MALTA NATIONAL TRANSPORT MODEL (NTM)

OBJECTIVE:

OVERVIEW OF THE MODELLING FRAMEWORK

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Ph.D. Environmental Science

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Transport Malta

Transport Malta

Outline of the Presentation

1. Statistics About Malta
2. Background
    1. Transport demand
    2. Transport Supply Network
    3. GIS-based modelling in Cube Voyager Suite
    4. Outputs of modelling
3. Limitations/difficulties encountered

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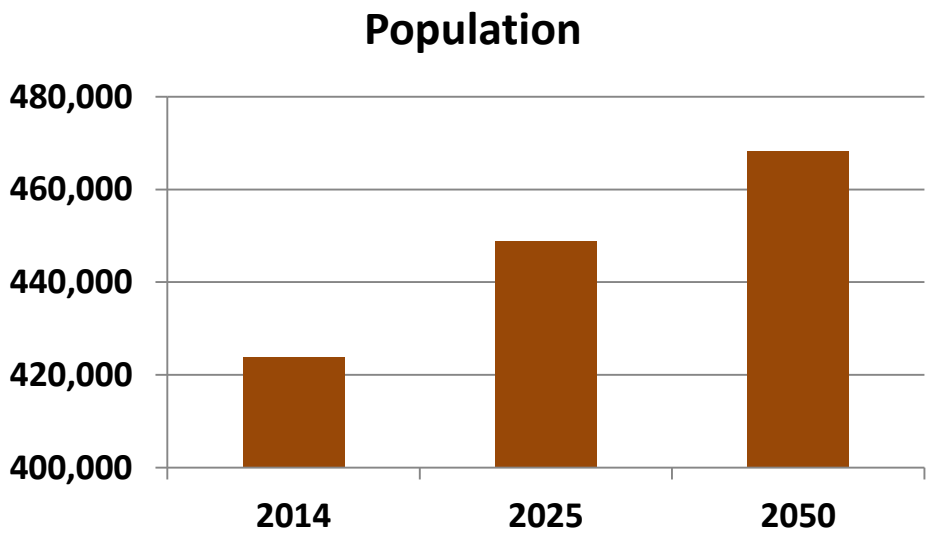
Quick Statistics About Malta

	2014	2025	2050
Area (km^2)	316		
Population Density	1,341	1,420	1,481
Number of employees	159,952	170,891	181,680

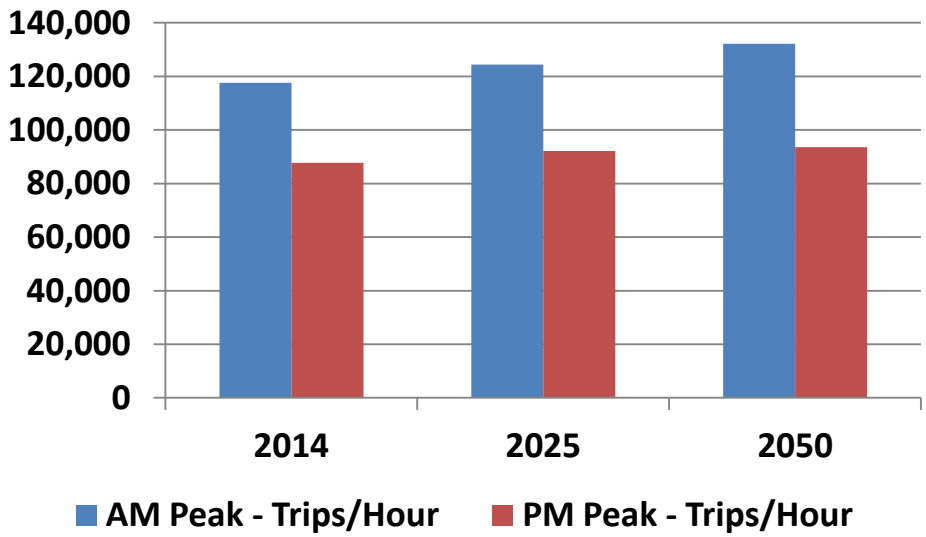


Values estimated at 2015

Quick Statistics About Malta

Transport Malta

	2014	2025	2050
Total road network	2,856 km		
Public Transport Network	2,612 km (all routes)		
Annual PT Trips	56,725,868	59,077,000	60,729,000
Daily Trips All Modes	1,107,458	1,168,000	1,239,000



Values estimated at 2015

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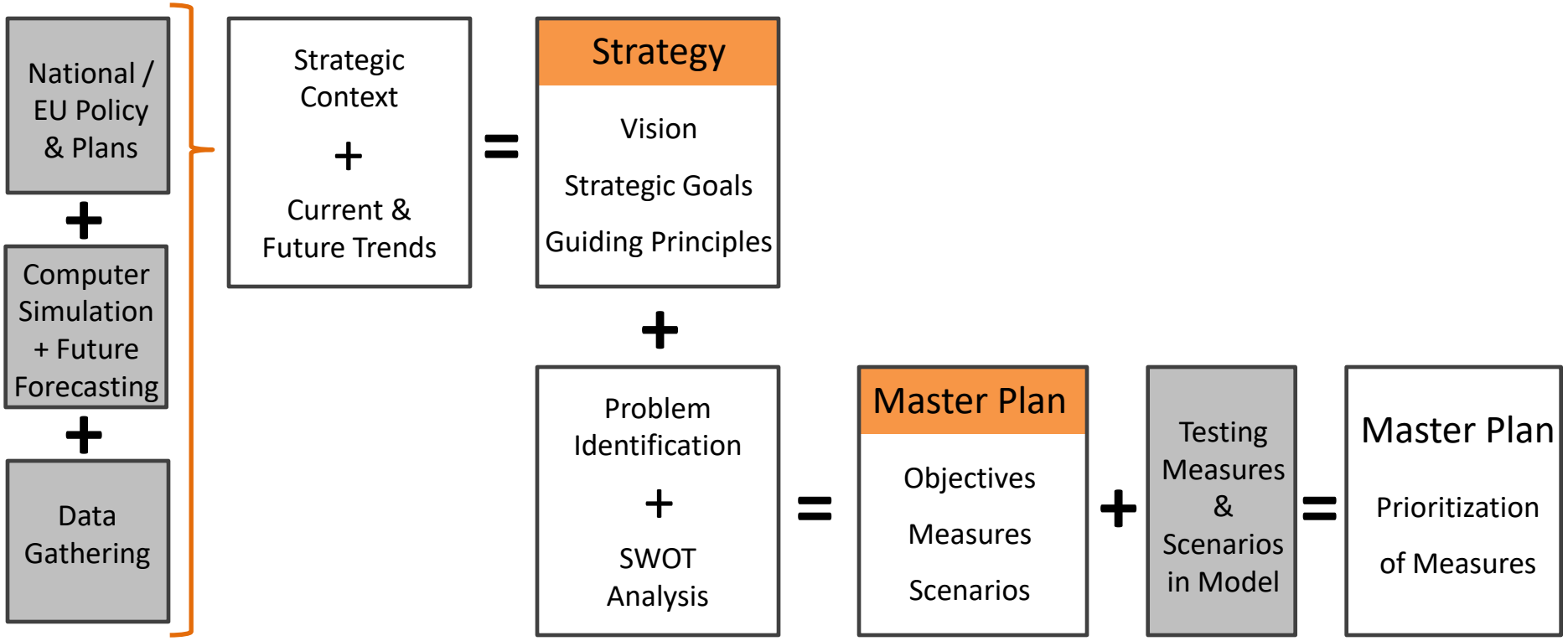
Logical Development of the Strategy and Master Plan

Transport Malta



- **In accordance with DG-REGIO and JASPERS guidance notes**
- **Process continuously supported and reviewed by JASPERS**
- **Technical support by INECO / Systematica consortium**

Transport Malta

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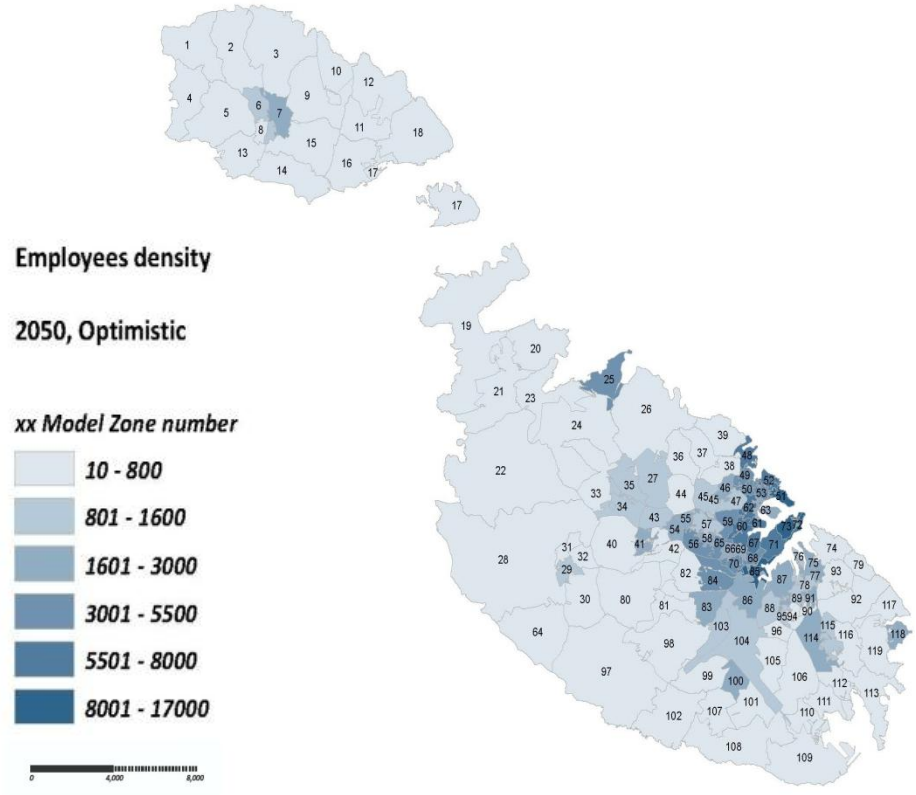
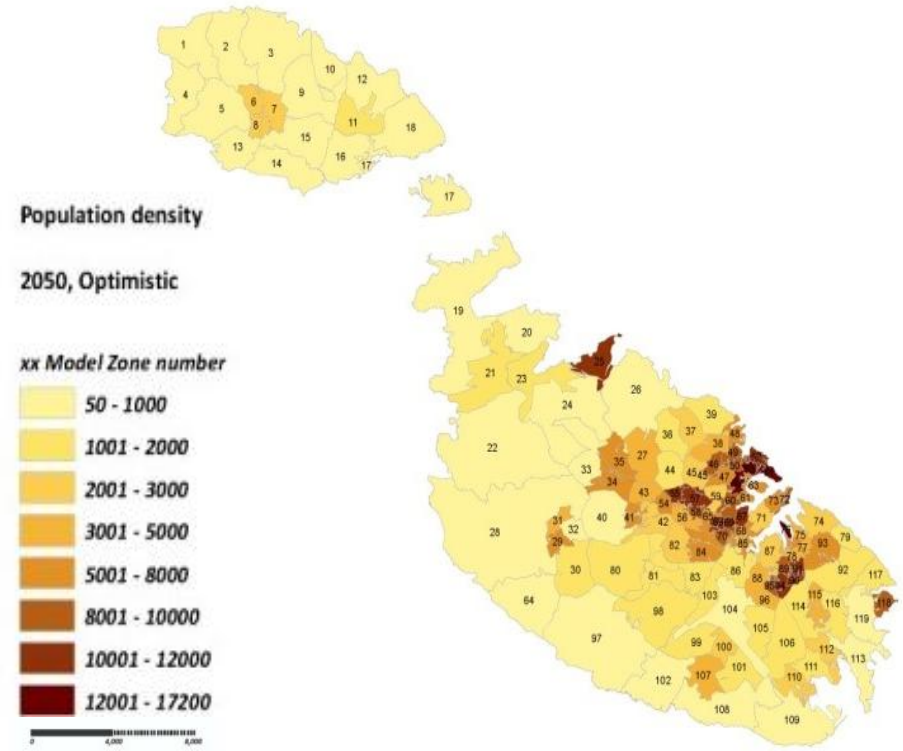
Transport DEMAND

Transport Malta

Employees density



Population density



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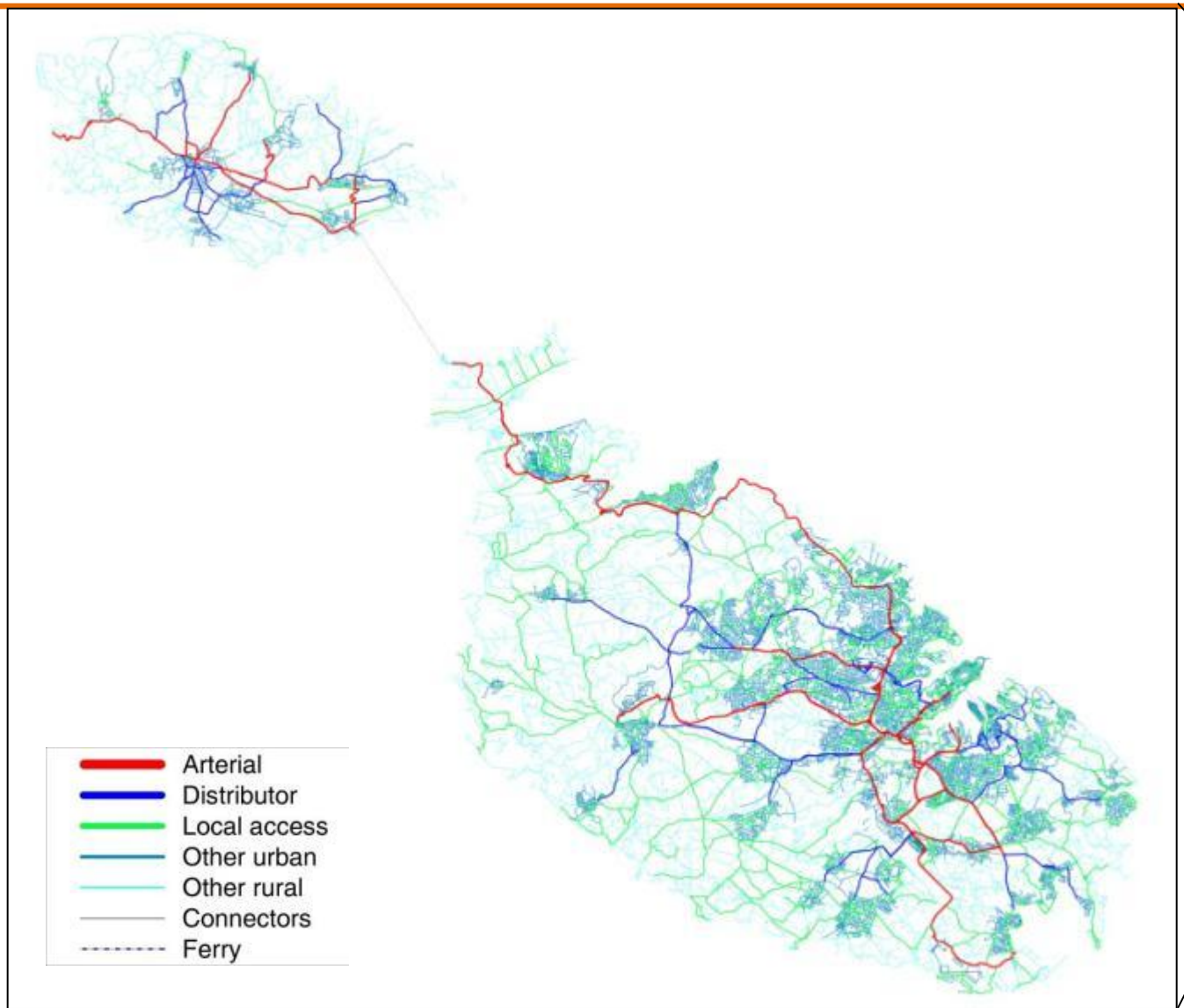
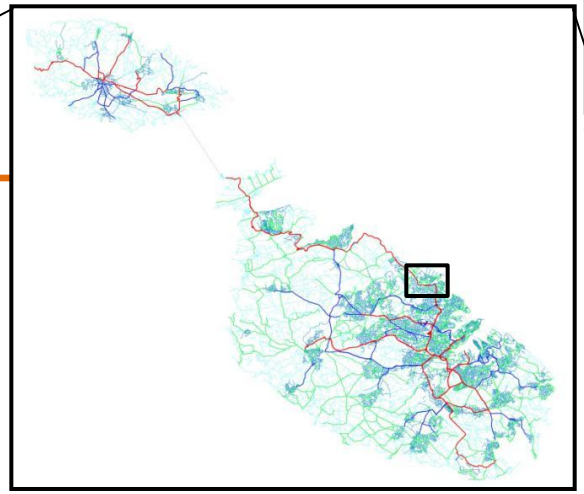
Modelling Software INPUT: Characteristic of the roads

Transport Malta

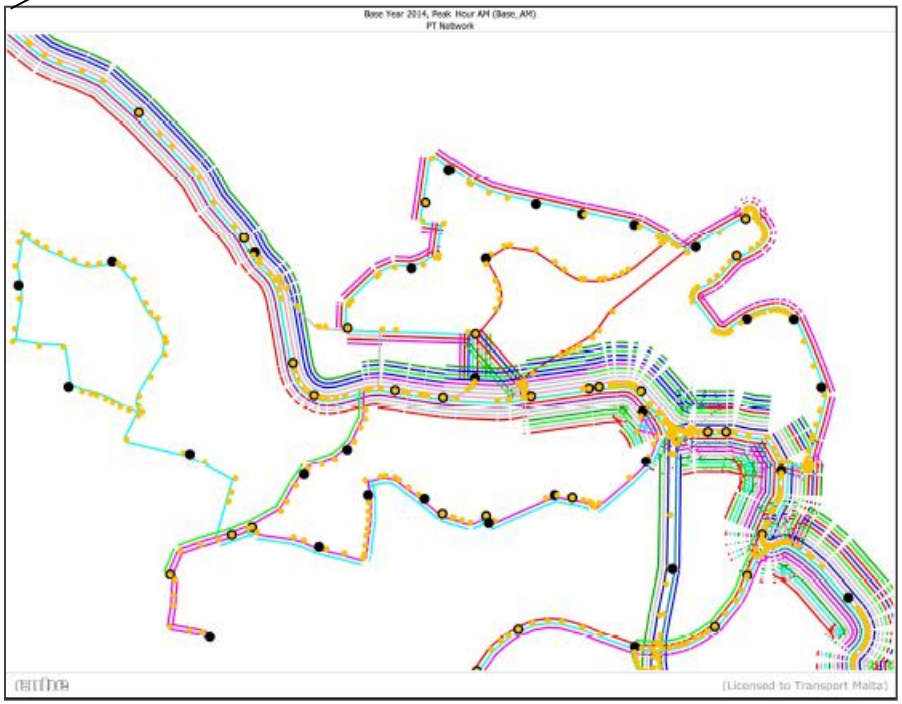


Transportation SUPPLY

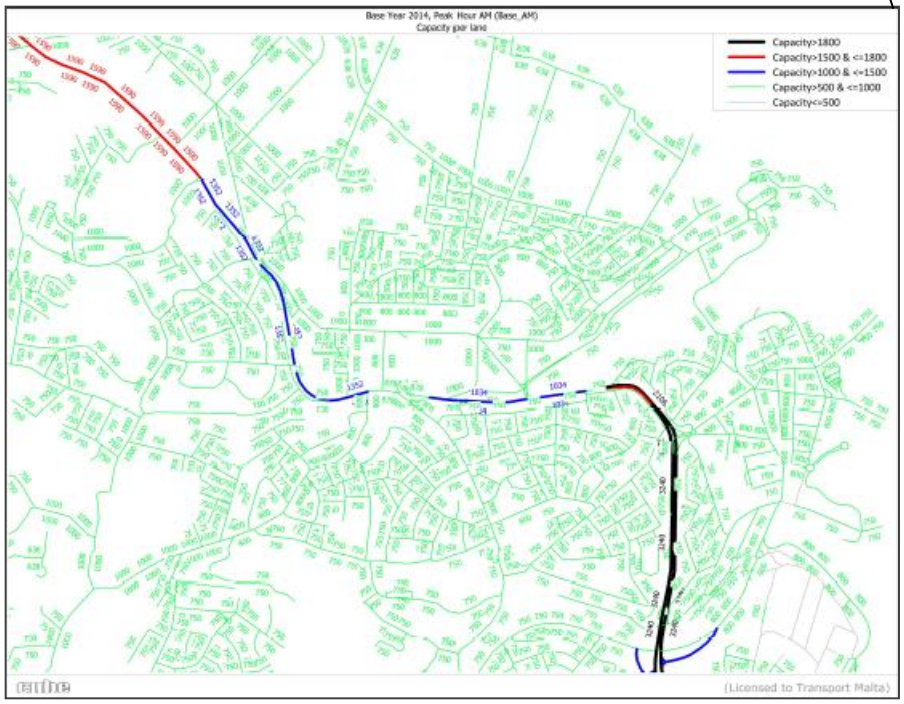
Transport Malta



Public Transport Network (PT)



Road Network (HW)



Sample: Pembroke area

Transport Malta

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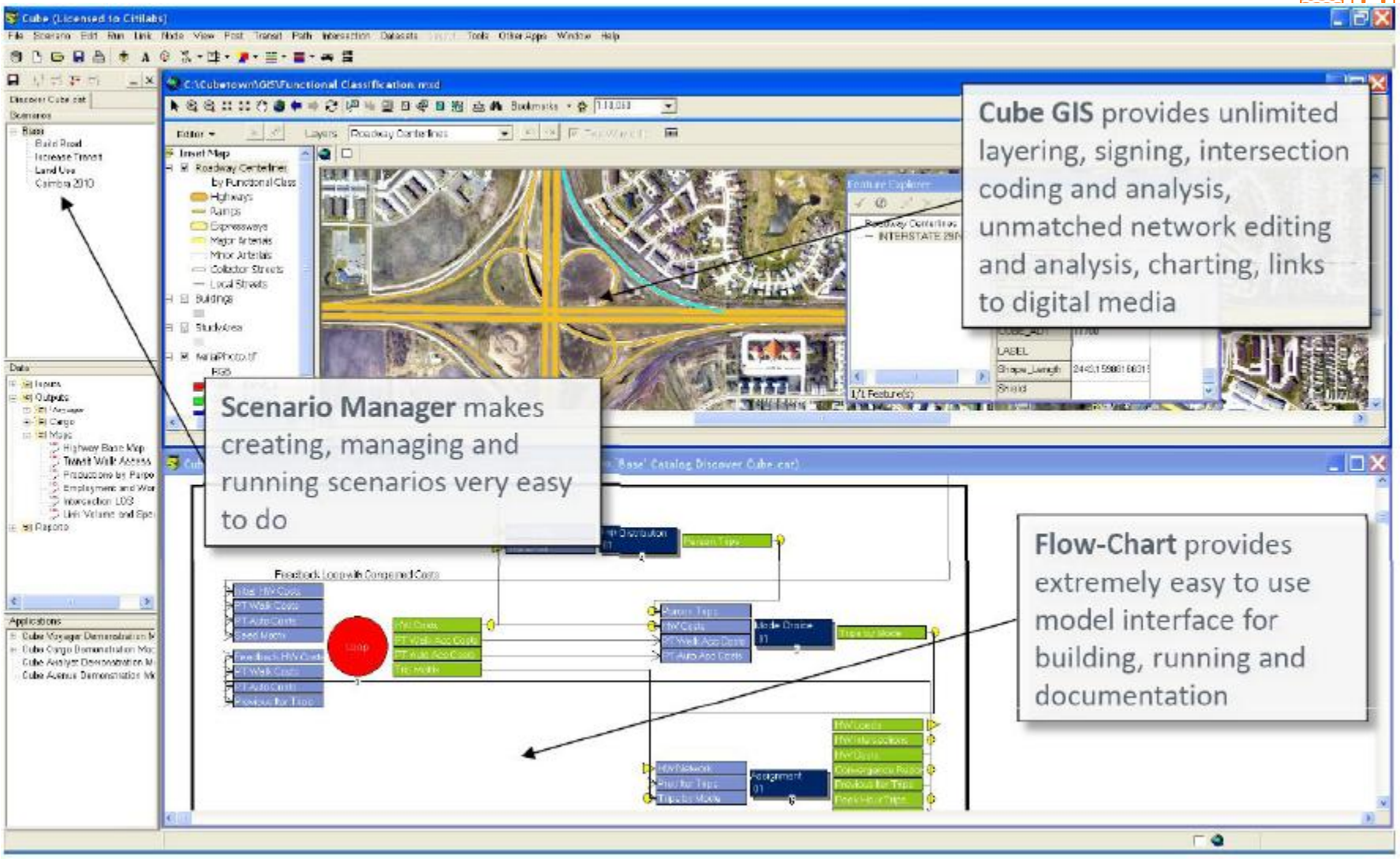
Cube Voyager Suite Key features (Citilabs)

Transport Malta



Modelling Software Demonstration: Final Model Framework

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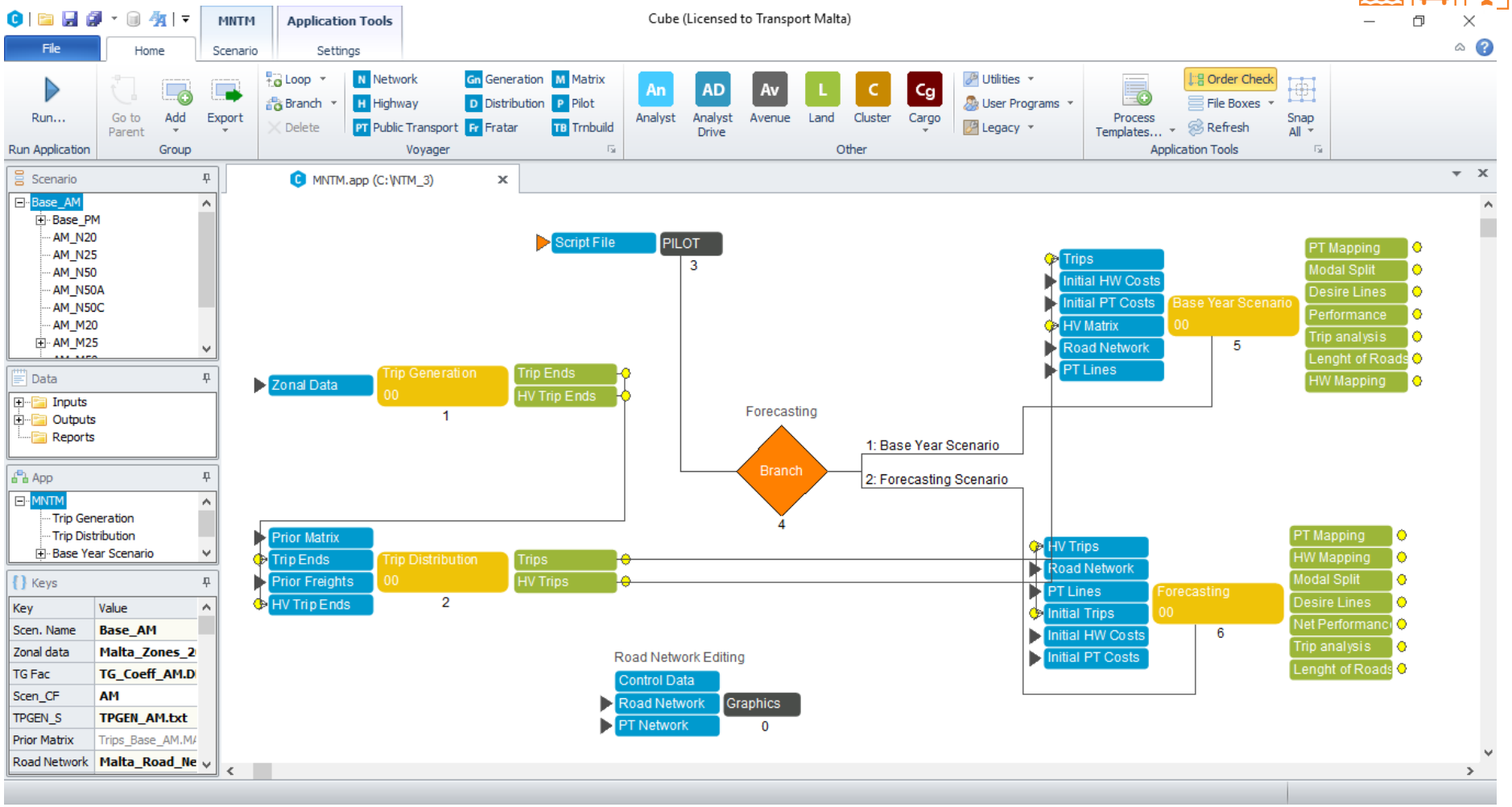

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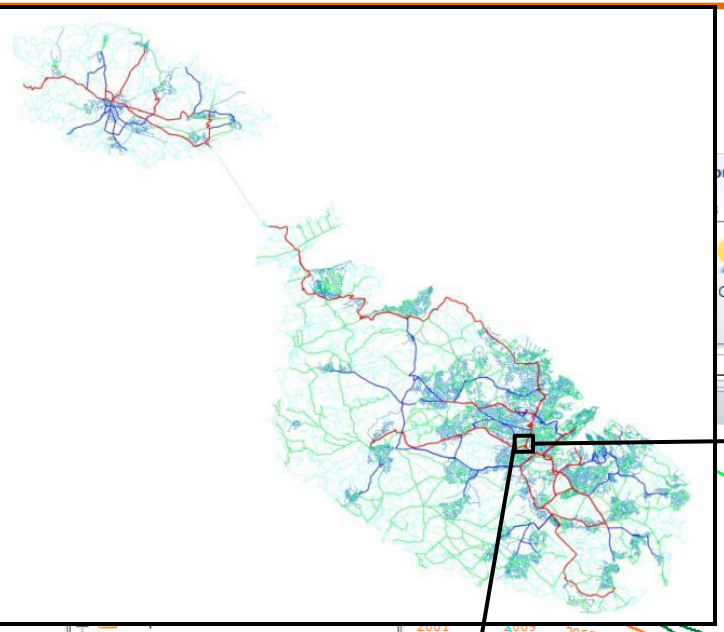
Modelling Software Demonstration: Example of Road Network Layer

Transport Malta



Comparison – 'Base Year' 2014 AM Peak

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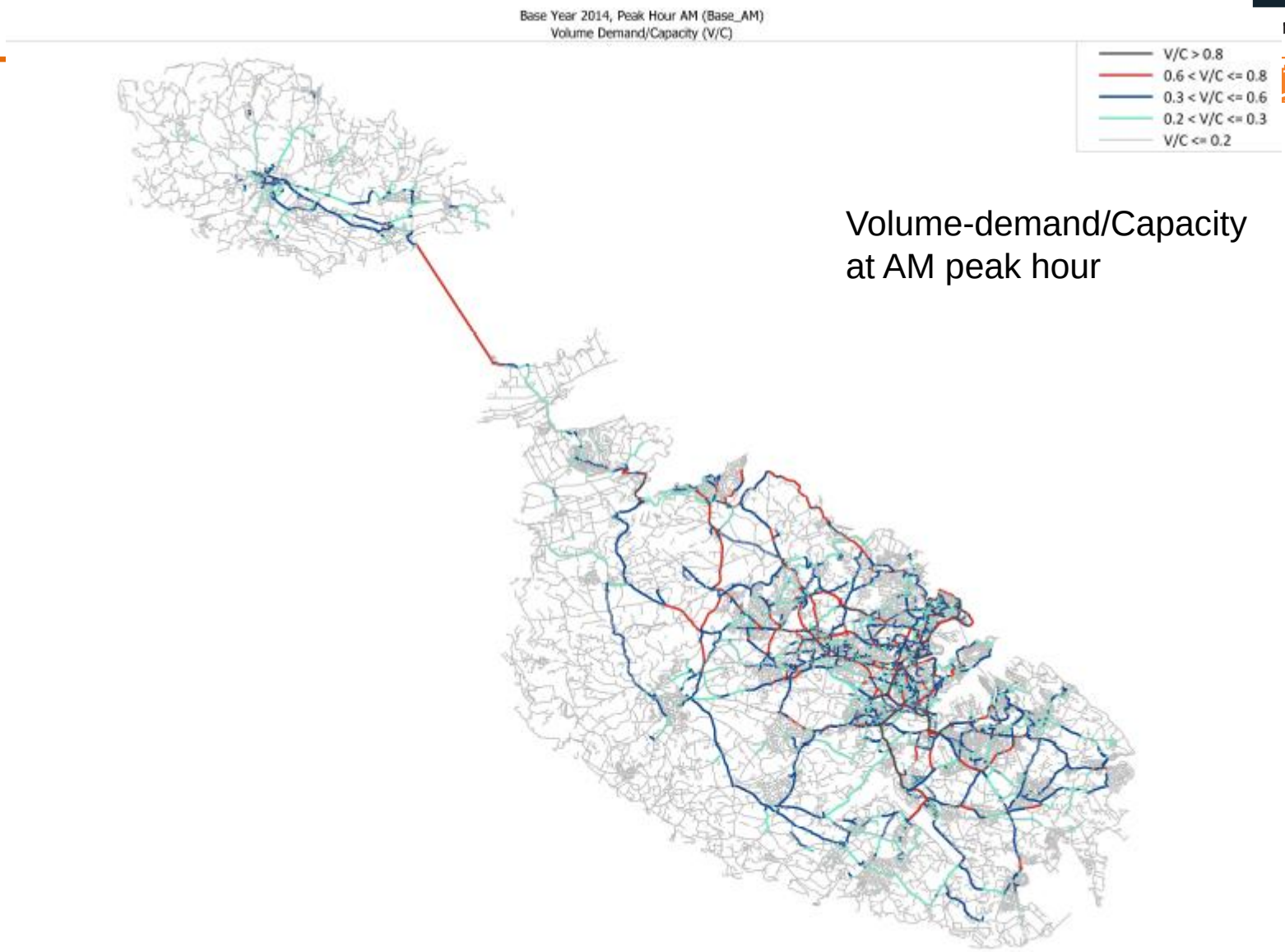
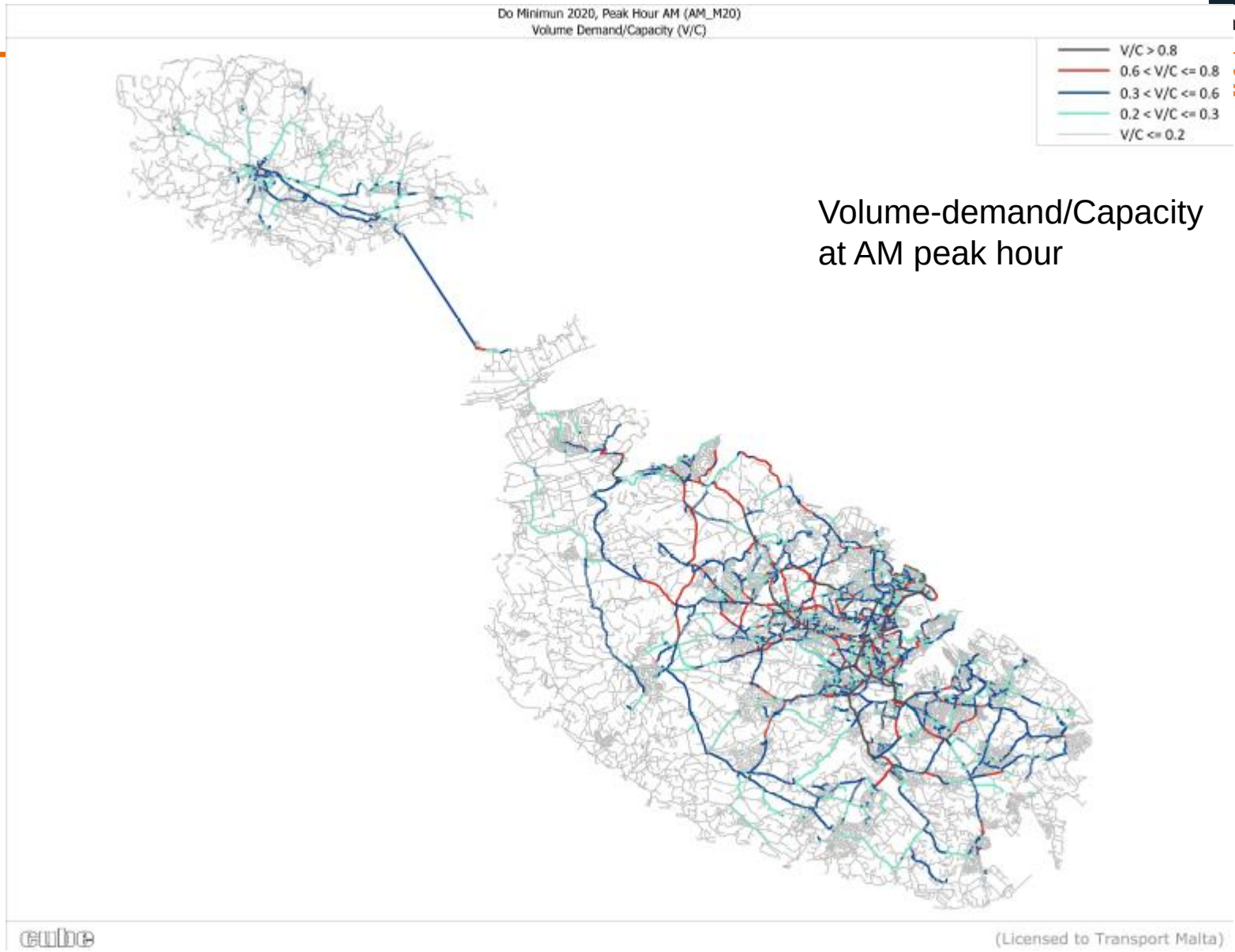


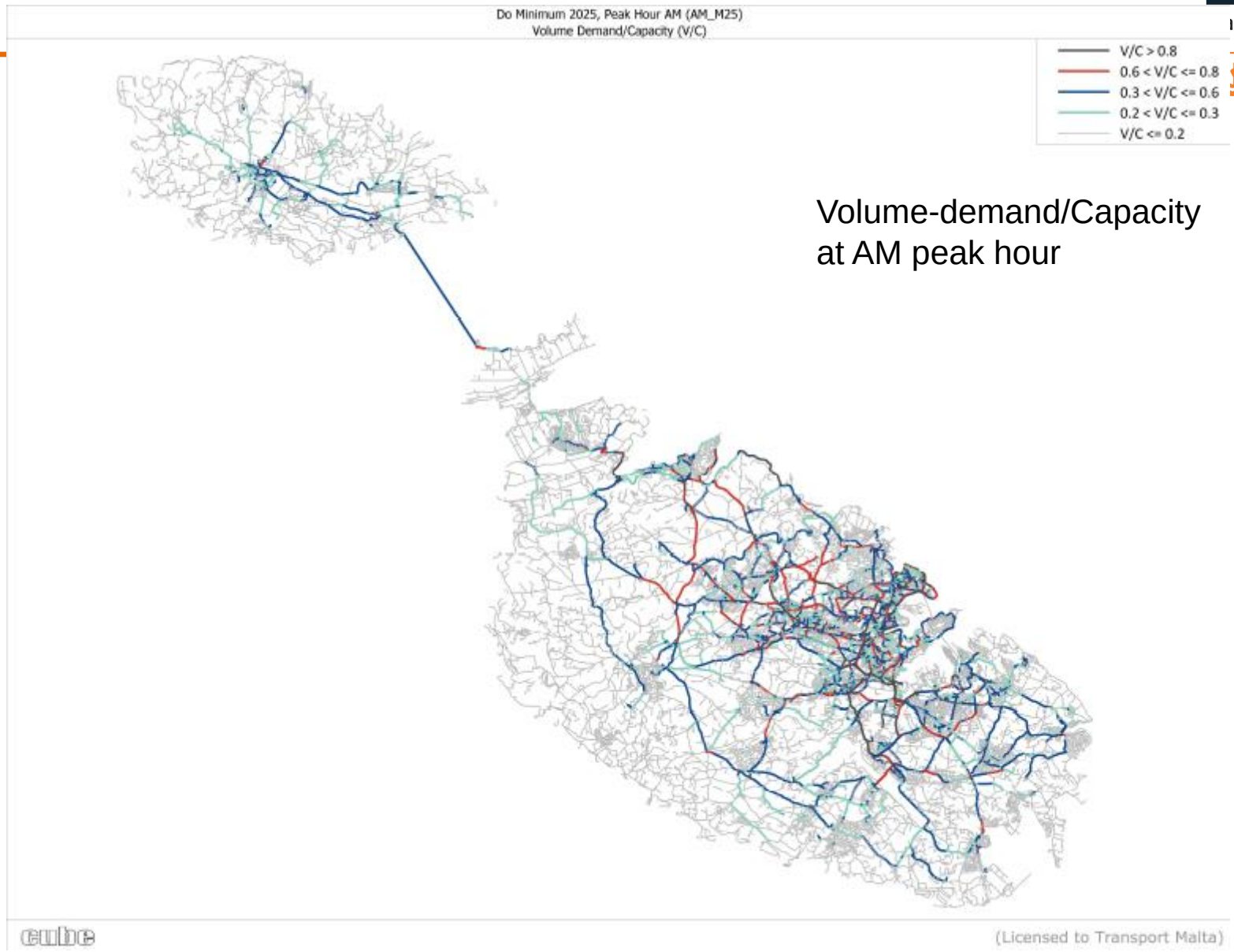
Volume-demand/Capacity at AM peak hour

Comparison – 'Do Minimum' Year 2020 AM Peak



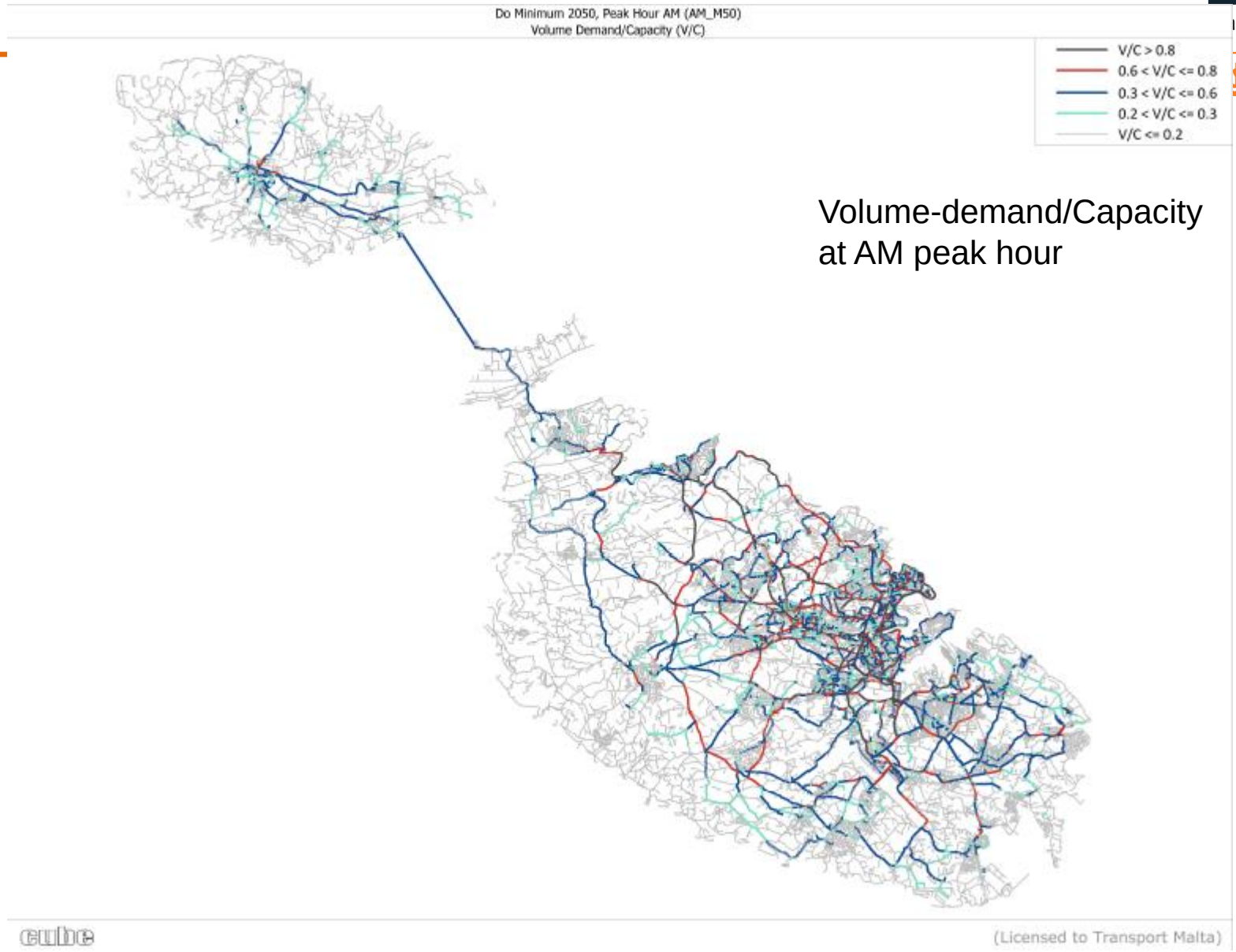
Volume-demand/Capacity at AM peak hour

Comparison – 'Do Minimum' Year 2025 AM Peak



Volume-demand/Capacity at AM peak hour

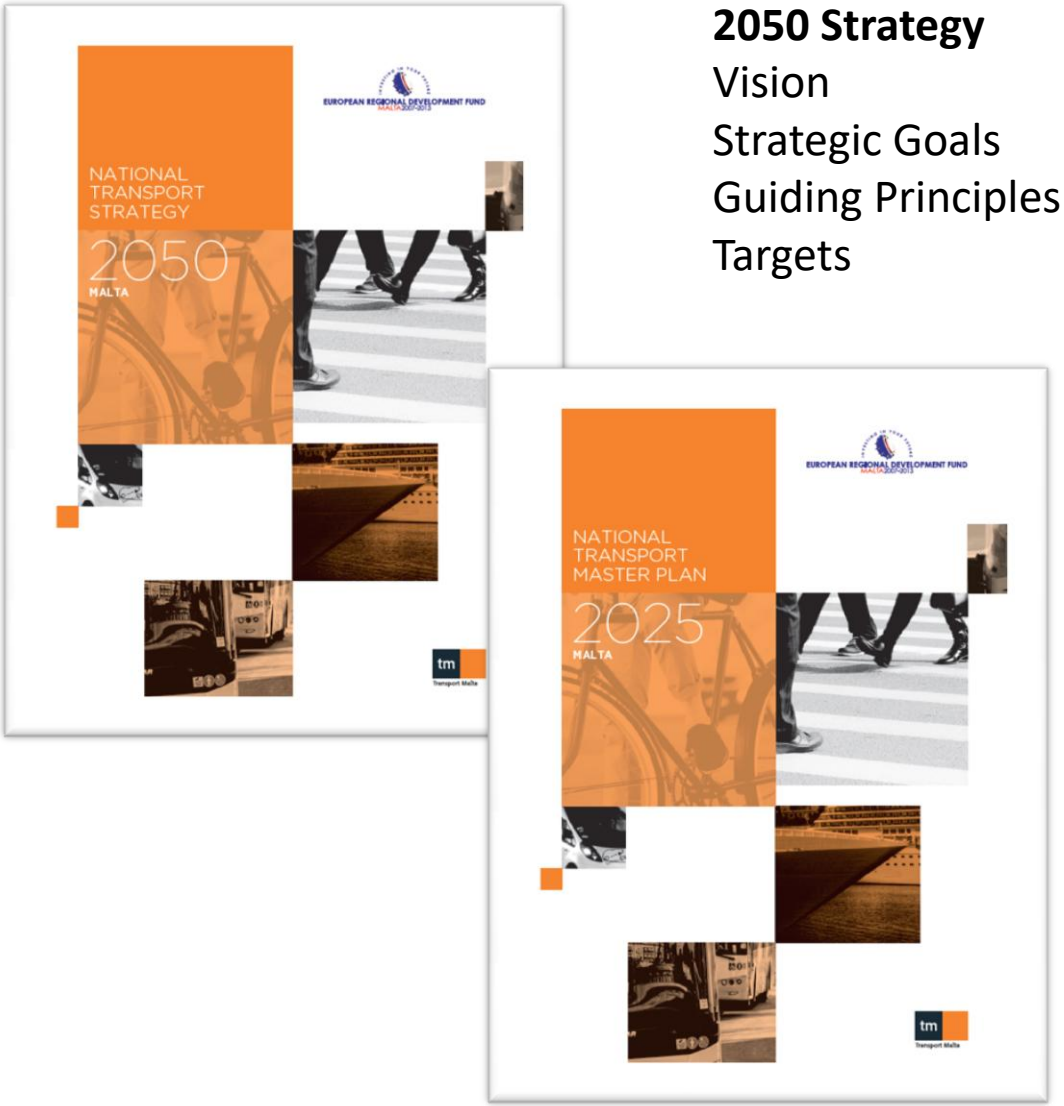
Comparison – 'Do Minimum' Year 2050 AM Peak



Volume-demand/Capacity at AM peak hour

Final Deliverables

Transport Malta



2050 Strategy

Vision
Strategic Goals
Guiding Principles
Targets

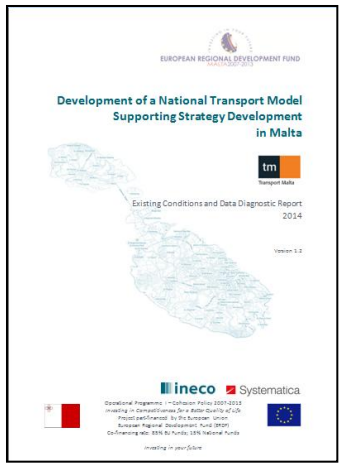
2025 Master Plan

Operational Objectives
Sector Measures
Appraisal of Measures
Appraisal of Policy Scenarios
Environmental Considerations
Preferred Option
Targets, Delivery and Timelines
Monitoring
Conclusion

Final Deliverables - Supporting Documents

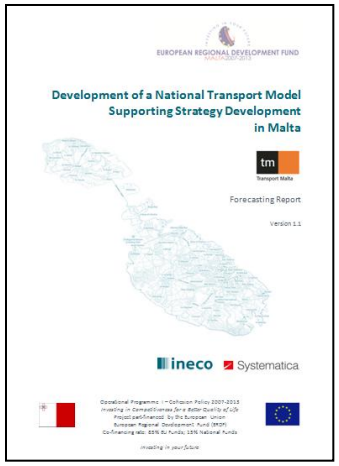
Transport Malta

Existing Conditions Report



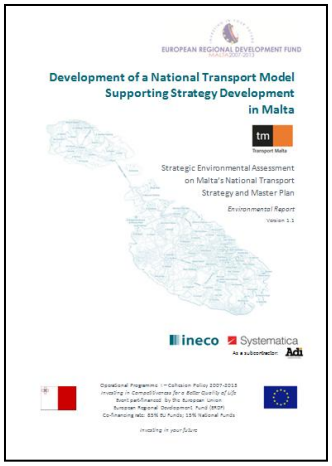
Base Year Model Report

Forecasting Report



Strategic Environmental Assessment

Technical User Manual



Additional Data Report

Transport Malta

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Limitations/difficulties encountered

Transport Malta

- **Tourism's** impact in Malta
- Limitation of the academic and research staff since there is **only one University** in Malta
- How to deal with **different results** from different Models
- **GDP forecasting** (from different entities)
- **Difficulties on insufficiently** accuracy dataset
- **Data estimation** since was no clear where people working and living
- **Moving of resources** from the organizations

Transport Malta

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http://www.transport.gov.mt/transport-strategies/strategies-policies-actions/national-transport-strategy-and-master-plan

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www.transport.gov.mt

Thank you