



SAFER LEVEL CROSSING BY INTEGRATING AND  
OPTIMIZING ROAD-RAIL INFRASTRUCTURE  
MANAGEMENT AND DESIGN

# SAFER-LC Mid-Term Conference, Madrid, 10 October 2018

## Conclusions

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This project has received funding from the European Union's  
Horizon 2020 research and innovation programme under  
grant agreement No 723205



# Next Steps


- ▲ Pilot Tests will be executed from now to April 2019
- ▲ Evaluation of the measures from technical and human factor point view will then be performed
- ▲ Development of business models
- ▲ The toolbox will be designed and developed



# SAFER-LC Toolbox




## ▲ RESTRAIL Example



**RESTRAIL  
TOOLBOX**

RAILWAY SUICIDES & TRESPASSING ACCIDENTS:  
HOW TO PREVENT THE INCIDENTS AND MITIGATE THE  
CONSEQUENCES?

Visit the RESTRAIL project website




This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement Nr 285153.

General guidance   Full list of measures   Glossary   References   FAQ   Contact us

Analyse the problem	Explore measures by			
Action plan for	Type	Target problem	Effect mechanism	Study results
<div style="background-color: #c00; color: white; padding: 5px; margin-bottom: 5px;">Prevention of incidents</div> <div style="background-color: #c00; color: white; padding: 5px;">Mitigation of consequences</div>	<div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">Organisational &amp; procedural</div> <div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">Physical &amp; technological</div> <div style="background-color: #ccc; padding: 5px;">Public awareness &amp; educational</div>	<div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">Suicide</div> <div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">Trespass</div> <div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">Suicide &amp; Trespass</div> <div style="background-color: #ccc; padding: 5px;">Mitigation</div>	<div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">Improve practice &amp; processes</div> <div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">Influence decision</div> <div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">Deter access</div> <div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">Influence behaviour</div> <div style="background-color: #ccc; padding: 5px;">Reduce consequences</div>	<div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">No studies</div> <div style="background-color: #ccc; padding: 5px; margin-bottom: 5px;">Yes (general)</div> <div style="background-color: #ccc; padding: 5px;">Yes (RESTRAIL)</div>

The RESTRAIL Toolbox is a problem-solving guide for implementation of measures to prevent railway suicides and trespassing accidents and to mitigate the post incident consequences. It is the main output of the RESTRAIL research project and it aims to be a helpful, intuitive and user-friendly tool. It summarises practical information collected and produced during the project (synthesis, guidelines, best practice, lessons learned and empirical evidence for effectiveness). The content also (...)

[Read more](#)



**Welcome to the RESTRAIL Toolbox !**  
– a free online tool that helps save lives along the railways

Links

+ European Commission: CORDIS: FP7

Latest updates

2018-09-20 Nets at bridges

Tweets sur #restrail

SAFER-LC Mid-term Conference, Madrid, 10 October 2018

# SAFER-LC Toolbox



## ▲ RESTRAIL Example

<http://restrail.eu/toolbox/spip.php?article114#collapse5>

### 11.2 Detection systems combined with sound warnings

**Description**  
What does this measure refer to and what is its objective?

This measure refers to other detection devices which use various types of sensors to detect unauthorised persons in specific areas. Motion detection sensors, RADAR, LIDAR or glass fibre technologies can be used detect pedestrian movement and trigger an automatic sound warning (alarm noise or spoken message) by loudspeakers. The aim is influencing the person to modify their behaviour and move to a place of safety.

**Recommendations**  
Best practice and lessons learned

**Warning points**  
Expected difficulties and issues you should pay attention to

**Observations**  
Other points that you should not forget

**Study results**  
Data or other evidence supporting the measure's effectiveness

#### Gallery

Type of measure: **Physical and technological**

Target problem: **Suicide** **Trespass**

Effect mechanism: **Influence behaviour in track area**

Evaluation studies: **Yes**

Select another measure in this family ▾

Select another family ▾

# Events planned

Workshop 3 on the toolbox evaluation	December 2019	Paris
Final conference and workshop 4 on the toolbox training	April 2020	Paris



# More information

- ▲ Public deliverables available at <http://safer-lc.eu/deliverables-publications-5>
- ▲ Presentations will be soon available at <http://safer-lc.eu/events>
- ▲ Twitter : <https://twitter.com/SAFERLC>; TAG : [@SAFERLC](https://twitter.com/SAFERLC)

