



Transport Malta

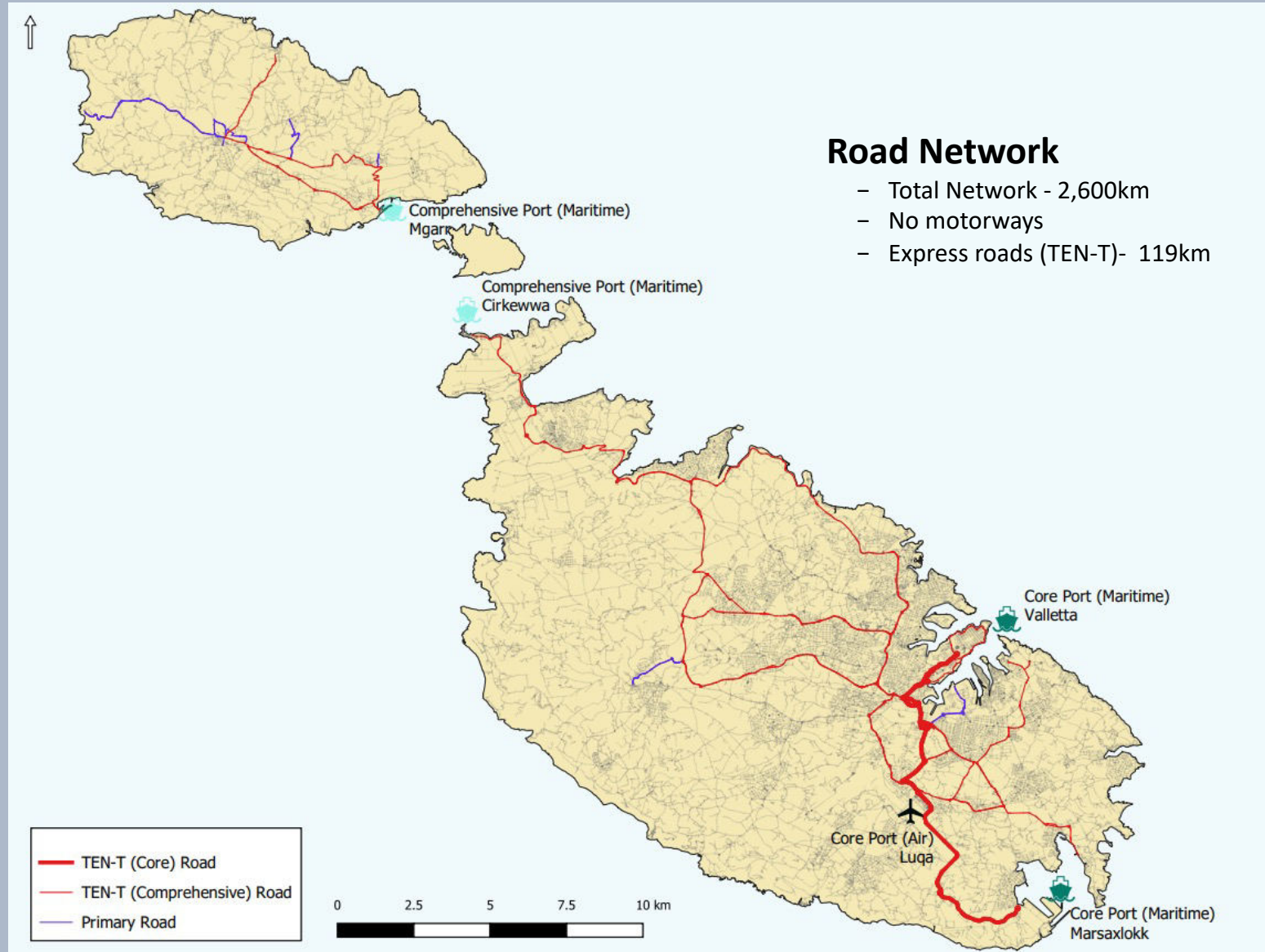


Using iRap to inform Prioritise and Develop in Malta

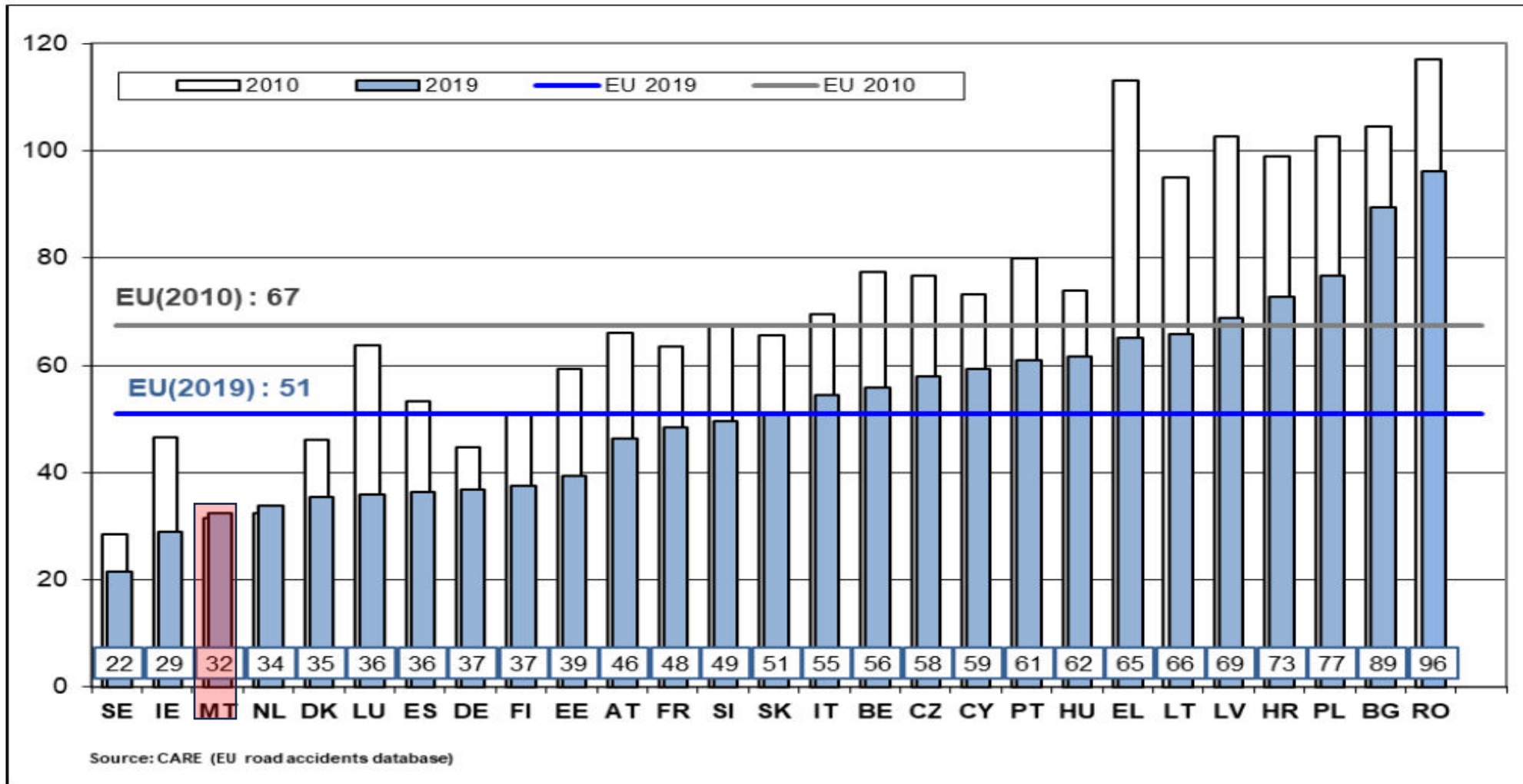
Mr. David Sutton – Transport Malta

25th September 2023

Malta's Road Network



Road Fatalities per Million Inhabitants

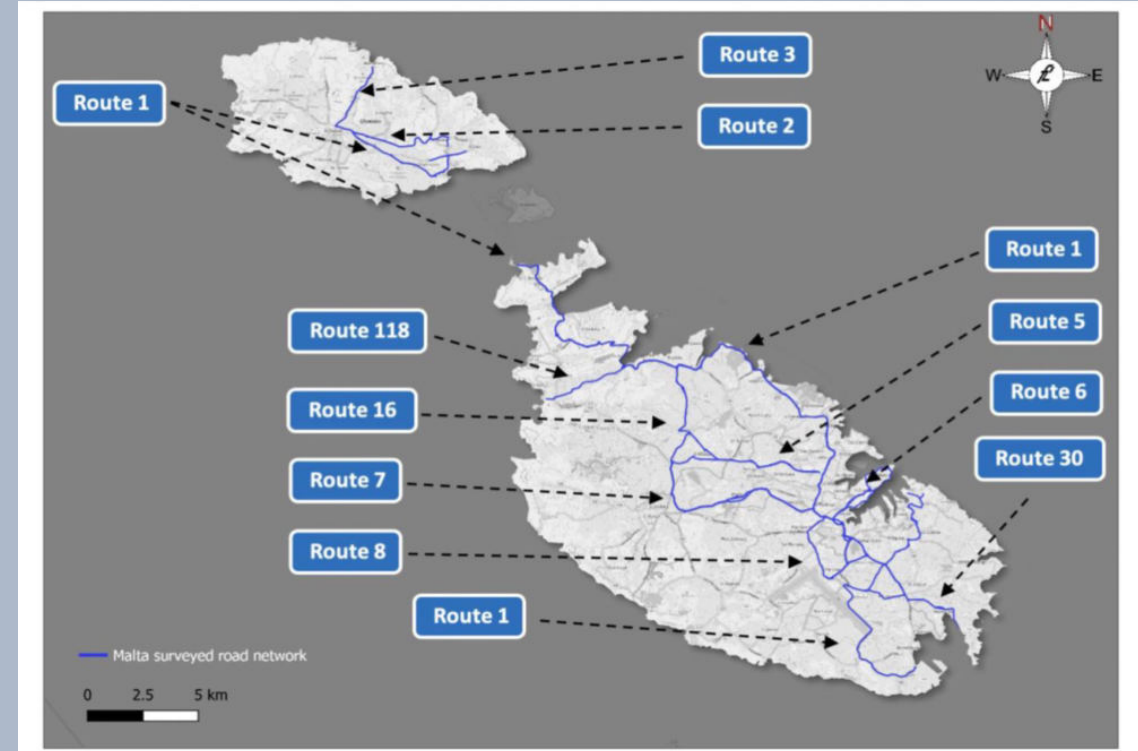


Road Infrastructure Safety Management

- 2021/22 technical support through EIB “Safer Transport Platform)”
- Knowledge transfer and training in new requirements of RISM directive: Targeted Road Safety Inspections and Networkwide Road Safety Assessment (NwRSA)

(NwRSA) iRAP Pilot Project (2021-2022)

- Strategic Road Network (TEN-T+ Primary roads) 63 sections 160km
- Data collection: video data survey according to the iRAP Survey and Coding Specification
- Data Coding:
 - Traffic volumes / operating speeds from National Transport Model
 - Pedestrian / Cycle flows estimated
 - Coding outsourced to University of Zagreb
- Pilot project - 8 months (video survey to final report)



Initial Feedback on iRAP Pilot Project

Transport Malta – a first time user

Road Data

- Road Attribute Maps enables focussed assessment of different aspects of road infrastructure safety e.g facilities for bicycles, roadside severity
- Condition reports, Road Attribute Matrix / Snapshot provide useful statistical analyses

Star rating

- Simple and objective evaluation of the road safety level for different road users
- Pro-active tool – useful for new roads
- Easy to communicate road infrastructure safety issues / locations with stakeholders /politicians
- Easy to Identify target areas / target road users for road infrastructure safety action plans

FSI map

- Not accurate for Malta - Malta Police do not provide exact location of collisions (cluster analyses difficult)



Initial Feedback on iRAP Pilot Project

Transport Malta – a first time user

Safer Roads Investment Plans (SRIP)

Very useful tool:

- Identifies potential safety countermeasures itemised and costed (using local costs)
- Guides NRAs to prioritise maintenance / new investment
- Can develop robust financing plan for safer roads with forecast accident reduction savings
- Easier to justify to Ministry for Finance / EU for applications for funding of road safety

Filter 1 - Sandbox > FPZ > Malta

Safer Roads Investment Plan
Currency: € EUR - Analysis Period: 20 years

Total FSIs Saved	Total PV of Safety Benefits	Estimated Cost	Cost per FSI saved	Program BCR
628	97,594,729	35,794,607	57,025	3

Countermeasure	Length / Sites	FSIs saved	PV of safety benefit	Estimated Cost	Cost per FSI saved	Program BCR
Traffic calming	21.80 km	150	23,343,521	4,055,980	27,015	6
Roadside barriers - driver side	22.90 km	106	16,448,229	6,274,500	59,311	3
Roadside barriers - passenger side	23.90 km	97	15,037,111	6,561,400	67,843	2
Pedestrian fencing	14.00 km	41	6,418,170	1,190,000	28,828	5
Side road signalised pedestrian crossing	40 sites	41	6,344,804	2,597,073	63,642	2
Clear roadside hazards - driver side	14.40 km	26	4,003,707	2,775,360	107,779	1
Delineation and signing (intersection)	51 sites	25	3,810,768	1,187,840	48,464	3
Clear roadside hazards - passenger side	9.70 km	17	2,583,791	1,859,021	111,867	1
Shoulder rumble strips	27.10 km	13	2,089,935	418,009	31,098	5
Protected turn lane (unsignalised 3 leg)	7 sites	12	1,843,220	1,241,424	104,717	1
Protected turn lane (unsignalised 4 leg)	5 sites	12	1,856,605	1,207,104	101,088	2
Protected turn provision at existing signalised site (4-leg)	5 sites	11	1,652,088	1,548,737	145,754	1

Sharing Experiences

After 6 months of using iRAP

Overall, the application of iRAP methodology has provided a very good assessment of the current level of safety and risks of the Maltese strategic road network.

Some practical observations:

- Check coding carefully – observed coding errors in operating speed and cycling infrastructure led to unexpected results and have major impacts on star rating.
- Investment Plan refers a lot to traffic calming as a recommended countermeasure even on 80 km/h roads. In Malta most traffic calming measures applied only on roads <50km/h.
- FSI estimates look odd - probably due to lack of accurate location for KSI crash data provided by the Malta Police.
- Malta team has learned basics from online research, help from users in other countries - but formal training is needed.
- iRAP tried and tested methodology - Community of users always there to provide guidance and advice.

Some queries

- Not economic for Malta set up administrative infrastructure to carry out its own data coding for a few weeks every five years, what do other National Road Authorities do?
- EU RISM requirement for NwRSA to be carried out at least every 5 years – what periodicity is most practical?