



The International Road Assessment Programme

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→ www.irap.net

*i*RAP
INTERNATIONAL ROAD ASSESSMENT PROGRAMME





Who are we?

- 1. Safety is my principal role**
- 2. Safety is one of my many responsibilities**
- 3. Other**

International Road Assessment Programme

RAP formed as sister to NCAP

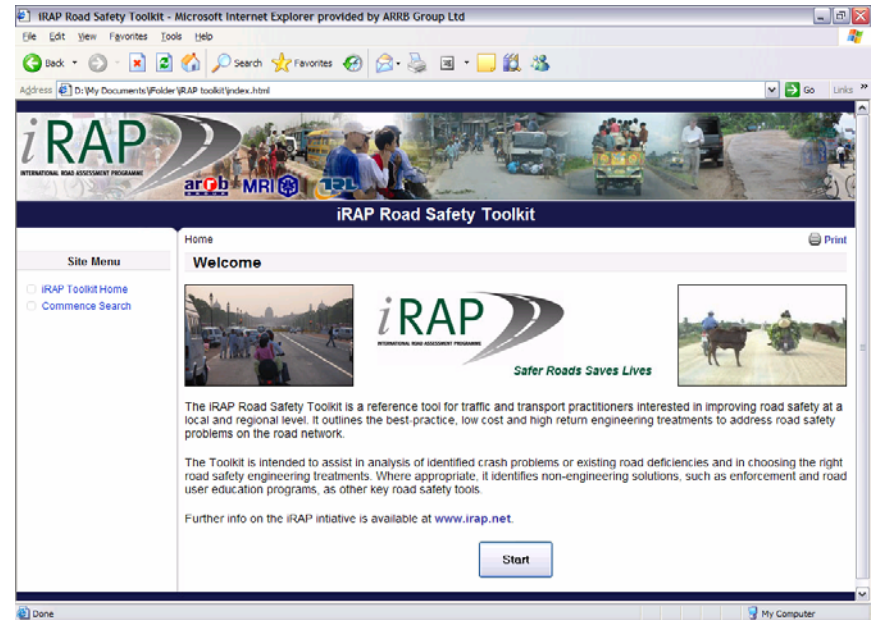
→ partnership of auto clubs and top performing countries

Response to:

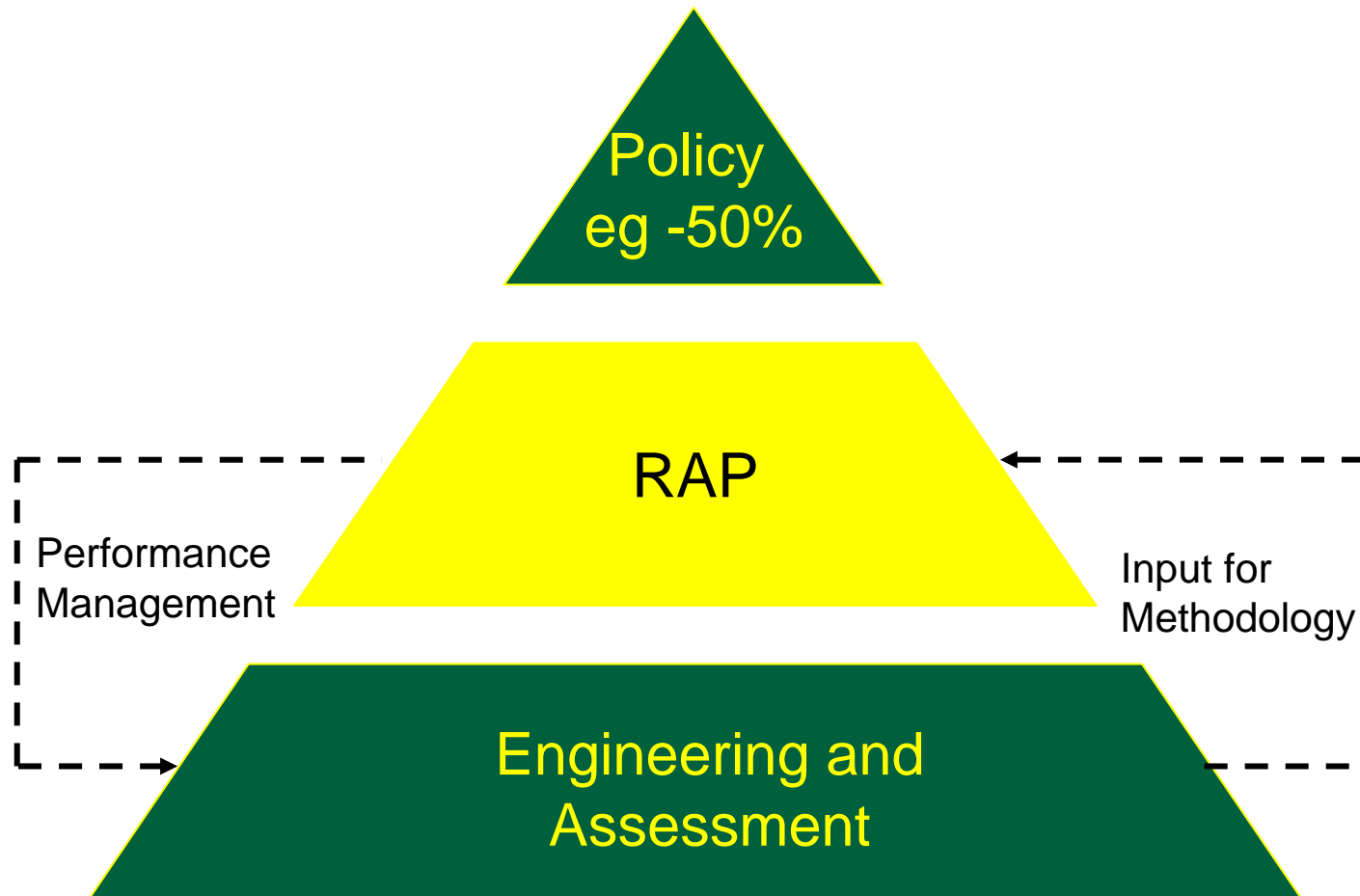
- targets to cut deaths by 50%
- vision zero
- 3% loss of global GDP

iRAP strategic, global agenda

→ generate large affordable programmes which fix roads



RAP's Role

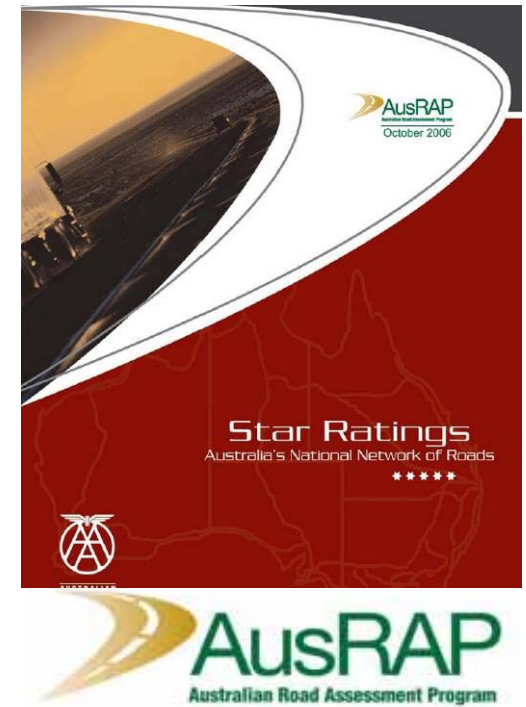
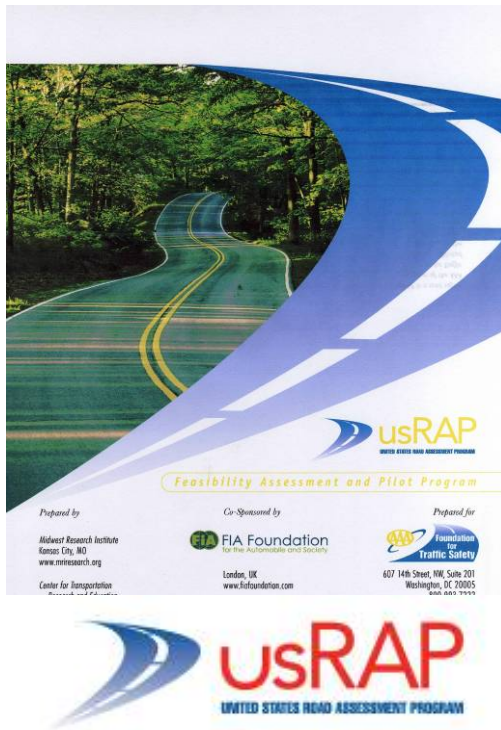


From Arctic to Mediterranean

EuroRAP quickly spread from 3 to 20+ countries



... then to developed countries worldwide





2006 MoU with World Bank Global Road Safety Facility



A Safe Road System

Road



Vehicle

Behaviour

a shared responsibility

The Key is Managing Energy



The human body cannot withstand an uncushioned impact of more than 40 kph

Even a 4 star car cannot protect above 70 kph

Vision Zero: 5-star drivers in 5-star cars on 5-star roads

Crashes that Kill - Vehicle occupants and riders

1. Head-on crashes
2. Brutal side impacts at junctions
3. Run-off crashes

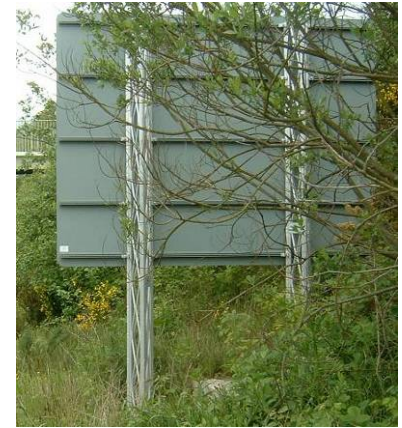


Crashes that Kill - Pedestrians and cyclists

1. Crossing the road
2. Moving along the road
with other traffic



Cutting occupant deaths



Cutting "vulnerable" road user deaths



The task is dysfunctional roads



Large scale Network Safety Upgrading Programmes -
effective, affordable, high return measures to prevent & protect

Three RAP International Protocols

1. Risk Mapping

Maps showing risks users face
Extra mapping for authorities

2. Performance Tracking

Measuring high risk roads removed

3. Star Rating

Showing standards of road protection



Protocol 1: Risk Mapping

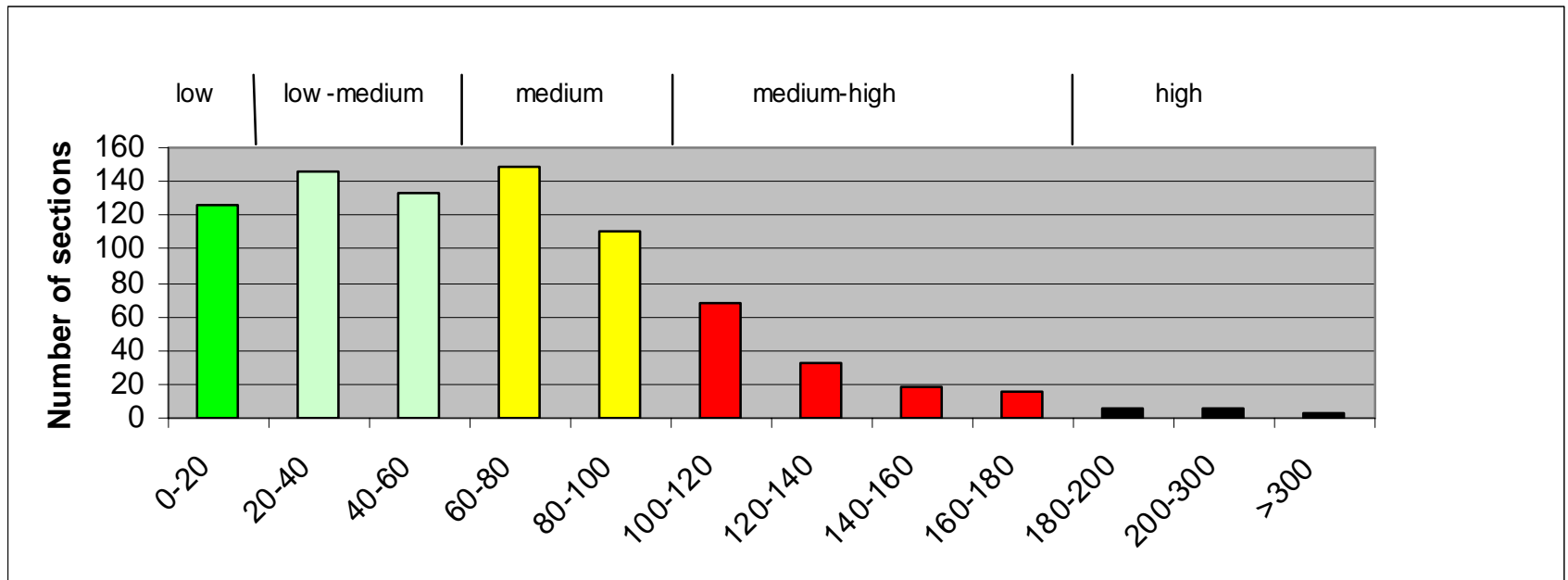


Mapping your risk of death and serious injury

Protocol 2 : Performance Tracking

were fewer people killed on this road?

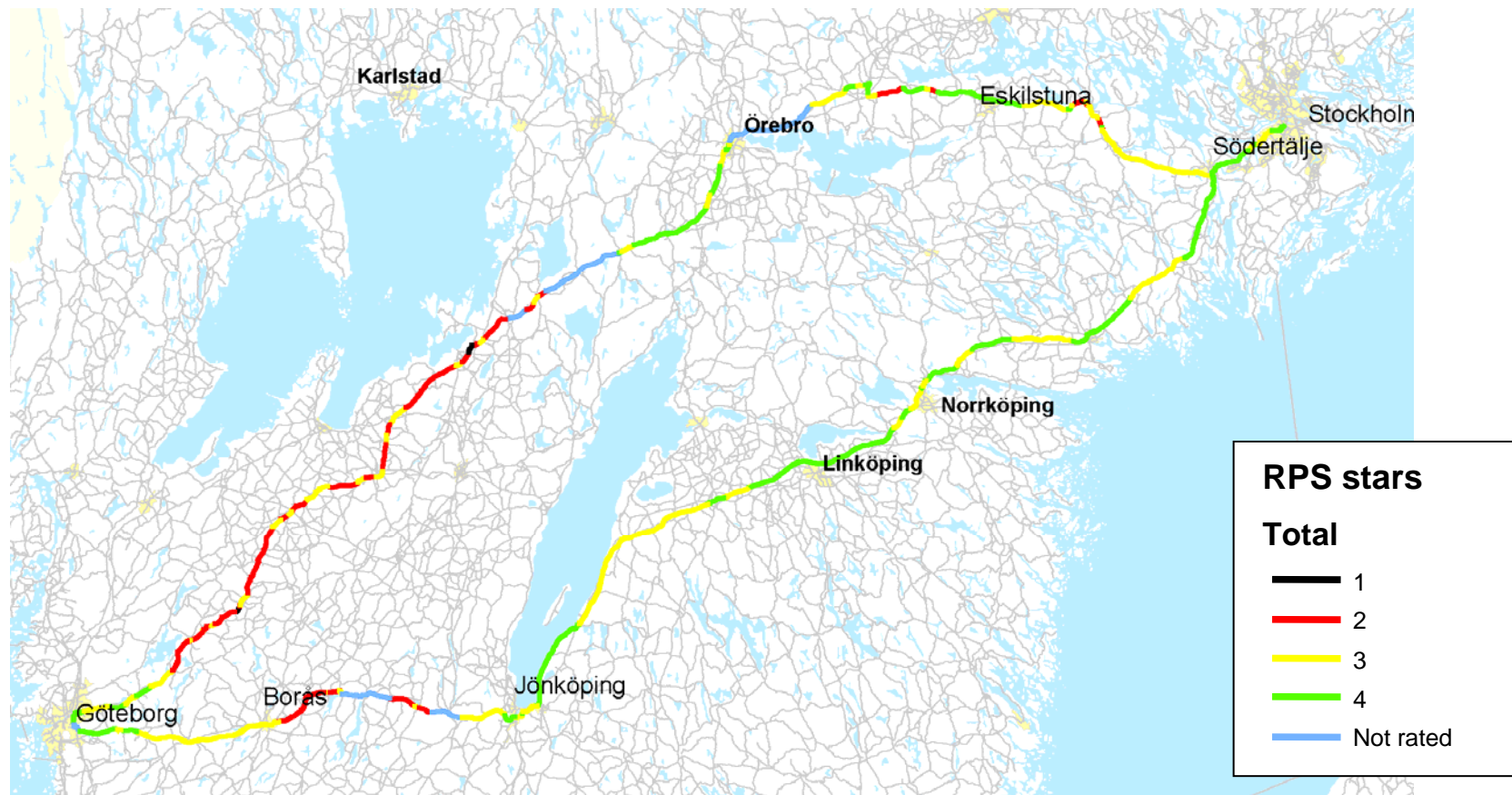
what counter-measures worked?



eg GB & E have removed 10% high risk roads per annum

Protocol 3: Star Rating

inspection and the road protection score



RAP Communications

frequently front page or national TV news

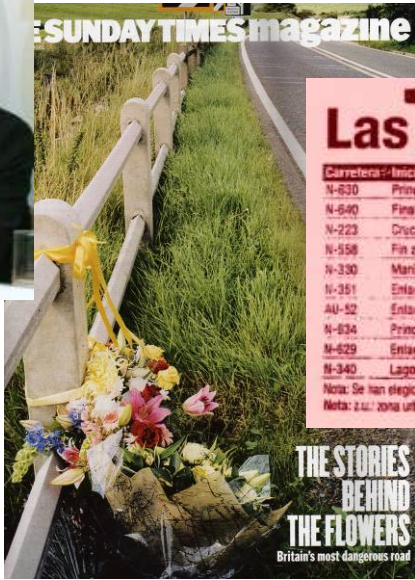
measured, culturally tailored advocacy



Las 10 más negras

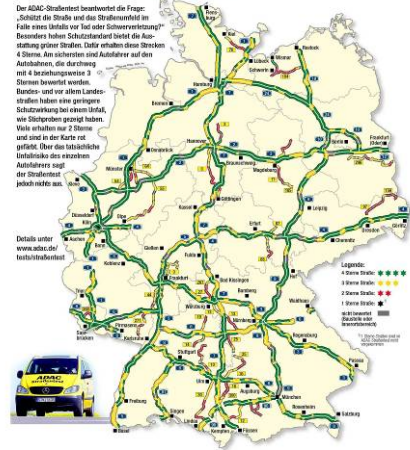
Carretera	Inicio	Final	Km	IMD	Provincia	Riesgo
N-630	Principio z.u. de Zamora	Final z.u. de Zamora	1,6	8.351	Zamora	898,7
N-640	Final z.u. de Caldas	Vilagarcía de Arousa	12,1	5.679	Pontevedra	851,2
N-223	Cruce con N-234	Principio z.u. de Teruel	9,4	8.000	Teruel	370,8
N-558	Fin z.u. de Pontevedra	Puerto de Mazín	4,8	13.400	Pontevedra	425,0
N-330	María de Huerva	Principio z.u. de Zaragoza	11,5	7.523	Zaragoza	415,3
N-351	Enlace con N-340	Comienzo Autovía	1,4	8.676	Valencia	389,9
AU-52	Enlace Parafios	Enlace Vilasabros	1,4	8.676	Valencia	389,9
N-634	Principio z.u. de Vilapedre	Final z.u. de El Escor	1,4	8.676	Valencia	389,9
N-629	Enlace con A-6	Final z.u. Colindres	1,4	8.676	Valencia	389,9
N-340	Lagos	Enlace Nerja	1,4	8.676	Valencia	389,9

Nota: Se han elegido sólo aquellos tramos con una IMD superior a 3.000.
Nota: z.u.: zona urbana (travesía o circunvalación)



ADAC-Straßentest 2005

Der ADAC-Straßentest beantwortet die Frage: Sichert die Straße und das Straßennetz im Falle eines Unfalls vor Tod oder Schwerverletzung? Besonders hohen Schutzstandard bietet die Ausgestaltung großer Straßen. Dafür erhalten diese Straßen 4 Sterne. Am schlechtesten sind Autobahnen auf den Autobahnen, die die Strecke mit 4 in der Kategorie 3 Sterne bewertet werden. Bundes- und vor allem Landesstraßen haben eine geringere Schutzwirkung bei einem Unfall, wie Straßen gezeigt haben. Nicht erhalten nur 2 Sterne und sind in der Karte rot geblieben. Über die statistische Einschätzung des aktuellen Autodienstes sagt der Straßentest jedoch nichts aus.



Details unter www.adac.de/straßentest





Transparency and Pluralism

Most engineers embrace it, a few find it difficult

“We owe people the truth about the roads where people die”

→ President of France, 2003

EuroRAP part of EC’s “transparency strategy”

Network Safety Upgrading Programmes
- defining *a new business process*



“A new highway is a routine ‘product’ . It can be designed, built, financed anywhere. We need a product to save lives.”

Network Safety Upgrading – The Business Process

1. Define action
network

find the busy network where large numbers of deaths and maiming injury are concentrated

2. Inspect roads &
map serious deficits

from road inspections, map deficits in lifesaving counter-measures falling below intervention levels

3. Generate safety
upgrading options

generate options of affordable, economically significant, counter-measure packages

4. Evaluate safety
upgrading options

estimate option costs, casualty reduction benefits, and size of economic return. Assess and refine.

5. Recommend
upgrading for action

recommend affordable, high return route and network safety upgrading projects – and action

Network Safety Upgrading – Continuous Improvement

- 1. Collect reliable data** Police and statisticians must ensure serious crashes and risk factors are well recorded
- 2. Track performance** carry out post-project appraisals so that what works, and what does not, is learnt
- 3. Apply what works** Update the evidence base and improve the targeting of efficient life-saving measures

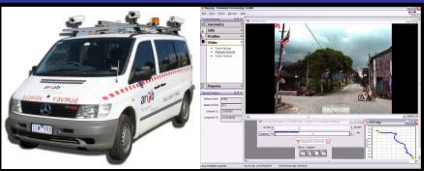
iRAP Tools

Inspection data

Manually through drive through inspections with rating completed using specialized equipment



Using video collection and lab-based processing



Tools

Road Score Calculator

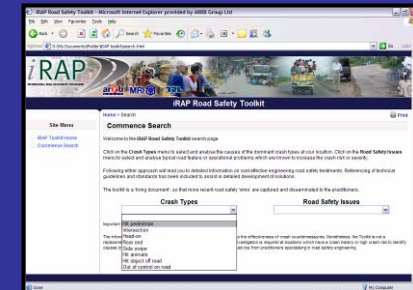
Casualty Estimation Tool

Countermeasure Generation Tool

Economic Appraisal

Reports

- Maps
- Charts
- Tables
- Gateway to engineering tools



Malaysia iRAP Road Safety Report

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Star Rating			Malaysia Background Data (2006)	
Star Rating	Length (km's)	%	Population	26,800,000
★★★★★	140km	5	Road Network	72,000km
★★★★☆	541km	20	Fatalities	6,200
★★★☆☆	1,104km	40	Serious Injuries	47,000
★★☆☆☆	905km	31	Est. Crash Cost	RM 10 billion; 2-3% of GDP
★☆☆☆☆	121km	4	Traffic Mix	48% motorcycles; 42% car; 6% commercial

(Example) Top 5 Potential iRAP Road Safety Improvements	
Motorcycle Facility Upgrades	42km
Delineation Upgrades	380km
Overtaking Provision Upgrades	60km
Intersection Improvements	35 sites
Pedestrian Facilities	12km

iRAP Global Forward Programme

1. Fast expanding high income country programmes

→ national and now regional

2. Rapid rolling out in low and middle income countries

→ Build on pilot

→ Establishing regional centres

