SLAIN objectives

The European Commission CEF funded project SLAIN (Saving Lives Assessing and Improving TEN-T road Network safety) aims to extend the skills and knowledge base of partners in performing network-wide road assessment.

Duration: 2 Years, 2019-2021
Budget: 1,870,570 euro

The main areas to be covered within the SLAIN project are:

- The demonstration of a methodology of network-wide assessment.
- The assessment of the Safety Performance Management of the TEN-T core road network and, if possible, beyond, in four European countries: Croatia, Italy, Greece and Spain where road surveys (10,000 km of mapping) will be performed.
- Proposals for section-specific, economically viable crash countermeasures designed to raise infrastructure quality to achieve significant reductions in severe injuries and deaths.
- Preparation of the readiness of Europe’s physical infrastructure for automation
SLAIN Project Activities

Activity 1  Risk Mapping Croatia, Greece, Italy, Spain (and Catalonia)
Activity 2  Star Rating Croatia, Greece, Italy, Spain (and Catalonia)
Activity 3  Technical justification for network-wide road assessment
Activity 4  “How-to guide” for network wide road assessment
Activity 5  Global analysis of the safety of the TEN-T network
Activity 6  Case studies using the application of network-wide road assessment
Activity 7  Preparing the physical infrastructure for automation
What is the Network Wide Road Assessment

Road Safety Assessment Methods

- Reactive
  - Numerical
    - Black spot Network screening
    - RAP Crash Risk Mapping
  - Statistical
    - Poisson
    - Bayes
    - Quality control

- Proactive
  - Existing roads
    - RAP Star Rating and Fatality Estimation
    - Road Safety Inspection
    - PRACT Accident Prediction Model
  - New roads
    - Road Safety Audit
    - RAP Star Rating, New Roads and Designs
iRAP and other RS Methodologies

• On higher order road networks (such as the TEN-T), a proactive road assessment approach is recommended in accordance with other international guidance every 5 years. These relatively short networks carry such high volumes of traffic that this thorough approach along with an annual blackspot programme, is commensurate with the level of investment necessary.

• On Lower order networks:
  • As initial step it is important to perform an iRAP Crash Risk Map of the network, where the higher risk or higher potential return routes will be identified.
  • The second step, according to the available resources, focuses on the most critical routes. The route assessment may be performed through iRAP Star Rating which provides detailed information about risk along the routes, an estimation of where fatal and serious injuries are likely to occur in the future and an initial Safer Roads Investment Plan.
  • In the third step, development of a user defined investment plan (UDIP) is required, and this may be focused where the greatest concentration of fatal and serious injuries are expected, where risk is high and where countermeasures show initial good returns in the iRAP model.
  • Since this step is the most resource consuming, it is of the decision makers’ benefit to assign it only where the interventions are likely to offer the highest Benefit to Cost Ratio.
SLAIN supporting RISM Directive
SLAIN supporting RISM Directive
SLAIN Policy Recommendations

- Gap analysis
- EC Road Safety Strategy
- Safer road infrastructure strategy and action plan
- UN Global Road Safety Performance Targets

Programme for assessing road infrastructure safety:
- Stakeholder engagement
- Road infrastructure safety KPIs
- Align road design standards UN-GRSPT
- Capacity building
- Road design assessments
- Routine proactive safety assessments
- Road audits
- Celebration of safer road success
- Identification and Feasibility

EU Road Safety Goals

Planning and Design

Financing

Construction

Operation

Monitor

Maintain, Upgrade and Innovate
Level 1: Carry out gap analysis, that incorporates:

- Holding a National Safer Road Infrastructure workshop to review the current systems and capacity to deliver safer road infrastructure
- Defining the key responsibilities and accountabilities for Road Infrastructure Management
- Review of polices standards, guidelines, and funding mechanisms to establish how safety performance is built in
Level 2: Development of safer road infrastructure strategy and action plan

• The safer road infrastructure strategy and action plan would need to follow the

  • EC Road Safety Strategy policy
  • 2nd Decade of Action for Road Safety 2021-2030
  • UN Global Road Safety Performance Targets
Level 3: Establish a stepwise programme for assessing road infrastructure

a. A road safety partnership that involves the key stakeholders: road authority/operators, civil society, national road safety agency, police, and research organisations.
b. Routine road safety assessments that target the highest risk roads that are integrated with wider asset management inspections and utilise a common data structure is used to encourage compatibility.
c. Monitoring using crash data and proactive safety assessments which take into consideration all road users.
d. Reporting of road safety infrastructure KPIs.
e. Capacity building/training to ensure the road safety community stays abreast of latest developments and the Safe System approach is embedded.
f. Encourage designing roads right the first time through aligning road design standards with the UN Global Road Safety Targets, and the integration of road design assessments and Road Safety Audits.
g. The definition of network appropriate intervention levels to prioritise investment based on proactive Fatal and Serious Injury estimations.
h. A network-wide road safety assessment methodology that visually represents the needs of every road user type in regard of the local context. The methodology needs to be transparent and based on published scientific evidence and harnesses a framework that allows for innovation and evolution to account for developments in both road infrastructure and vehicle technology.
i. Utilise investment plans to guide financing so that the true value of life is reflected in road maintenance, road upgrades, and major infrastructure improvements.
j. Celebrate the successes in delivering safer roads.
### 20 National Programmes

**in close cooperation with road administrations and operators**

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<tr>
<th>Country / State</th>
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Road Infrastructure Requirements for Connected and Autonomous Vehicles (CAV) - Results from the CEF SLAIN project

About EuroRAP

• International Not For profit Association (AISBL) “A Europe free of high-risk roads”

28 National Programmes
Gate-Keeper of Protocols in Europe
National Programme governance (Authority, National RAP, Private Motorway, Uni)

Training & Accreditation
Authorities and private-sector partners in RAP assessment

Research & Innovation
ITS/CAD Star Rating
CityRAP/CycleRAP/SR4Schools aRAP

International Cooperation
Exchanges of best practices
EU RAP metrics feed UN protocols

Advocacy
Involved in EC Platforms (e.g. CCAM, RISM)
Position Papers

Deployment

Road Infrastructure Requirements for Connected and Autonomous Vehicles (CAV) - Results from the CEF SLAIN project

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Thank you for your participation today!