

INTERNATIONAL GOOD PRACTICES IN ROAD INFRASTRUCTURE SAFETY MANAGEMENT (RISM) & LESSONS FOR ROMANIA

Radoslaw Czapski

With contributions from:

Raphael Grzebieta, Robert Moraru, Mara Bubberman

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Infrastructure Safety - Safe System Principles

Best practice Road Infrastructure Safety Management (RISM) systems are aligned with modern **Safe System** principles:

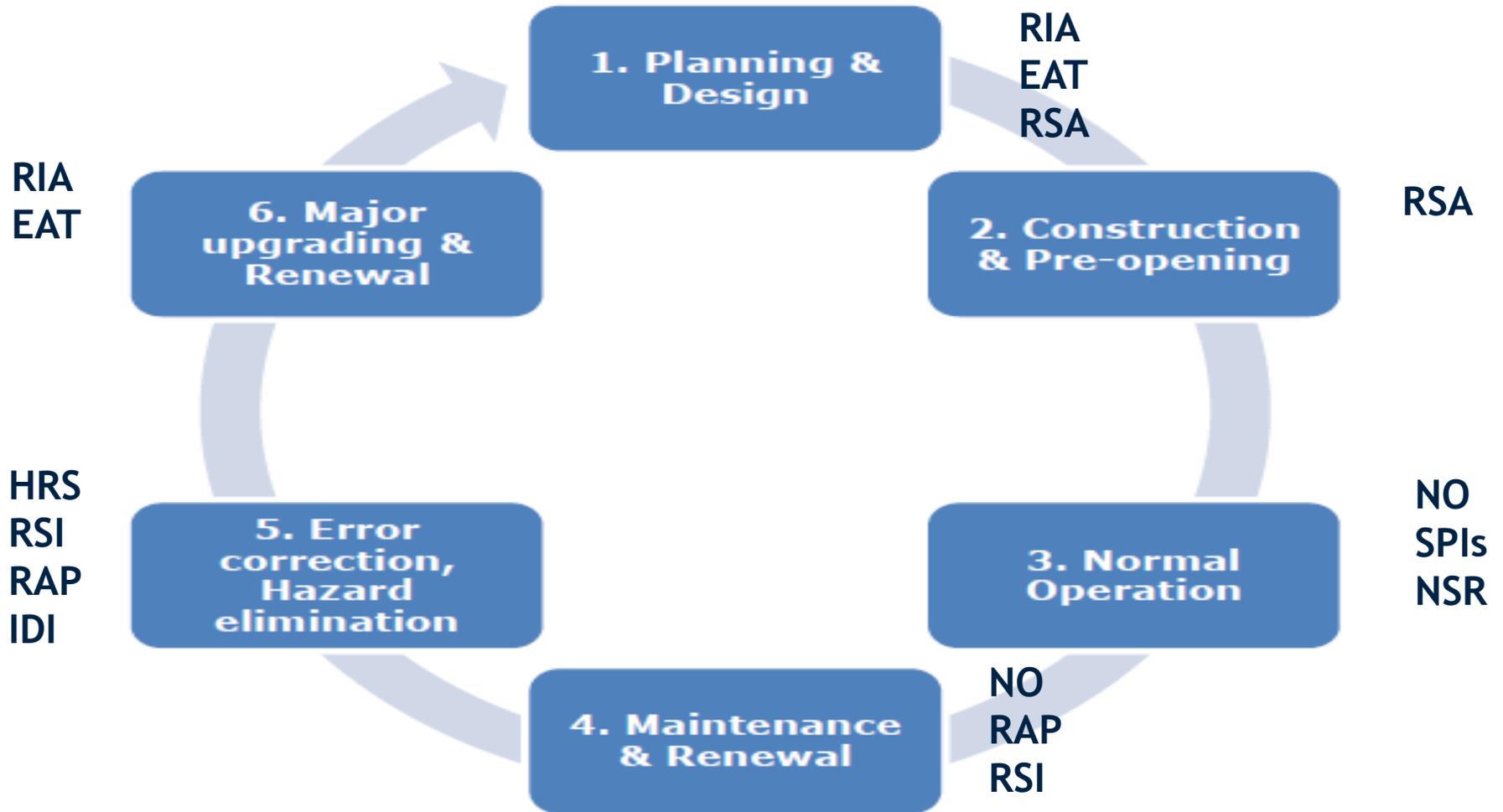
- Responsibility of Road Authority to provide safe roads & roadsides which accommodate inevitable human errors
- Focus on reducing road related fatalities & injuries rather than number of crashes
- Cost-effective safety oriented solutions during every stage of the road infrastructure life cycle

RISM - Procedures

A set of structured procedures related to safety improvements of a road network including:

- Road Safety Impact Assessment (RIA)
- Efficiency Assessment Tools (EAT)
- Road Safety Audit (RSA)
- Network Operation (NO)
- Road Infrastructure Safety Performance Indicators (SPIs)
- Network Safety Ranking (NSR)
- Road Assessment Programmes (RAPs)
- Road Safety Inspection (RSI)
- High Risk Sites (HRS)
- In-depth Investigation (IDI)

RISM & Project Life-Cycle



Source: OECD/ITF 2015

RISM & EU Requirements

European Union (Directive EC 2008/96) is focused on TEN-T network and requires:

- *Road Safety Impact Assessment*
- *Road Safety Audits for infrastructure projects*
- *Appointment and training of auditors*
- *Safety ranking of high risk crash cluster locations (potential Black Spots)*
- *Network Safety Ranking*
- *Safety Inspections*
- *Data Management*
- *Continuous improvement of Road Safety Management Practices*

RISM-Safety Treatment Identification Methods

Black Spot approach - limitations

- Some countries (jurisdictions) with low number of fatalities unable to reliably identify blackspots
- Often large fluctuations of killed and injured from one year to the next

Mass Actions & iRAP treatment - limitations

- May treat locations where no crash would happen

Recommendations

- A balanced approach = mix of Black Spot type and Mass Action road infrastructure remedial works
- Starting from Black Spot approach to achieve quick impact

RISM – *Success Factors*

- Assure high level political & strategic commitment to delivery of road safety with ambitious road safety targets
- Use road safety data for problem identification, road safety performance monitoring, and evaluation of infrastructure solutions
- Take into account road safety across complete project cycle
- Provide adequate level of funding for safety investment
- Assure flexible technical regulations & up to date standards
- Provide proper institutional management capacity to support the development & implementation of effective innovative safety interventions

Selected Specific Recommendations (I)

- Develop & maintain a sound road safety database with precise crash location;
- Use road infrastructure features to manage speed;
- Deliver professional training for staff (from senior management through to technical staff responsible for national, regional and local roads) in Safe System principles & various specific elements of road safety and how to apply them for improved road infrastructure safety;
- Undertake regular evaluation & research to quantify safety impacts of road infrastructure planning & design decisions;

Selected Specific Recommendations (II)

- Disseminate **practical road safety knowledge** and proven practices;
- Introduce modern and **user-friendly operational processes**;
- Make **RISM procedures compulsory** as part of the general management system and apply general system tools developed e.g. ISO390001;
- Implement **minimum safety standards for road infrastructure** based on Safe System principles;
- **Benchmark regularly** road infrastructure safety against best practices in other countries to inform reforms;

Conclusion from Review of CNAIR Safety Management System

Road infrastructure safety management system is only partly in place in CNAIR and improvement program needs to be instituted.

Road Infrastructure Safety Review

Recommendations for Romania

Result Orientation

- Continuous top level managerial commitment to road safety reflected in strategic vision and safety result oriented internal procedures and practices based on facts

Coordination

- Better coordination between public sector stakeholders in priority activities (crash data-base, audits, inspections, technical regulations, etc.)

Funding and resource allocation

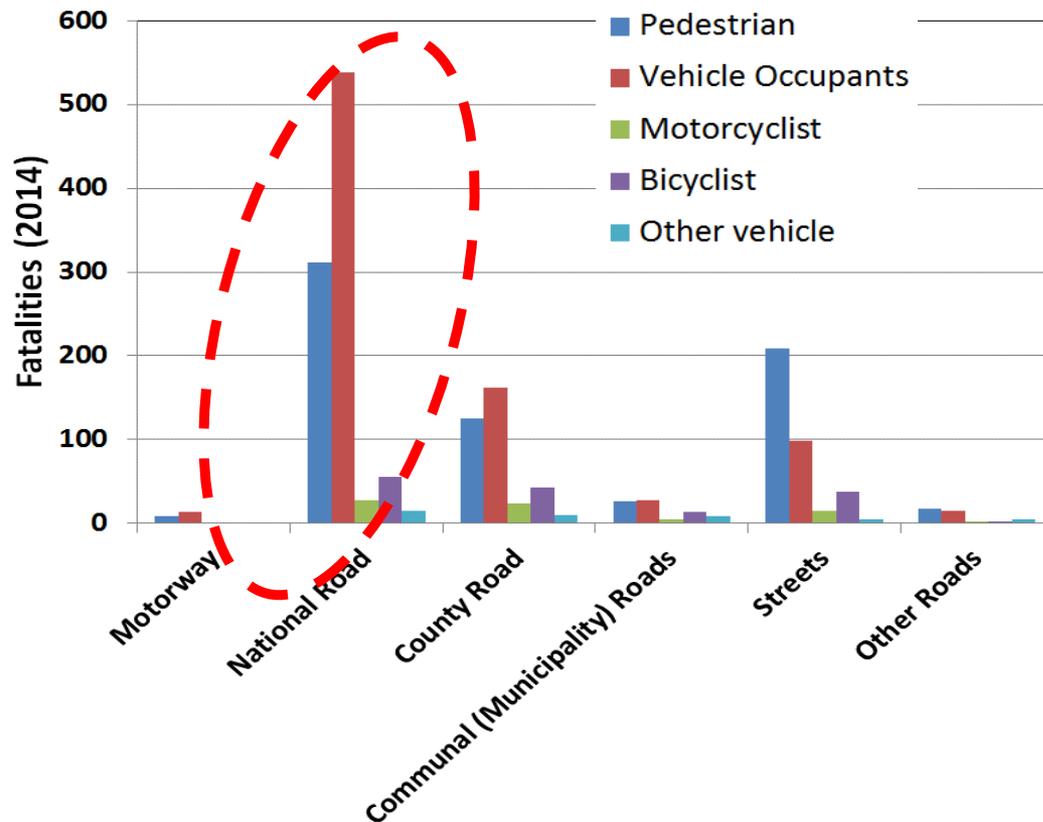
- Assuring stable at least medium-term (at least 3-5 years) funding for road infrastructure safety improvements (Black Spot Program)

Monitoring and evaluation

- Instituting road infrastructure safety indicators compliant with general targets and regular monitoring and evaluation of safety performance

Romania: 50% fatalities on national roads! CNAIR needs to act promptly!

Romania: fatalities by road type and responsibility for crash



**Black Spot
Treatment
Program
is urgently
needed!**

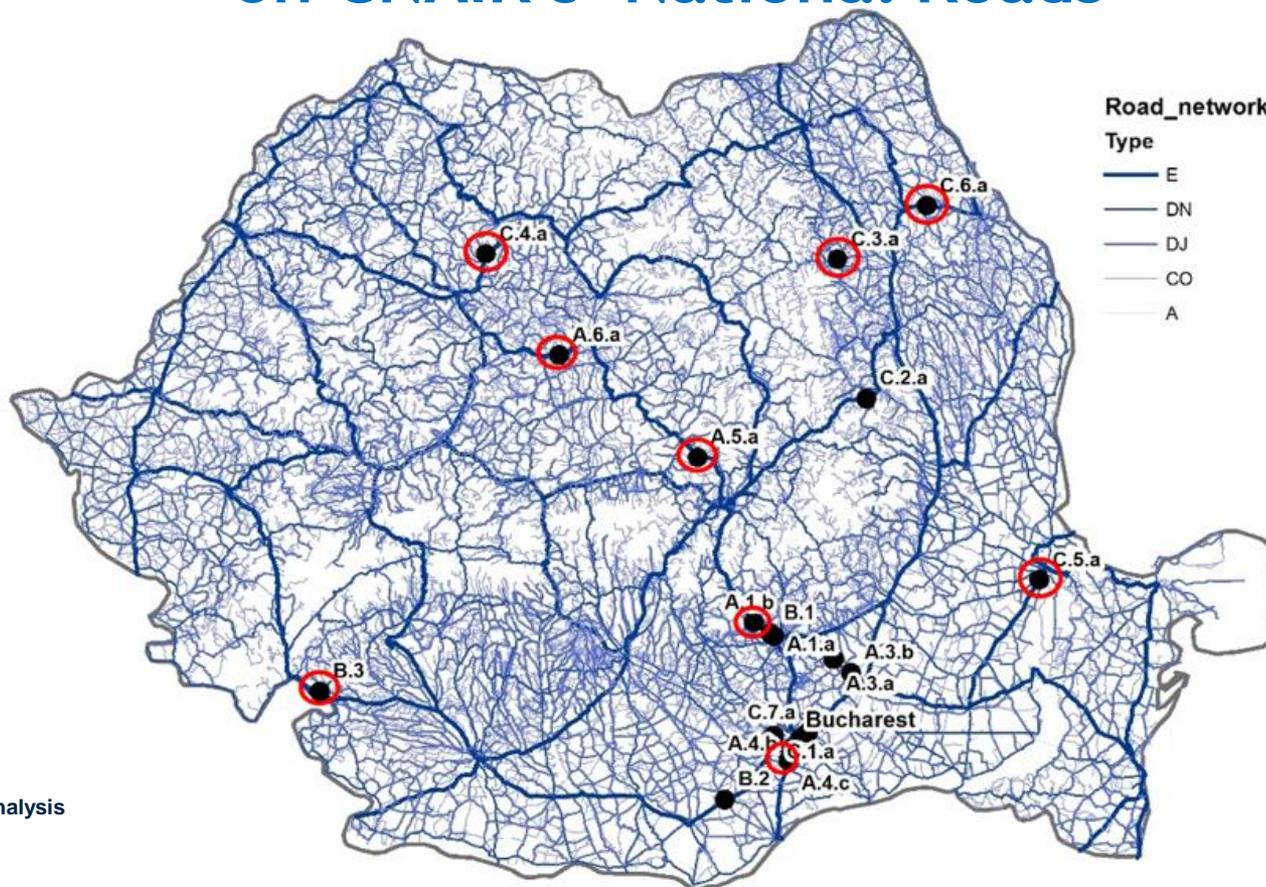
Source: GTMP 2016

Romania: “Quick wins” proposed for CNAIR

- Establish and implement Black Spot Treatment Program at national roads and corresponding road safety tools, procedures, standards;
- Design a catalogue of safety solutions to include all road safety standards for urban and interurban roads.
- Introduce improvements in technical legislation based on international and local practical experience
- Implement training program and regularly communicate results of Black Spot Program

Safety of Romania's Road Network

Main crash clusters (potential Black Spot) locations on CNAIR's National Roads



Source: WB analysis

Questions?



Together
we can save
lives.