CER

The Voice of European Railways

Position Paper

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CER views on CSM revision: how to deal with safety culture and human factors

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Context:

The revised Safety directive published in 2016 requires that: "*The safety management system shall be documented in all relevant parts and shall in particular describe the distribution of responsibilities within the organization of the infrastructure manager or the railway undertaking. It shall show how control is ensured by the management on different levels, how staff and their representatives on all levels are involved and how continuous improvement of the safety management system is ensured. There shall be a clear commitment to consistently apply human factors knowledge and methods. Through the safety management system, infrastructure managers and railway undertakings shall promote a culture of mutual trust, confidence and learning in which staff are encouraged to contribute to the development of safety while ensuring confidentiality.*"

The EU Agency for Railway is currently revising the CSM CA. The following new provision is proposed: « *The human plays a central role in the safe and efficient operation of the railway. Pursuant to Article 9(2) of Directive 2016/../EU,(1) the railway undertakings and infrastructure managers should take a systematic approach to integrating and managing human factors within the organization through their safety management system* ».

Problems:

Cross reference between regulation and directive should be avoided as then the directive becomes directly a regulation.

As proposed, the criteria added to the CSM may lead to different interpretations and requirements by stakeholders, the Agency and NSAs, thus creating uncertainty and discrimination to obtain safety certificate and safety authorization.

Proposed way forward

Delete reference to directive in the CSM.

Add text for each of the next CSM criteria related to Human factors and safety culture: "Basic points to increase the common understanding and help to define the HF and safety culture in a clear and transparent way across Europe can be found in Annex IV."

Create an Annex IV to the CSM with the main criteria influencing human factor and safety culture

Create guidance on how to manage the criteria and publish the guidance before the revised CSM will enter in force. The Agency should also anticipate associated educational effort targeted at specific groups (e.g. RUs, IMs and NSAs).

The text below is an exploratory proposal of what could be the nine (9) criteria to be listed in an Annex IV and what could be the corresponding guidance (see proposed "Explanation not to be included in CSM annex"). No any additional requirement should be asked by the NSAs.

The proposed CER approach is based on UIC Task Force on Human Factors network.

| Proposal for Annex IV / Guidance |

Safety Culture and Human Factors basic points – Annex IV possible criteria

1. Engagement and involvement in safety

Each manager and staff members shall be aware of the impact of their activity on railway safety. Managers and workforces shall contribute to the identification of safety problems and be able to propose solution.

Explanation (not to be included in CSM annex):

If managers and workforce are involved in the identification of safety problems and their solutions, they will have a sense of ownership of safety. Safety is an area in an organization to which everyone can contribute. The organization should have processes for involving managers and staff in safety matters

2. Management and Leadership by example

Organisations shall promote and develop managerial leadership.

Explanation (not to be included in CSM annex):

Leadership is a key part of management, since it is a means to "influence the behavior of people". Leadership is essential because it moulds attitudes at work, in particular with regards to safety culture. It will also be pivotal in sealing the success or failure of preventive policies implemented in the company. When staff are genuinely convinced that safety is central in the organization, and is an absolute priority, then leadership will have a positive effect. As a consequence, given the close link between management and leadership, it is crucial for managers to appear credible to employees in order to ensure that their management efforts are effective.

Leadership in safety can be defined on the basis of certain principles applied: ensuring that the notion of safety championed in the organization matches the organization's values, that safety occupies the place it deserves on a daily basis, that this approach is widely shared (influence, persuasion, feedback), that this approach is given credibility through behavior (example) and consistency of actions taken, when team work is fostered along with cross-cutting cooperation (observation, listening and communication) and when proper action is recognized/rewarded, and when any infringements are seen to be handled with "fairness".

3. Just and fair Culture

Worker contributions shall be possible. When there are safety related events, systemic failure shall be distinguished from human errors.

Explanation (not to be included in CSM annex):

A just and fair culture is an intrinsic feature of a good safety culture. It is an environment in which worker contributions are encouraged and where the underlying causes of events are analyzed in order to distinguish between what is due to systemic failure and what is due to human error.

The principles underpinning such a culture will seek to promote practices which will foster trust at all levels of the organization.

- *Guarantee a just and fair form of management, i.e. neither excessively punitive nor too lenient;*
- *Recognize that mistakes are possible; (or that mistakes are natural behavior, or that mistakes are human …)*
- *Clearly distinguish between errors and deliberate infringement: errors being an involuntary misguided action, while infringement is the voluntary violation of a standard;*
- *Distinguish between what is acceptable and inacceptable (infringement or not)*
- *Reward positive behavior and positive contributions to safety;*
- *Protect individuals from summary judgement and offer the appropriate assistance.*

Such a culture should also as a minimum have a just and fair system in place for analyzing safety incidents.

- *"Just" because the deviation is judged independently of its consequences (given that the same deviation may have differing consequences depending on context), and because the limit between acceptable and unacceptable is known to all actors within the company (Reason, Managing HRO)*
- *"Fair" means that the process distinguishes between individual responsibility for certain contributing factors and responsibility which lies within the organization as a whole*

4. Rules to match

Rules shall be well identified, understood and applied by concerned actors, reviewed on a regular basis and changed whenever necessary.

Explanation (not to be included in CSM annex):

Rules should serve as tools in the workplace to offer assistance or solutions to problems, and offer a clear framework for workers, by stating what action to take. Finally, rules are a tool to leverage knowledge capital within an organisation, and can be used to ensure that this knowledge base is passed on.

In order to foster a good safety culture, rules should be appropriate and well designed, reviewed on a regular basis and as far as necessary changed to take into account individual needs, those of the organisation as a whole, and the goals and environment within the organisation. If managed in this way, rules will match the situations encountered daily by railway actors, generating buy-in to the rule.

5. Resources to match

Allocation of resources (financial, equipment, staff, roles and responsibilities, etc.) and management of their competence shall be part of the safety management system.

Explanation (not to be included in CSM annex):

To ensure a safe working environment adequate resources must be provided. This implies proper apportionment of roles and responsibilities, proper supply of workers, organisation of work, skills, proper procedures and tools. In summary, this means proper resource management is paramount for safety. Of course, a good safety culture is a vital part of these fundamentals.

The company decides how to allocate its resources, and this apportionment is described as part of the safety management system of the company. The general description in the safety management system is then translated into documents for internal use or specific work instructions.

- *Roles and responsibilities*
- *Human resources*
- *Documentation*
- *Tools and materials*

6. Organisational learning

A continuous improvement process shall be part of the safety management.

Explanation (not to be included in CSM annex):

The Organisational learning can be considered as an organizational philosophy whereby the approach to any problem is regarded as an opportunity to learn. There is a willingness to learn from others and share your own experiences with them.

An organisation with a strong learning culture collects information from various sources, distils and applies useful lessons, shares knowledge and follows up on lessons learned by improving processes.

7. Change management

Changes to the organisation or technical system shall be anticipated and accompanied.

Explanation (not to be included in CSM annex):

A good safety culture can be identified through the importance attached to change management in terms of reorganisation, technical or operational changes, etc., which could affect safety.

Awareness of the importance of change means that change can be anticipated and prepared for, to ensure that all necessary steps are taken to avoid negative consequences.

Where appropriate change management processes shall recognize the importance of ensuring that adequate preparation is undertaken before the change takes place, e.g. workers are adequate in number and competent to undertake their new or revised duties following the implementation of the change

8. Cooperation and trust

Common goals defined

Necessary and complementary skills

Motivation and social ties (collective identity), promotion of mutual help, benevolence, integrity and competence.

Explanation (not to be included in CSM annex):

The workplace is made up of "a group of individuals with skills which complement each other and agree to pool their potential and their efforts to achieve a common identified goal."

In practical terms this can be felt through team spirit which is the bond between the individuals in a group, and the ingredient which instils cohesion within a team and is the incentive for this group to work towards a common interest. Trust thus appears to be the pivotal ingredient for a team or group of teams to work together.

Trust is more than just a management objective; it is the prerequisite for a good culture of safety. Trust must exist within groups and between groups from different departments who are required to work together, as well as vis-à-vis external partners.

9. Communication

Safety related communication process shall be identified and continuously improved to ensure appropriate information of each concerned actor within and outside the company.

Explanation (not to be included in CSM annex):

Communication is central to an organisation. It guarantees effective transfer of management and operational information, including formal and informal exchange of safety related information at all levels.

A good safety culture will inevitably include an environment where communication is actively encouraged and practiced throughout the organisation.

- *Top-down information:*
The vision, mission and also the aims of the company should be clear by all the employees (including the executives in all levels). Staff are informed of major alterations in strategic direction, and of internal changes. They are informed and they understand the organization's safety policy, and have access to results and trends. Decisions are explained and details are given about the circumstances in which problems may have arisen.

- *Bottom-up information:*
The staff gives a feedback to management about how work is conducted, about any problems encountered and any possible solutions.

- *Cross Communication:*
There is a feedback loop between all the internal organisations and departments and also to all external partners (e.g. other companies, suppliers, contractors, RU's, …)

- *Safety topic for discussion:*
Safety should be a subject for exchange of information, experience and opinions among members of a team or between teams. These exchanges can be part of a formal programme or reflected by an ad hoc flow chart.

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About CER

The Community of European Railway and Infrastructure Companies (CER) brings together more than 70 railway undertakings, their national associations as well as infrastructure managers and vehicle leasing companies. The membership is made up of long-established bodies, new entrants and both private and public enterprises, representing 73% of the rail network length, 80% of the rail freight business and about 96% of rail passenger operations in EU, EFTA and EU accession countries. CER represents the interests of its members towards EU policy makers and transport stakeholders, advocating rail as the backbone of a competitive and sustainable transport system in Europe. For more information, visit www.cer.be or follow us via Twitter at @CER_railways.