



SISEKAITSEAKADEEMIA
ESTONIAN ACADEMY OF SECURITY SCIENCES

What happens if traffic accidents take place in Estonia?

Vision Zero for Sustainable Road Safety in the Baltic Sea
Region

Tallinn 04.12.2019

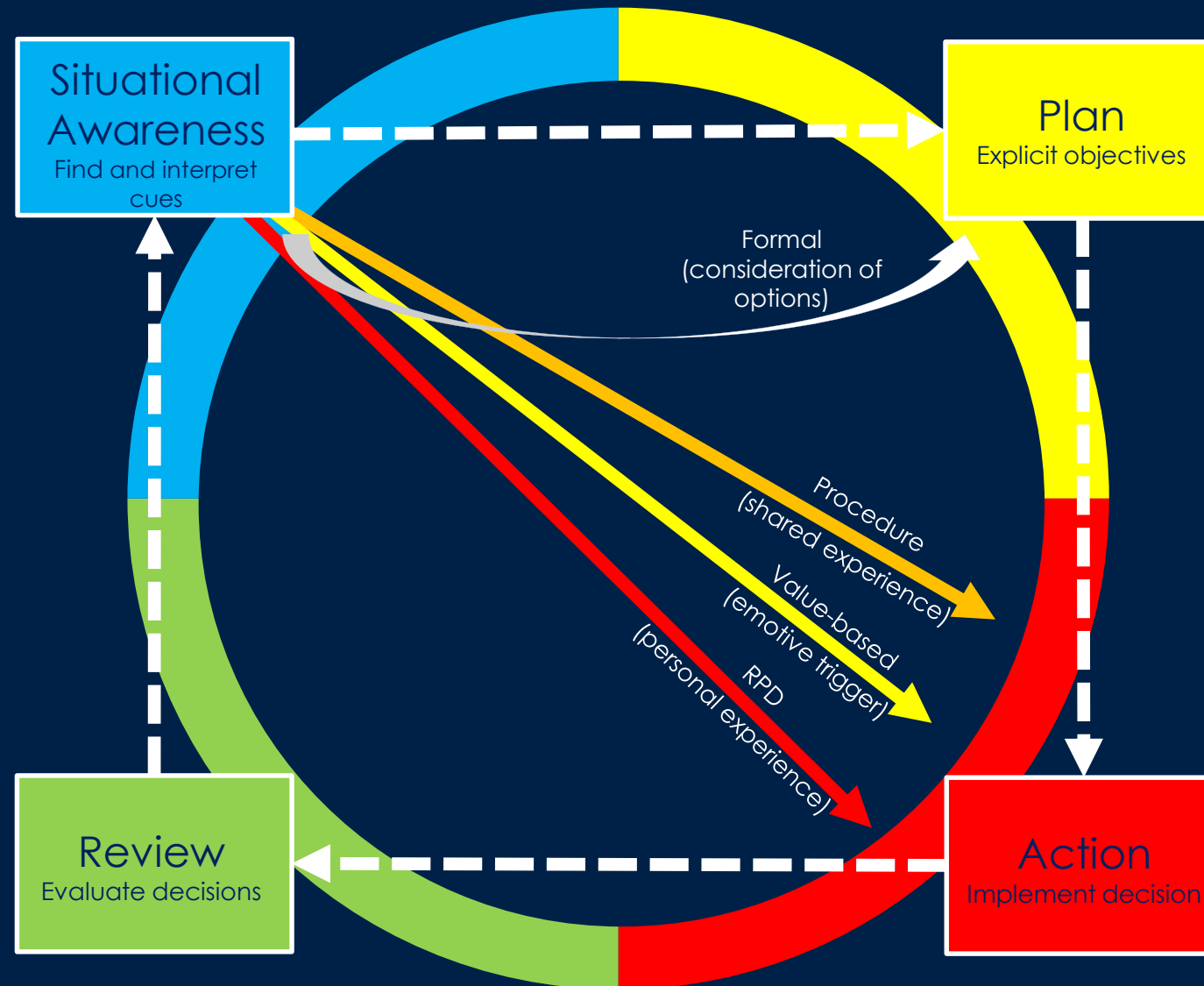
AIM of the PRESENTATION

To give overview of the virtual simulation based training and assessment methodology for first responders in traffic accidents.

Situational awareness (Dalinger, et al 2016)

- “Collecting information from the environment,
- compilation of this information to obtain a clear understanding of the current situation, and
- using this understanding to forecast future events.”

SPAR Decision Model



Adapted from Launder
& Perry 2014

THE CASE

- Years 2016-2018
- Training scenario and then assessment scenario
- Two assessors for one incident commander
- 67 assessments, 3 different scenarios

Training scenario



Read more: Polikarpus, S.; Bøhm, M. and Ley, T. “Training Incident Commander’s Situational Awareness—A Discussion of How Simulation Software Facilitate Learning,” in *Digital Turn in Schools—Research, Policy, Practice*, Eds: Väljataga, T. and Laanpere, M.; Singapore: Springer, Singapore, 2019, pp. 219–234.

or click [here](#)

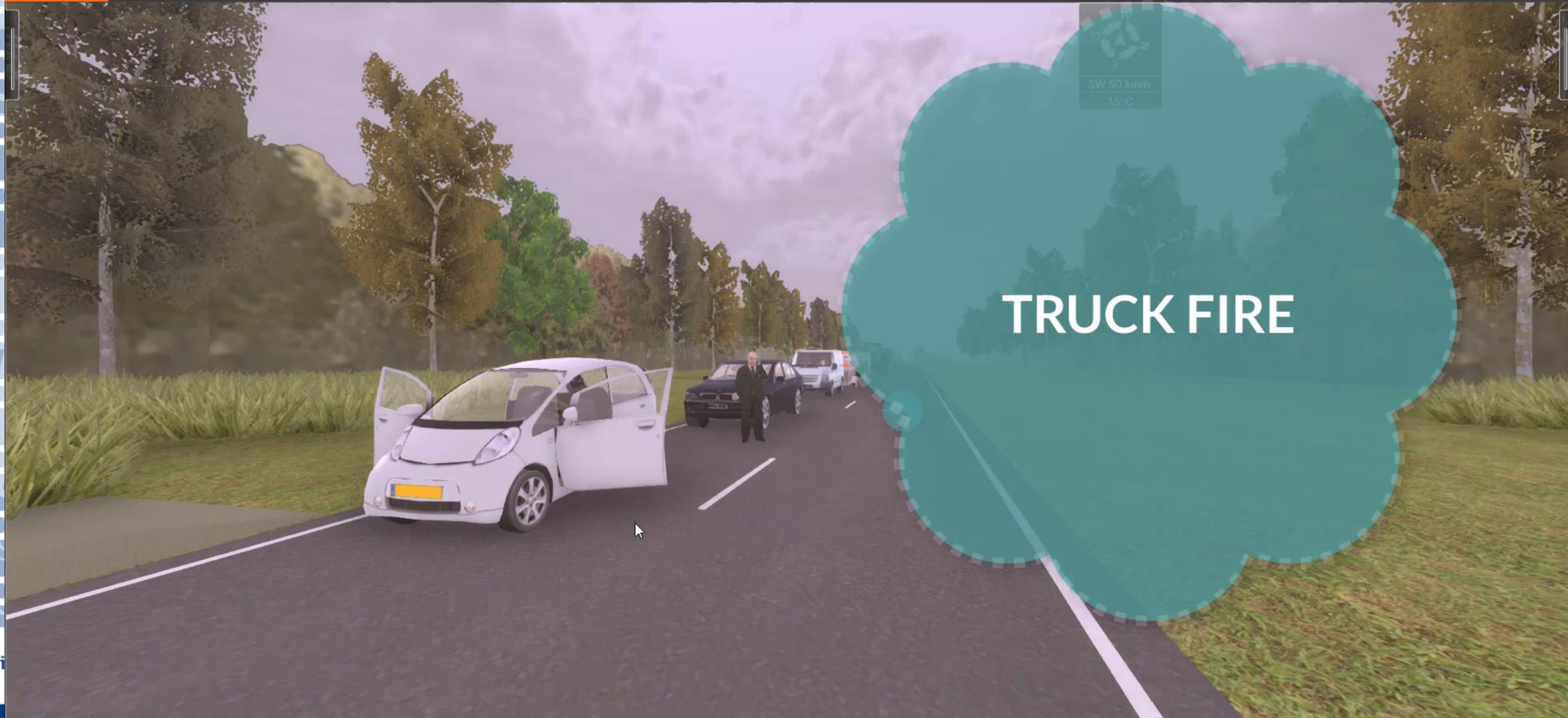
Assessment scenario: Truck fire

XVR OS 2019 - SP1

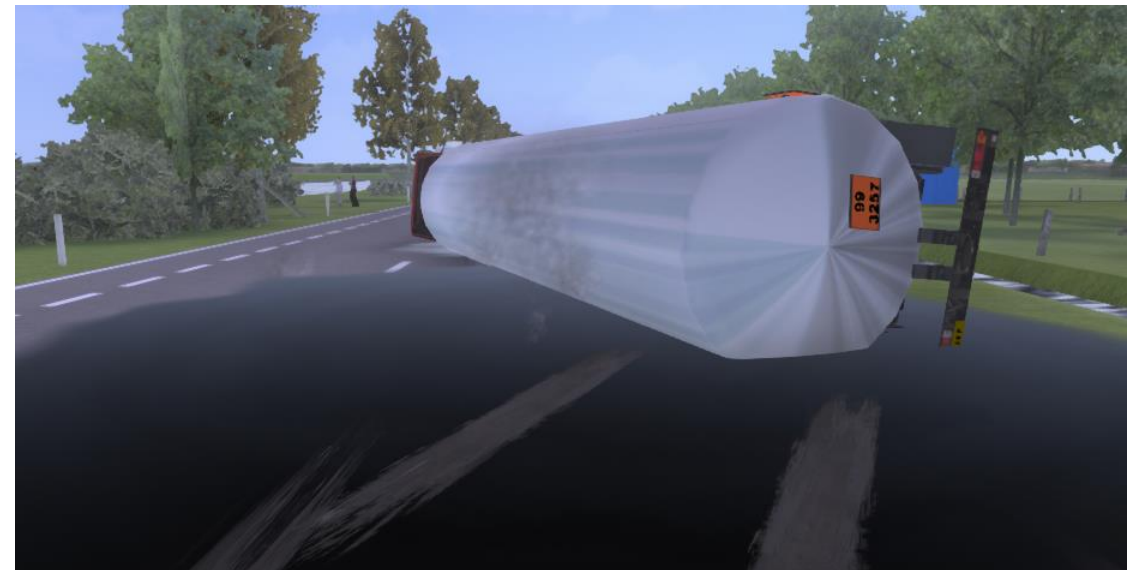
Build

00:00:00

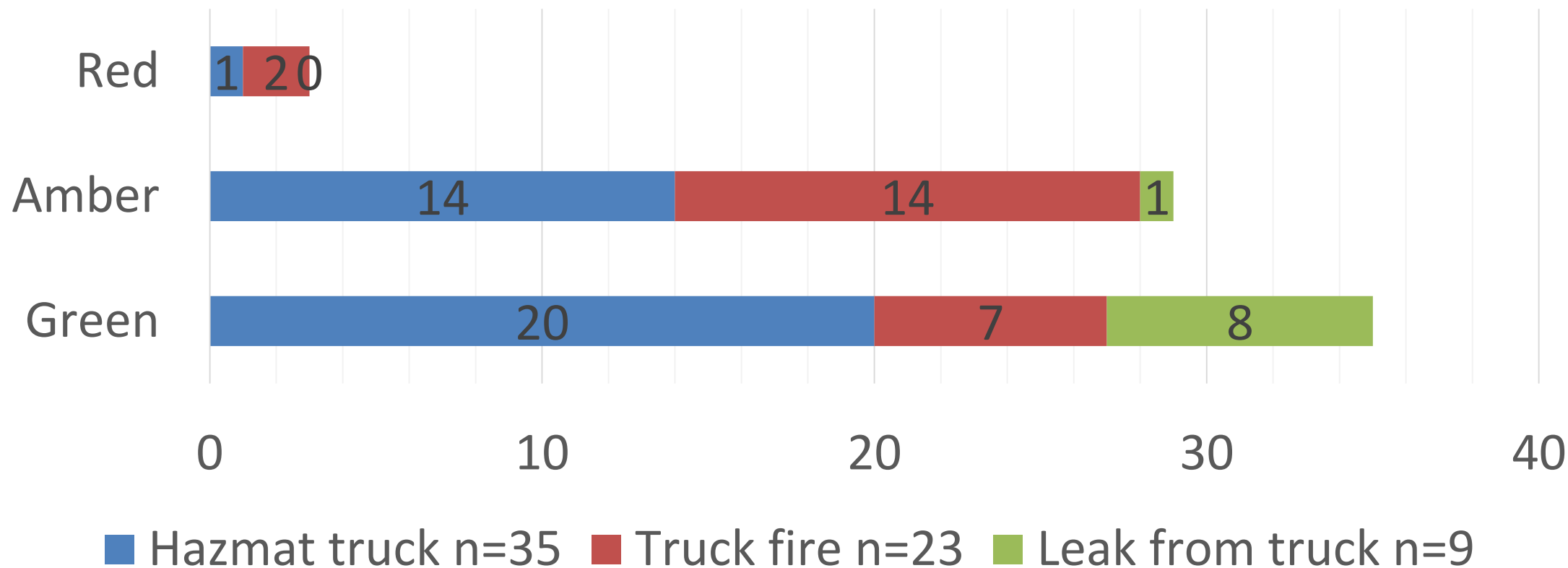
TRUCK FIRE



Assessment scenario: Hazmat truck

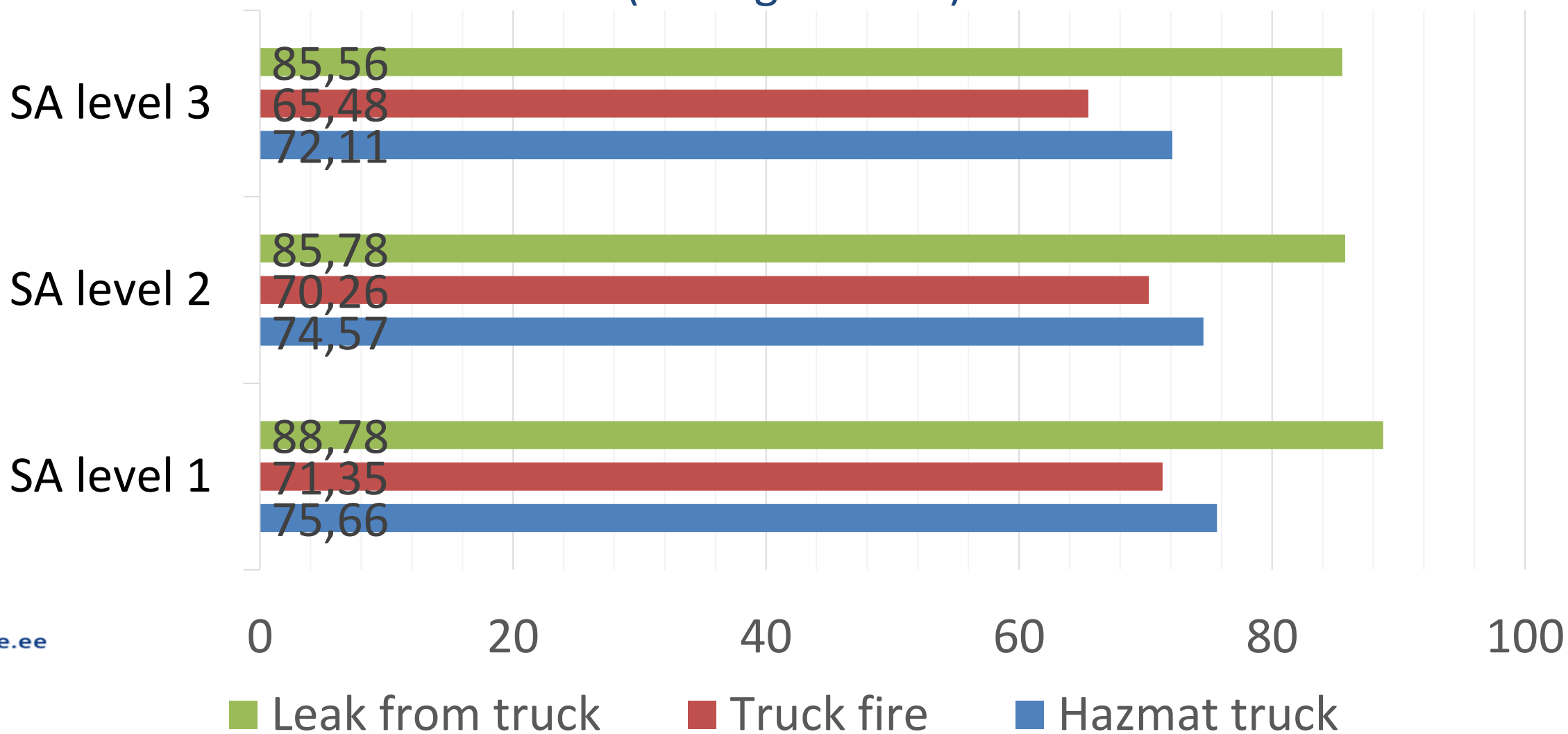


Overall assessment results (n=67)



Situational awareness levels

(average scores)



What to improve?

- Offer more training possibilities in virtual reality environments
- Offer realistic scenarios to improve the possibility to forecast future events (SA level 3)
- Co-operation between road safety agencies and police and rescue
- Train before build



THANK YOU!

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