

Looking back to change track

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September 23, 2013

Current Air Pollution and Traffic Situation



Current Air Pollution Situation in Malta

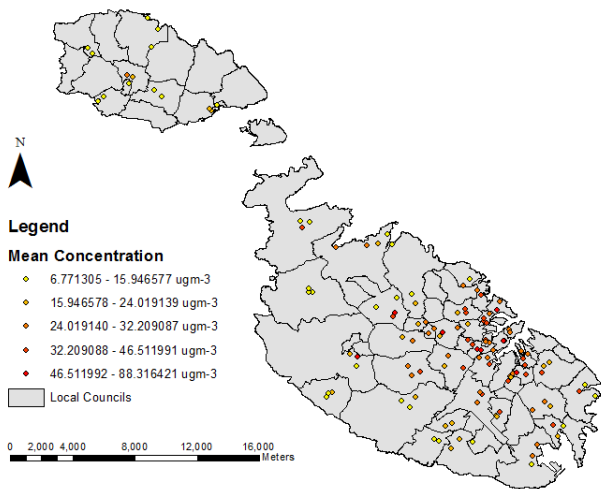


Figure: Mean Nitrogen Dioxide Concentration for each station

Analysis of Traffic

- With 229,016 private vehicles in 2010 Malta is one of countries with the highest car ownership rates in the world.

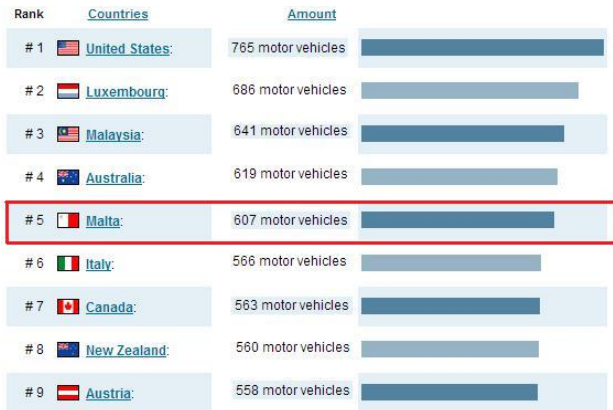
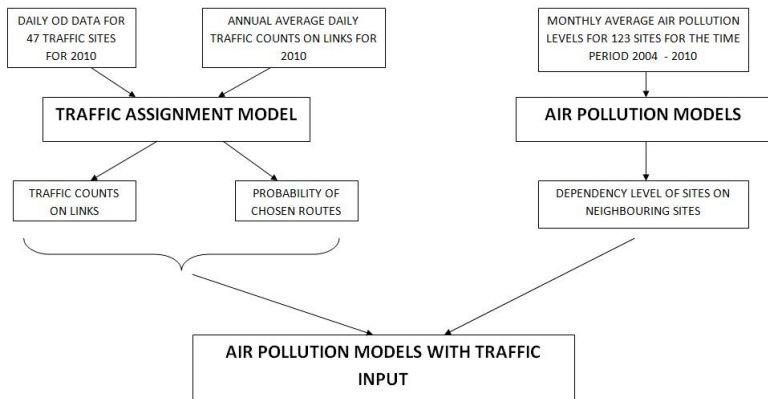


Figure: The number of cars/1000 persons in 2010

Analysis of Traffic

- USA = **24** motor vehicles/ km²
- Malta = **804** motor vehicles/km²

Looking back...Data Driven Spatio-Temporal Models for Traffic and Air Pollution



Results

The spatial independence among the various sites are either due to

- considerable traffic pattern differences between the sites, or due to
- the absence of pollution diffusion attributable to building heights and geometry features.

Results

Figure: Geometry of roads: top left: St Anne Street in Floriana, top right: Triq Dicembru 13 in Marsa, bottom left: Triq Regionali and bottom right: St Joseph High Street Hamrun



How can we change track?

- Use of Public Transport
- Use of Bicycles
- Car Pooling / Sharing
- Eco-Driving
- Incentives to replace ageing vehicles
- Traffic Management - more opportunities to Intelligent Transportation Systems