

Moving Europe towards a sustainable and safe railway system without frontiers.

## Investigating SMS Training

### **OBJECTIVES**

The main objective of the course is to provide an approach for analysing occurrences that will allow to link the findings close to an event with the Safety Management System (SMS) in a structured way, thereby enhancing system learning.

The training will introduce the SMS concept in a railway context and help understanding its benefits and limitations for a sustainable management of safety, as well as roles and responsibilities of all actors. Participants will gain understanding in how accident models determine the questions that will be asked and ultimately the lessons that will be learnt.

Participants will also understand and practice the basic steps for analysing the capability to manage an activity safely (Safety Fractal Analysis, SAFRAN), which includes structured questioning of the influences of human and organisational factors (HOF 5x5) on performance.

After the course, each participant should have a clear idea how to identify the relevant elements of an SMS that can be linked to an occurrence and how to formulate recommendations to improve the SMS that is put in place (not the documentation).

### **METHODS**

The 3-day training session has a modular structure.

The main goal is to apply the approach each day to an on-going or recently finalised occurrence investigation to which the participants actively participated.

The following training tools are used during the course:

- *A preparation lasting several hours, made up of readings, e-learning modules and quizzes;*
- *Presentations with supporting materials (possibly via e-learning);*
- *Q&A sessions to gain clear understanding on the proposed concepts;*
- *Daytime homework assignments to apply the concepts to be performed autonomously (on your own investigation or on the proposed case);*
- *Practical feedback and guidance on the adoption of the concepts to your own investigation.*

**AGENDA: 3 days**

Time	Module	Training Objectives	Training Methods
<b>Day 1</b> 09:00-09:30	<b>0- Introduction to the training</b>	Introduction to the training essentials and tour de table.	Group session
09:30-12:00	<b>1- What is SMS</b>	Introduction to SMS in general. Get acquainted with SMS concept, understand its benefits and limitations for a sustainable management of safety.	Group session Q&A
	<b>2- SMS in EU railways</b>	Introduction to SMS in railways. Get acquainted with SMS in EU legislation, understand roles and responsibilities of all actors.	
	<b>3- SMS and accident models</b>	Understand how accident models determine the questions that will be asked and ultimately the lessons that will be learnt.	
	<b>4- SMS investigation – basic steps</b>	Understand the basic steps to analyse the capability of managing an activity safely, including the influence of HOF on performance	
12:00-15:00			Homework
15:00-18:00			Individual feedback
<b>Day 2</b> 09:00-11:00	<b>5- SMS investigation – digging deeper</b>	Understand how to link the findings close to an event with the SMS in a structured way.	Group session Q&A
	<b>6- Investigating beyond the SMS</b>	Understand how to analyse roles and responsibilities outside the SMS.	
11:00-14:00			Homework
14:00-18:00			Individual feedback
<b>Day 3</b> 09:00-11:00	<b>7- Recommendations for SMS</b>	Understand how to formulate recommendations to improve the SMS.	Pre-session e-learning Q&A

	<b>8- Investigating safety culture</b>	Understand how to deal with safety culture in the analysis of an event.	
11:00-14:00			Homework
14:00-16:30			Individual feedback
16:30-17:00	<b>9- Closure</b>		Group session