MANAGEMENT OF RAILWAY SAFETY PERFORMANCE IN REPUBLIC OF SLOVENIA

ILCAD CONFERENCE
07.06.2018
ZAGREB, CROATIA

JOSIP ROTAR
KEY STAKEHOLDERS

- Ministry of Infrastructure of the Republic of Slovenia
- Regulatory Body of the Republic of Slovenia
- European union Agency for Railways
- National Safety Authority (AŽP)
- National investigation Body
KEY STAKEHOLDERS

• Infrastructure Manager
  SŽ – Infrastruktura

• Railway Undertakings (RU)
  SŽ – Potniški promet
  SŽ – Tovorni promet
  Rail Cargo Carrier
  Adria Transport
  Luka Koper
LEGAL BASIS

- Regulation (EU) 2016/796
  On the European Union Agency for Railways

- Directive (EU) 2016/797
  On the interoperability of the rail system within the European Union

- Directive (EU) 2004/49
  Railway Safety Directive

- Directive (EU) 2016/798
  On Railway Safety
LEGAL BASIS

- Regulation (EU) 1158/2010
  CSM on Conformity assessment
  (safety certificates - RUs)

- Regulation (EU) 1077/2010
  CSM for Supervision
  (after issuing a safety certificate / safety authorisation)

- Regulation (EU) 1169/2010
  CSM on Conformity assessment
  (safety authorisation - IMs)
LEGAL BASIS

- Railway Traffic Safety Act
  Zakon o varnosti v železniškem prometu (ZVZelP)

- Railway Transport Act
  Zakon o železniškem prometu (ZZelP)
ORGANISATIONAL STRUCTURE OF AŽP

- Directorate
- Interoperability Division
- Safety Division
- Division for Licences, Certificates and Administrative Affairs
- Division for Legal, Financial, Personnel and General Affairs
TASKS

- Safety authority
- Certification body
- Licence body
- Conformity assessment body
- Assessment body on risk assessment
ADMINISTRATIVE ACTS

• Safety certificates (RUs)
  Part A / Part B
  Granting / renewal
  Audits and supervisions

• Maintenance entity certificate

• Authorization of education entities

• Safety authorization (IMs)
  Granting / renewal
  Audits and supervisions

• Train driver licences

• Authorization of workshops for railway vehicles maintenance
RAILWAY SAFETY IN SLOVENIA

- Number of significant accidents is decreasing
- Level crossings are main concern
- National safety strategy still not confirmed
RAILWAY SAFETY IN SLOVENIA
**RAILWAY SAFETY IN SLOVENIA**

Basic data on railway infrastructure

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of lines</td>
<td>1207 km</td>
</tr>
<tr>
<td>Total number of train kilometers</td>
<td>21 million train km</td>
</tr>
<tr>
<td>Total number of level crossings (active and passive)</td>
<td>756</td>
</tr>
<tr>
<td>Active level crossings</td>
<td>322</td>
</tr>
<tr>
<td>Passive level crossings</td>
<td>434</td>
</tr>
</tbody>
</table>
RAILWAY SAFETY IN SLOVENIA

Significant accidents

![Graph showing significant accidents from 2011 to 2016]

- Collisions
- Derailment
- Level crossing accidents
- Accident to persons involving rolling stock in motion
- Fire in rolling stock
- Other
RAILWAY SAFETY IN SLOVENIA

Victims

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
<th>Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>22</td>
<td>17</td>
</tr>
<tr>
<td>2007</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>2008</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>2009</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>2010</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>2011</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>2012</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2013</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>2014</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2015</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2016</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>
RAILWAY SAFETY IN SLOVENIA

Risk to passengers

- 25.3
- 25.3
- 25.3
- 25.3
- 25.3
- 25.3


FWSI/train km
NIRV
RAILWAY SAFETY IN SLOVENIA

Risk to employees

- FWSI/train km
- NRV

- 2011: 0
- 2012: 0
- 2013: 52.8
- 2014: 0
- 2015: 0
- 2016: 0
RAILWAY SAFETY IN SLOVENIA

Risk to LC users

<table>
<thead>
<tr>
<th>Year</th>
<th>FWSI/train km</th>
<th>NRV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>78.4</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>259</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>195</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>285</td>
<td></td>
</tr>
</tbody>
</table>
RAILWAY SAFETY IN SLOVENIA

Risk to unauthorized persons

<table>
<thead>
<tr>
<th>Year</th>
<th>FWSI/train km</th>
<th>NRV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>162</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>0</td>
<td></td>
</tr>
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<td>2014</td>
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</tr>
<tr>
<td>2015</td>
<td>5.28</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>0</td>
<td></td>
</tr>
</tbody>
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RAILWAY SAFETY IN SLOVENIA

Risk to others

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FWSI/train km</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NRV</td>
<td>14.5</td>
<td>14.5</td>
<td>14.5</td>
<td>14.5</td>
<td>14.5</td>
<td>14.5</td>
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RAILWAY SAFETY IN SLOVENIA

Societal risks

<table>
<thead>
<tr>
<th>Year</th>
<th>FWSI/train km</th>
<th>NTV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>290</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>317</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>201</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>121</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>285</td>
<td></td>
</tr>
</tbody>
</table>

FWSI/train km

NTV
SAFETY MANAGEMENT

SMS is the tool for managing safety which contributes to the effective design, planning, delivery and control of railway operation, as part of a company’s business.
Future challenges

- Supervision plan
- Safety policy
- Proactive collaboration with stakeholders
- Reduction of accidents on the level crossings
Thank you for attention

More information:
www.azp.si
gp.azp@azp.si

Data sources:
• Annual Safety Report – NSA Slovenia
• SŽ Infrastruktura
• SURS
• ERA

Josip Rotar,
Senior advisor at Safety division