 - 257,421 injured persons.
- Comparing 2013 data with the previous year (2012), a **decrease** by
 - 3.7% for accidents
 - 3.5% for injuries
 - 9.8% for fatalities
- The decrease of fatalities in road accidents, between 2001 and 2013, is **52.3%** (target 2010 reached)
- Fatalities 2013 by road type:
 - 321 motorways -2.7% (a terrible accident with 40 fatalities was happened)
 - 1,543 extraurban roads -9.8%
 - 1,421 urban roads -11.3%













EuroRAP Network 2011-2013

- about 18.000 km of roads, 6.600 of which are Motorways
713 links: 228 Motorways and 485 National Roads
- In the last three years (2011-2013) about
16,000 accidents per year with
26,500 injuries
600 fatalities
- In 1 out of 4 road accidents a lorry or truck is involved
- In 1 out of 6 road accidents a PTW is involved
- Relevant **Accidents type:**
 - 40% rear-end
 - 22% side impact
 - 21% run-off



Performance tracking

Incidentalità confronto tra le tratte nei due trienni presi in considerazione (variazione media % -14,40)			Incidentalità mortale confronto tra le tratte nei due trienni presi in considerazione (variazione media % -18,07)	
	106 tratte	>2M	121 tratte	
	112 tratte	M+15% - 2M	61 tratte	
	43 tratte	M+- 15%	10 tratte	
	97 tratte	0 - M	94 tratte	
	175 tratte	>0	125 tratte	

41% better than the average
 8% in the average
 18% less than the average

33% equal or more accidents

44% better than the average
 2% in the average
 23% less than the average

30% equal or more accidents



Density and Risk Maps

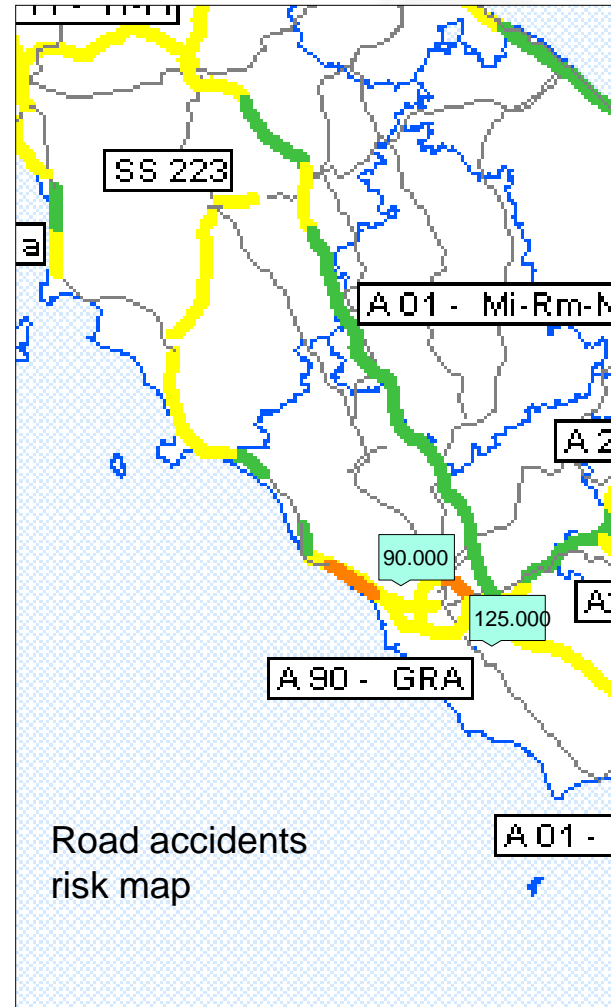
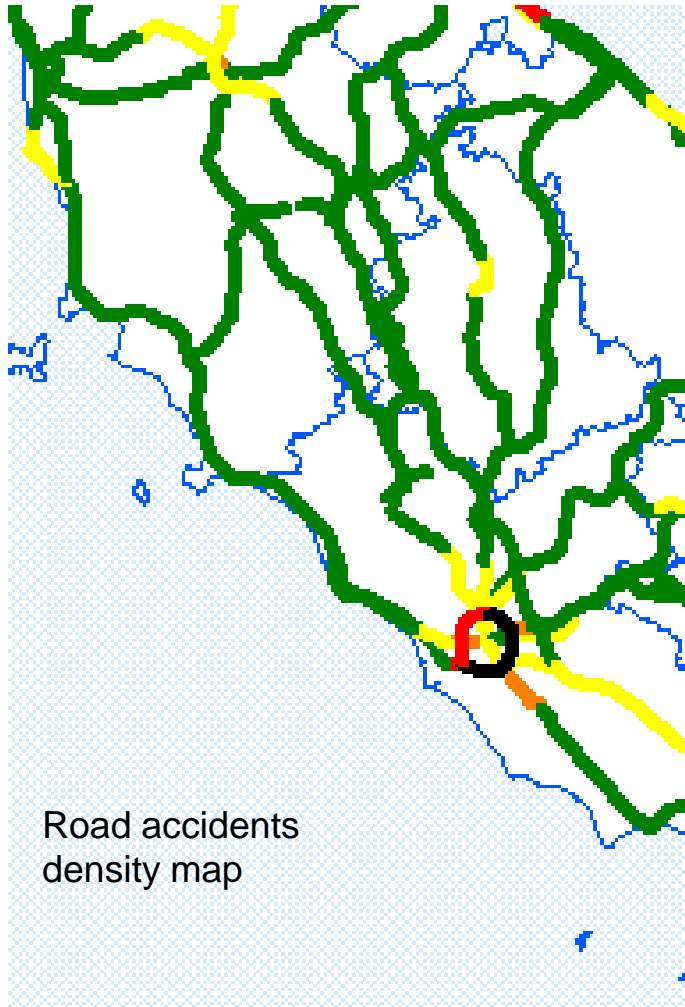
Density map for internal use
(method based on deviation from the average)



Density and Risk Maps



Density and Risk Maps



RPS and Road Accident data

Under an agreement with ACI a student of La Sapienza University of Rome carried out a study about the relationship between RPS (n° of stars) and number of road accidents:

- ✓ at first glance the results of the RPS does not always agree with the analysis of road accidents data
- ✓ the Directive on road safety infrastructure management previews inspections only on dangerous links
- ✓ accidents data could be not available or not precise (i.e. carriageway not known) and road authorities could prefer inspections

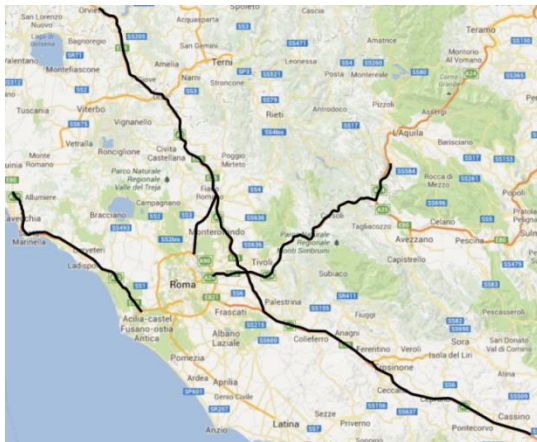


RPS and Road Accident data

Dataset used:

Regione Lazio RPS inspections 2010 on motorways (400km)

Accidents data 2008-2010



Two different datasets were used

- ✓ Per single km
- ✓ In links of 2 to 5 km length

And two different RPS

- ✓ Minimum
- ✓ Medium

And 5 different indicators for each link (according to the Directive):

Acc/veic-km

Fatal Acc./veic-km

Acc/km

Fatal Acc./km

Fatalities/Acc



Automobile Club d'Italia



EuroRAP

EUROPEAN ROAD ASSESSMENT PROGRAMME

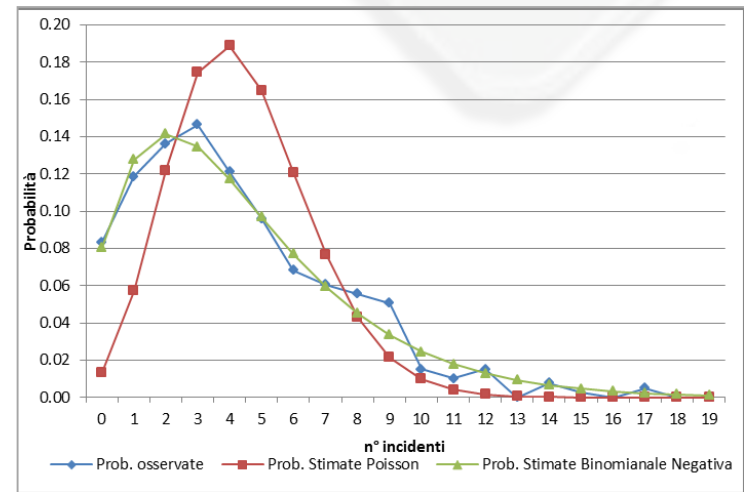
RPS and Road Accident data

No relevant difference using the aggregate dataset (links of 2 – 5 km) or dataset per single km - the ranking according to an indicator is modified slightly

Looking at the aggregate dataset good agreement between the ranking according to accidents and fatal accidents (about 50% of links more or less in the same position)

No relevant difference when using the minimum or the smoothed value of stars

The Statistical analysis showed that the negative binomial distribution fits well with the observed distribution of accidents and the coefficients of the model indicate that the flow variation affects road accidents less than the variation of RPS



Dissemination

- Communication and Meeting with road authorities to analyse the data
- Statistical Office of MIT agreed to present the EuroRAP methodology and report in the study on Road Accident Analysis in Italy
- ACI will publish new maps and analysis on the online magazine OndaVerde
- A comprehensive Report on Road Safety Infrastructure procedures is going to be published by ITF (IRTAD) – Road Assessment Programme are described focusing on RPS and Star rating