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## **Guidelines - Required competencies and relevant training for management to improve safety performance**

*Orientations - Compétences et formations pertinentes pour l'encadrement en vue d'améliorer les résultats dans le domaine de la sécurité*

*Leitlinie - Für eine Verbesserung der Sicherheitsbilanz erforderliche Kompetenzen der Führungskräfte und entsprechende Schulungsmassnahmen*



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## Summary

This leaflet identifies the competencies and training required by management to create the conditions for implementing a sustainable safety culture in railway companies in terms of values, beliefs, attitudes and behaviour.

It posits a competence-based approach to safety management, underlining the importance of starting with the top management level, to ensure ownership of and responsibility for safety by individual managers and by the organisation as whole. Safety must be integrated with other strategic objectives, which should be written down, to ensure that potential conflicts between safety and other objectives are avoided. Individual and corporate safety goals and criteria must be aligned to ensure that management responsibilities for safety are clearly identified within the organisation as a whole.

The safety management system will normally be based on 5 steps following the Deming cycle:

- definition of policy and objectives,
- planning and procedures,
- implementation and operation,
- checking and corrective action,
- management review.

The leaflet then goes on to define the specific roles and required competencies for various managerial levels from senior management down and recommends forms of training to ensure that the relevant competency levels are achieved.

Finally, it includes a guideline for a training standard.

# 1 - Developing a sustainable safety culture - The role of management

## 1.1 - General

The trend nowadays is more towards a safety case approach that will gradually replace compliance with a set of regulations. The EU proposals for a Safety Directive governing railway operation will, de facto, require development of objective criteria for the acceptance of safety cases.

The progressive restructuring and privatisation of railway companies with the EU, including the separation of infrastructure from train operations management, allows new players to run their business using organisational structures and management methods different from those applied in conventional railway companies where safety in operations and the workplace played an important role.

Rail-based infrastructure and public transport include a wider portfolio of risks than other businesses have to address. Safety issues cannot be seen in isolation from the normal range of business risks and procedures. To achieve business objectives, we have to ensure that safety issues are correctly addressed and that senior management take on board safety aspects of work.

Rapid changes in organisational structures and management teams and their consequences for safety underline the importance of adopting a competence-based approach in the field of safety management.

Studies of spectacular accidents have highlighted the extent to which regulatory and management actions and behaviours had led to significant elements of the front line workforce perceiving performance as more important than safety. This context is important as it makes clear that the competence of organisations has to be seen as inextricably linked to the prevailing culture within both single businesses and with the wider railway system formed of multiple players.

Assuming that the management cadres of an organisation not only lead and direct business decision-making processes but also safety-critical issues, it is essential that their competence be built up and maintained in a systematic manner.

The relationship between a competent individual, the teams of which individuals are members and wider competence of the organisation should be considered. Up till now, thinking with regard to safety has been focused largely on front line safety-critical activities rather than those of a managerial nature.

The key to a sustainable safety culture is the elimination of thinking that safety is just a "bolt on" and should therefore be the reserve of safety specialists with special responsibility in this area and front line workers operating in a hazardous environment.

Thus developing competence and a positive safety culture is about developing aligned values, beliefs, attitudes and behaviours. Training is but one input required to secure the desired behavioural outputs. Furthermore managing safety should form part of a self-assessment process in a learning organisation.

These fundamentals of a sustainable safety culture require a more structured approach to the assessment and development of the competence of senior managers in strategic safety management.

## 1.2 - Definition of terms

The following definitions of competence and safety culture illustrate the dependencies between what are too often seen as discrete issues:

- **Competence** means the ability to undertake responsibilities and to perform activities to a recognised standard on a regular basis. Competence is a product of practical and thinking skills, experience and knowledge, which is influenced by personal attributes such as attitudes, beliefs and values. The precise combination required depends on what needs to be done, in what circumstances and how well. A person, a team of people or an organisation is competent when they work consistently to an expected level of performance. Expected levels of performance change over time.
- **Safety culture** is the product of individual and group values, of attitudes and patterns of behaviour that lead to a commitment to an organisation's health and safety management. Organisations with a positive safety culture are characterised by communication founded on mutual trust, by shared perception of the importance of safety and by confidence in the efficiency of preventative measures.
- **Senior management** in the context of this leaflet is a group of representatives in the company with individual and collective accountability. The principles described for this role can be considered valid up to the level of Board of Directors. They take decisions, define policies and goals and establish strategies to achieve the goals according to their field of responsibility. They are responsible for safety in their own field of business. Even if they partially delegate this responsibility, they still have to ensure that the organisation they have put in place is effective.
- **Middle management** in the context of this leaflet is a group of persons in the company who translate company goals into operational targets and programs. They are responsible for their decisions.
- **Supervisor**: a person in charge of a group of workers, responsible for the day to day work and working conditions. Even a senior manager may play this role as well.
- **Safety manager/safety specialist**: consultant vis-à-vis management with specific knowledge of safety aspects, whose work involves monitoring and auditing performance.

## 1.3 - Basic principles of a competence management system

All managers including members of the board should accept that they are accountable for safety.

In particular the Board of Directors play a very important role in determining the corporate safety culture of an organisation. Their decisions, and what they regard as important, set the scene for everyone else. Leadership and commitment from the top is the essential requirement of a strong safety culture and it must begin at Board level.

They can limit the extent by delegating parts of their personal responsibility to line operating positions but they still remain responsible for establishing an effective organisation and a no blame culture. They should consistently demonstrate their conviction and commitment to continually improving safety.

Competence and competence management are **not** simply concepts applied in respect of the front line work force performing work of a safety-critical nature. The senior management **must** accept that unsafe acts leading to loss may have their decisive roots in or close to the boardroom and are not essentially the failures of those at the sharp end.

Instead they should be considered as the product of the multiple interactions that happen in a such complex system as the railway organisation. These interactions involve different dimensions related to different organisational levels, i.e. management decisions, training plan, technological interface, specific working situations, people attitudes, etc.

A sustainable safety culture requires an open mind and a willingness to learn from loss instead of blaming the person directly in line. Lessons learned from accident investigation, the processes and decisions behind the scenes and understanding the safety performance are just a first step aimed at preventing recurrence.

However, safety management requires a clear and general acceptance that the key to safety improvement is the elimination of thinking that safety is a "bolt on" and an acceptance of the need for the total integration of safety within the wider processes by which businesses are managed.

### **1.3.1 - Competence Management System**

The formal competence management system used has to embrace all management activity with a safety dimension. Ideally, it is just one component of the corporate processes for managing business risks and achieving business goals, including those related to the control of loss from unsafe decisions, acts and conditions.

To avoid a standards driven approach to managerial competency in safety management being mechanistic, paper driven, a response common to senior teams and individual senior managers, greater progress in developing their competency will be achieved by encouraging the adoption of evidenced good practice, providing guidance, tools and techniques. That can be adapted for application by each railway business according to its needs recognising of:

- the hierarchy of relationships between individuals, companies and the regulatory framework;
- the role of good practice in transferring knowledge;
- the requirement to develop organisational ability to interpret and develop appropriate responses to the requirements of laws, regulations, standards and targets for safety improvement in a way that leads to satisfying societal expectations for a safer railway;
- the need for businesses to understand and take responsibility for addressing safety risks in their control. By extension this equally applies to them playing their part in addressing risks shared with others.

### **1.3.2 - Assessment and development of senior management (teams)**

The starting point in assessing and developing senior management capability is that a senior management group or team must be able to show that it is competent to manage an organisation that is capable of consistently working safely. In so doing the senior team will first need to systematically consider the safety risks they create and face as a result of current and planned business activity.

The process has to be designed to engage all members of the senior team, including those who may assert that they have no safety responsibilities. Identifying that some senior managers feel this way is a significant first step, as patently all of a senior team taking investment decisions will clearly need to have considered the safety implications before declaring themselves in favour of or against a particular decision. For example given the costs and wider commercial benefits should a train be built to meet or exceed the mandatory requirements?

### 1.3.3 - Cascade effect

The initial focus of supporting the development of the capability of senior management teams in strategic safety management will lead to an acceptance of a model that would better equip them to align the safety performance of middle and more junior managers with delivery of the organisation's safety objectives and the development of a progressive safety culture. Given the competency roots of this approach this can be translated into a will to demonstrate that managers can consistently achieve the level of performance to carry out their safety responsibilities effectively.

## 1.4 - Safety Management System

The Safety Management System is an effective and useful tool for disseminating a safety culture in a company. It allows safety performance to be measured at each level of the organisation.

The Safety Management System is part of the overall management system that facilitates the management of the safety risks associated with the business organisation. This includes the organisational structure, planning activities, responsibilities, practices, procedures, training, processes and resources for developing, implementing, achieving, reviewing and maintaining the organisation's safety policy.

The base of the safety management system should be the analysis of previous experiences that activates an ongoing learning process and a proactive approach towards risk prevention and organisational safety empowerment.

This system operates following the Deming quality circle, forcing the organisation to continual improvement. In fact the elements of a successful safety management process are:

1. **Safety policy**, i.e. the policy is authorised by the organisation's top management. It clearly states overall health and safety objectives and their commitment to improve health and safety performance.
2. **Planning**, i.e. the organisation shall establish a permanent procedure for the ongoing identification of hazards, the assessment of risks and implementation of the necessary control measures.
3. **Implementation and operation**, i.e. definition of the structure and responsibilities, identification of the personnel training, awareness and competence requirements, ensuring that a relevant safety system information is communicated to and from employees and other interested parties, documentation management, identification of operations and activities associated with identified risks, establishment and maintenance of emergency plans and procedures.
4. **Checking and corrective action**, i.e. establishing and maintaining procedures to monitor and measure the safety management system on a regular basis. This point can be accomplished by accidents, incidents, non-conformances and corrective and preventive actions, by records management and by audit activities
5. **Management review**, i.e. the system has to be reviewed to ensure its continuing adequacy and effectiveness based on the learning process related to the analysis of accidental events, injuries but also working practices and people attitude at work.

## 1.5 - Integrating safety with other strategic performance objectives

In most organisations where performance of managers was reviewed, there was no structured consideration of the extent to which a manager had or had not contributed to the delivery of the organisation's safety objectives.

Safety responsibilities of individual managers should be defined more explicitly to enable the reviewing manager and reviewee to agree the indicators against which successful delivery of safety objectives will be assessed.

The principle of the four key objectives can be carried forward from the competence model to the strategic safety management model.

Application of the model requires that there is a positive approach to the identification of roles having both direct and indirect safety responsibilities and therefore better identification of the hazards and risks that individual managers have to manage.

## 1.6 - Aligning individual and corporate goals and criteria

Before moving to review safety performance of individual managers an organisation should be evaluated itself helping the organisation and individual managers to improve safety performance.

There are regular benefits from asking if

- safety measures are delivered cost effectively;
- personal development needs are satisfied;
- do management actions contribute to delivery of organisational safety goals; and
- does the sum of individual objectives adequately cover the wider organisational safety goals?

When setting safety objectives, it is essential that their fit with other objectives is validated and that the safety objectives' delivery will not preclude achievement of wider objectives set an individual manager. A weakness of many performance reviews is that the evidence against which performance is reviewed is neither owned nor well understood by the manager subject to review. The evidence that is needed must be sufficient to enable a proper consideration of attitudes, beliefs and their application through behaviour.

Clearly the output of the review process is a portfolio of actions that need to be taken by the reviewed manager, the line manager and often elements of the wider organisation. In all cases the actions must be appropriate to the elimination of the hazard/control of the risks involved, prioritised, delivery of targeted safety performance and capable of definition in a way that enables progress to be monitored.

## 1.7 - Strategic responsibility and organisational learning

For this review process to work there has to be a senior team member (i.e. safety manager) willing to act as champion for the process with support from a committed and effective process manager able to equip reviewers with the necessary skills to undertake the reviews in a manner wholly aligned with the development of the corporate safety culture. This will only really be achieved when the organisation demonstrates that it has learning from the reviews to:

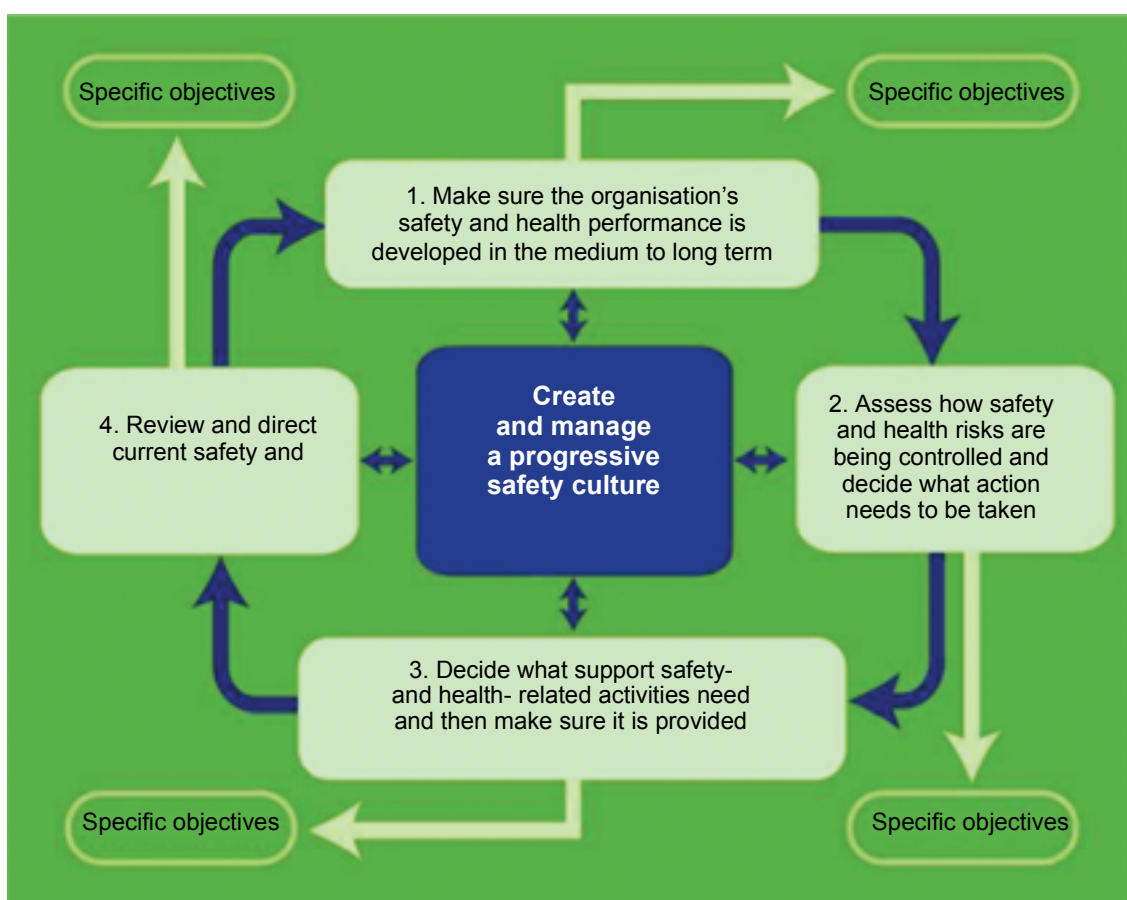
- identify and respond to mismatches between individual responsibilities and organisational objectives;
- target training and development spending and monitor its effectiveness;
- identify significant skills gaps and, where necessary, re-evaluate roles;
- improve succession planning;
- refine recruitment and selection requirements;
- evaluate the effectiveness of the review process.

## 1.8 - Players on the field and their role to ensure managing safety and build up a safety culture

### 1.8.1 - Senior management

The senior management is responsible for setting up the four objectives for a sustainable safety culture. It should strictly follow the above-mentioned Deming cycle with the actions of planning, doing, checking and reviewing.

The overall aim of applying this process is summed up in the following diagram where creation and management of a progressive safety culture are the outputs of delivering the four key safety objectives. These key objectives break down into a larger number of specific objectives.



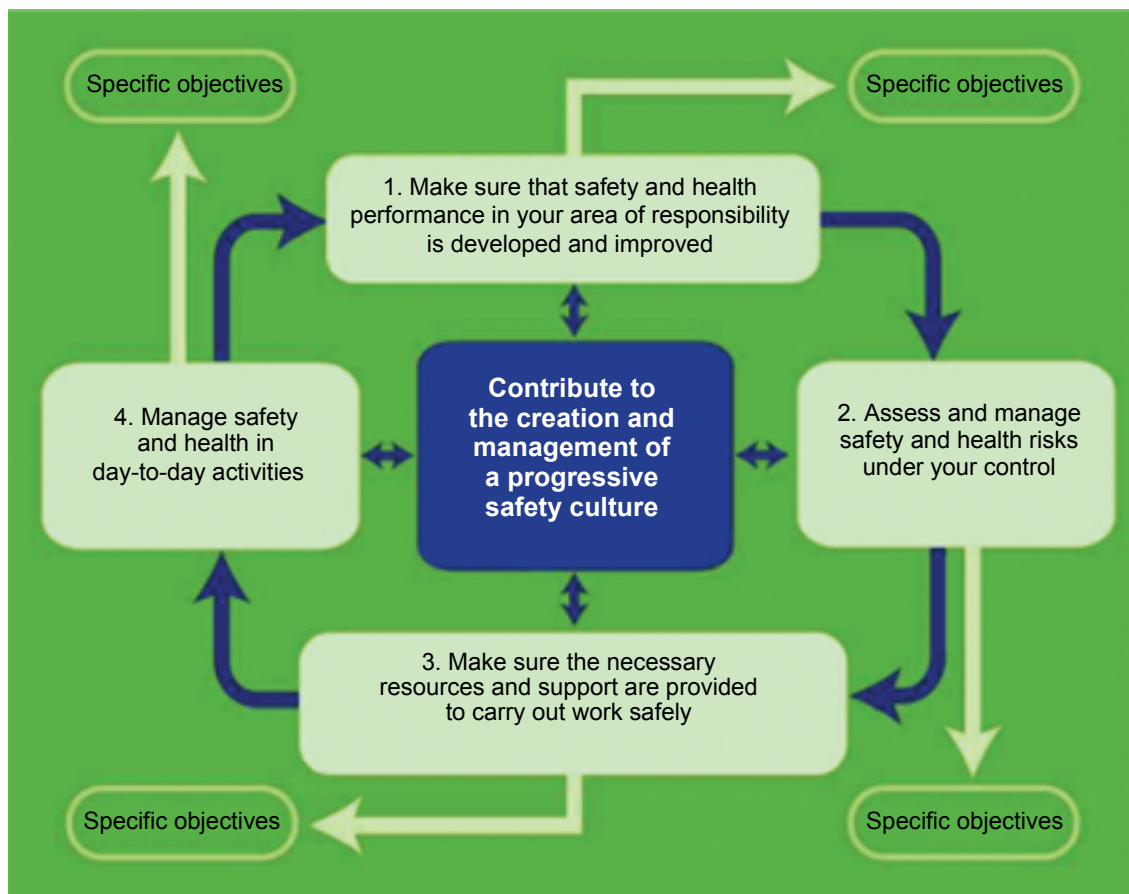
The above organisational objectives are the route by which a rigorous and open self-assessment will enable a management team to review:

- the effectiveness of their safety management policies and strategies;
- how well these policies and strategies are being implemented;
- the performance and training / development needs of the team and its members.

The management team itself will sponsor the process and is carrying the can for permanent improvement due to their safety accountability in the board.

## 1.8.2 - Middle management and supervisors

Starting from the four key safety objectives these should be transformed by the middle management and/or supervisors into more practical programs and actions:



## 1.9 - Skills and abilities needed to fulfil the new requirements

All skills and abilities, associated factors and competencies their personal attributes as well as their roles are briefly described in point 2 - page 10. The training requirements to achieve competence on the different levels and the ability to work within learning organisations are described in the guidelines for a training standard.