ISO 39001 ROAD TRAFFIC SAFETY (RTS) MANAGEMENT SYSTEMS - EXPERIENCES FROM EARLY ADOPTERS IN THE SWEDISH TRANSPORT INDUSTRY

Mårten JOHANSSON,
Director of Technical Affairs and Lead Auditor at the Swedish Association of Road Transport Companies, Stockholm
Swedish Association of Road Transport Companies involve about

- 8,000 companies.
- 80% of road transport companies in Sweden.
- 60,000 employees.
- 30,000 motor vehicles.
## Fatalities in Road Traffic Accidents in Sweden

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatalities (2010, 2011 excl suicides)</td>
<td>471</td>
<td>397</td>
<td>358</td>
<td>266</td>
<td>319</td>
</tr>
<tr>
<td>By HGV</td>
<td>92</td>
<td>74</td>
<td>50</td>
<td>53</td>
<td>63</td>
</tr>
<tr>
<td>In HGV</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Fatalities with HGV</td>
<td>98</td>
<td>78</td>
<td>52</td>
<td>57</td>
<td>66</td>
</tr>
<tr>
<td>HGV involved</td>
<td>21%</td>
<td>20%</td>
<td>15%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>In oncoming traffic</td>
<td>52</td>
<td>36</td>
<td>28</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>Fatalities in oncoming traffic</td>
<td>53%</td>
<td>46%</td>
<td>54%</td>
<td>46%</td>
<td>41%</td>
</tr>
<tr>
<td>Fatalities per 100,000 inhabitants</td>
<td>4.7</td>
<td></td>
<td></td>
<td>2.8</td>
<td>3.4</td>
</tr>
<tr>
<td>Suicides (Trafikanalys 2012:4)</td>
<td></td>
<td></td>
<td></td>
<td>17</td>
<td>23</td>
</tr>
</tbody>
</table>
Excerpts from the EU WHITE PAPER

- Curbing mobility is not an option.
- Freight shipments over short and medium distances will remain on trucks.
- By 2050, move close to zero fatalities in road transport. In line with this goal, the EU aims at halving road casualties by 2020. Make sure that the EU is a world leader in safety and security of transport in all modes of transport.
- Road fatalities in the EU was almost halved in the past decade. 34,500 people were killed on EU roads in 2009.
- Annex: List of initiatives, Towards a ‘zero-vision’ on road safety.
Auditing of Management Systems
Certificates Issued by the
Swedish Association of Road Transport Companies

212 ISO 14001:2004 Environment
170 ISO 9001:2008 Quality
141 SA-RTS standard based on principles in ISO 14001:2004
49 AFS 2001:1 (OHSAS 18001)

141 RTS certificates involve about
• 1,137 companies with
• 7,763 employees and
• 5,443 motor vehicles

From 2012 audited according to ISO (DIS) 39001
Average Number of Years with Certified RTS Management System in Swedish RTS Certified Companies

6 years on average

<table>
<thead>
<tr>
<th>&lt;1</th>
<th>1</th>
<th>2-5</th>
<th>6-10</th>
<th>11&lt;</th>
<th>don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1%</td>
<td>5,4%</td>
<td>40,9%</td>
<td>44,1%</td>
<td>6,5%</td>
<td>2,2%</td>
</tr>
</tbody>
</table>
Number of Employees in RTS Certified Road Transport Companies

7,763 employees

- 1-10: 14%
- 11-20: 15.1%
- 21-41: 24.7%
- 41-100: 33.3%
- 101-200: 9.7%
- 201-300: 0%
- 301-400: 0%
- 401+: 3.2%
Number of Motor Vehicles in RTS Certified Road Transport Companies

5,443 motor vehicles
### RTS Audited Management Systems in 141 Swedish Transport Companies

141 RTS certificates involves 1,137 companies

<table>
<thead>
<tr>
<th>Standard</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 9001</td>
<td>92.5%</td>
</tr>
<tr>
<td>ISO 14001</td>
<td>100%</td>
</tr>
<tr>
<td>RTS based on ISO</td>
<td>96.8%</td>
</tr>
<tr>
<td>AFS 2001:1</td>
<td>34.4%</td>
</tr>
<tr>
<td>OHSAS 18001</td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**
- Green: RTS Audited Management Systems
- Red: 100%
- Yellow: 96.8%
- Light Green: 34.4%
The largest main activities for certified companies in Sweden

- Local distribution/depot-based routes.
- Long-distance routes.
- Construction and civil engineering transport.
- Agricultural transport.
- Temperature-controlled transports.
Examples of problems in the companies' work with road safety are:

- To set measurable targets and to evaluate the outcome of actions.
- To obey speed limits and use the seatbelt.
- To reach the target of zero accidents and incidents.
- To have time enough to take all measures.
Use a seat belt and drive at the correct speed.

Have respect for everyone on the road.

Increasing your speed will not save you much time, so keep to the speed limit.

Implement safety policies among staff.

Clear requirements.

Give feedback.

Set a good example to others.
Fatalities and Serious Injuries Per Year with 141 Swedish RTS Certified Companies involved

3,6 Fatalities.

7,5 serious injuries.
Number of survey responses per RTS factor

- 35 comply with speed limits.
- 20 use of safety belt.
- 17 minimise risks of accidents.
- 12 comply with driving and rest periods.
- 10 alcolock device, alcohol and drugs.
- 9 comply with regulations.
The fulfilment of objectives at companies holding SA-RTS certification is high or very high:
New features in the ISO 39001 standard as compared with management systems for other areas include the following

- A new high level structure.
- Particular emphasis in road traffic safety.
- Senior management have responsibility to set a good example.
- Road safety factors that everyone must pay attention to are pointed out.
- The organization shall establish, implement and maintain a procedure(s) to record, investigate and analyze those road traffic crashes and other incidents in which they are involved.
<table>
<thead>
<tr>
<th>R=</th>
<th>LC</th>
</tr>
</thead>
<tbody>
<tr>
<td>R=</td>
<td>risk as per mil (0-1,000)</td>
</tr>
<tr>
<td>L=</td>
<td>Likelihood as a percentage of a consequence occurring (0-100)</td>
</tr>
<tr>
<td>C=</td>
<td>1 = incident with a risk of injury</td>
</tr>
<tr>
<td></td>
<td>2 = very little injury</td>
</tr>
<tr>
<td></td>
<td>3 = slight injury</td>
</tr>
<tr>
<td></td>
<td>4 = injury</td>
</tr>
<tr>
<td></td>
<td>5 = injuries</td>
</tr>
<tr>
<td></td>
<td>6 = substantial injuries</td>
</tr>
<tr>
<td></td>
<td>7 = very substantial injuries</td>
</tr>
<tr>
<td></td>
<td>8 = serious injuries</td>
</tr>
<tr>
<td></td>
<td>9 = very serious injuries</td>
</tr>
<tr>
<td></td>
<td>10 = death</td>
</tr>
</tbody>
</table>
### Examples of RTS Factors, Risks and Targets

<table>
<thead>
<tr>
<th>RTS factors</th>
<th>Risk R (‰)</th>
<th>L (%)</th>
<th>C</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Legal speed</td>
<td>40</td>
<td>4</td>
<td>10</td>
<td>&lt;83 km/h</td>
</tr>
<tr>
<td>B Use of safety belt</td>
<td>30</td>
<td>3</td>
<td>10</td>
<td>&gt; 85 per cent</td>
</tr>
<tr>
<td>D No drugs</td>
<td>20</td>
<td>2</td>
<td>10</td>
<td>Alcolock</td>
</tr>
<tr>
<td>E Handsfree</td>
<td>200</td>
<td>25</td>
<td>8</td>
<td>Bluetooth</td>
</tr>
<tr>
<td>F Oncoming traffic</td>
<td>300</td>
<td>30</td>
<td>10</td>
<td>Lobbying</td>
</tr>
<tr>
<td>G Road surface texture, friction</td>
<td>270</td>
<td>30</td>
<td>9</td>
<td>Lobbying</td>
</tr>
</tbody>
</table>
Guiding principles to prioritising RTS Targets and Action Plans

- minimising high risk,
- minimising numbers of risks,
- minimising serious consequences, and
- adhering to statutory requirements and customer requirements.
Systematic road safety work contributes to the company's profitability.

As far as the companies' profitability is concerned, approximately 40 per cent state in survey responses that it is good or very good and 72 per cent states that SA-RTS contribute to the company's profitability at a high or the highest possible level of fulfilment.

The fulfilment of objectives at companies holding SA-RTS certification is high or very high.
To analyse relevant RTS actions in transport companies, risk assessment needs to be applied for long periods of time e.g. 10-20 years or more, and applied to many drivers or many companies. This long-term focus makes it easy to see what significant impact on RTS all the individual small steps can cumulatively have.
Conclusion 3: RTS factors

- In the case of drivers and transport companies working with RTS, the following examples of important factors should be in focus: speeding, seat belt use, load securing, to see and be seen, fitness of drivers especially considering fatigue, distraction, alcohol and drugs.
Conclusion 4: RTS Factors and Risks to be Addressed by Road Authorities and Regulators

- Separation of traffic, speed limits – especially curve speed management, design of road cross section and superelevation in curves, water drainage gradient in transition curves, maintenance, surface texture and friction, the design of crash barriers and their end terminals, entrances and exits, side areas / safety zones and intersection design, etc.
Vehicle drivers are too often singled out as the main culprits of road deaths and serious injuries because of speeding and not using safety belts. But there are several other stakeholders that can contribute to improve RTS. RTS is achieved by several parties in collaboration: the driver, carrier, customer, vehicle manufacturers and infrastructure providers.

The ISO 39001 will be a good standard and guidance on this process.
Conclusion 6: RTS companies advice to other road users to improve road safety

- Use a seat belt and drive at the correct speed.
- Have respect for everyone on the road.
- Increasing your speed will not save you much time, so keep to the speed limit.
- Set a good example to others.
References