SAFETY MANAGEMENT SYSTEMS: OPENING THE MARKET THROUGH COMMERCIAL FREEDOM AND SAFETY RESPONSIBILITY IN THE EUROPEAN LEGISLATIVE FRAMEWORK

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SUMMARY

The goal for the European rail legislative framework is more, higher quality rail services for passengers and freight customers, at an efficient cost. It is a precondition of reaching this goal that safety is maintained or improved. The European rail safety legislation provides a structure to achieve this. If it is to work as designed, the Agency, Member States and their authorities, and the sector must establish the right incentives, behaviours and responsibilities. The Safety Management System is the cornerstone of this framework, designed to provide robust safety regulation and accountability, combined with the necessary flexibility for a shared, open and thriving sector. Finally, a system-based approach requires strong safety culture, shared by all the actors, that goes beyond blame and aims for improvement and best practice.

INTRODUCTION

This paper is intended to describe, at a high level, the roles and responsibilities of the main actors in the European rail safety regulatory framework at a Member State level[1]. It is not a guide to the legislation and does not set out in detail the tasks of each actor.

The vision describes how the framework should work, as designed in the Safety Directive[2]. We know that there are lots of reasons why, in some areas, the framework does not work as designed today. These include the interaction with existing national legal systems, incorrect transposition and implementation of the European legislation, under-resourced authorities and / or rail companies and long-standing cultures and beliefs regarding safety management. There are other pieces of work within the Agency[3] to help identify and target these problems, although many of them can only be solved at a national level. Nevertheless, it is hoped that an explanation of how it should work will support improvement.

The term ''responsibility'' can create confusion and does not translate easily from one language to another. In this paper, the term is used to describe safety duties created by the European rail safety regulatory framework, enforceable primarily by National Safety Authorities. It is not (always) the same thing as criminal responsibility under national law, enforceable by national courts. Another term that should be distinguished is ''liability'', here intended to mean an obligation to pay compensation under a contract or legal provision, to another party, for loss caused. In a well-designed system, Member States should ensure that safety responsibility according to European law, criminal and contractual liability should as far as possible be aligned and at the very least, should

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[1] Although the European institutions have an important role in setting the regulatory framework, under current legislation, the European Railway Agency has no operational safety role.

[2] 2004/49/EC

[3] The Regulatory Monitoring Matrix, proposals for a New Approach to Safety Performance Monitoring, NSA Cross Audits and NIB Assessments

not conflict. (See further below:The types and sources of responsibilities). Nevertheless, allocation of risk for losses caused by breach of contractual obligations is a commercial matter and therefore, may not always fit exactly with the safety responsibilities set out in the European framework and national civil and criminal laws (which differ widely across the Member States).

DESIGNING NATIONAL SAFETY REGULATORY SYSTEMS – OBJECTIVES, BEHAVIORS AND INCENTIVES

Market opening
The overarching objective of the European rail regulatory framework is to offer more, higher quality rail services to passengers and freight customers, at an efficient cost. This objective is to be achieved on the pre-condition that the safety of rail is maintained or improved. However, the systems and rules used to achieve safety have the potential to block the introduction or improvement of rail services, and make them more expensive.

All the actors want rail to be safe, but safety is a pre-condition of the principal objective, not the objective itself. The objective is to get from A to B in the best way possible, and maybe even to C, D and E!

Legislation to open the market is already in place and the industry has started to change. There are now many new entrants into the market, so that the old structures and systems, including rule frameworks, created and applied by national, vertically integrated rail companies, are no longer the best way to manage safety, and are increasingly inadequate in managing safety in this shared system. In these circumstances, change is both better and necessary.

Encouraging the right behaviors
In a well-designed regulatory system, actors know what they have to do and it is as easy as possible to do it. This means that actors, which include authorities, are incentivized by a strong regulatory framework to do the right thing wherever possible and any unnecessary obstacles are removed. Incentives can include rewards, for example, commercial advantages, or costs, for example clear rules which are enforced with effective penalties.

Through the interventions of national authorities, the framework must facilitate and require a strong safety culture, evidenced by these key behaviors;

- Understanding and sharing the main objectives;
- proactively taking responsibility;
- strong and trusted relationships;
- communication that works to resolve problems;
- sharing faults and problems – even with competitors and regulators;
- Going beyond blame, to improvement and best practice.

Confidence in all the other actors and interfaces
If there is a lack of confidence in how others are working, actors can be motivated to duplicate or double-check others roles. This can encourage others to relax or neglect their own tasks, so that roles can be confused or ignored. This is particularly a problem in a shared system, where fulfilling responsibilities relies on trusting others to fulfill theirs. This is true for almost every relationship in the industry, for example, between;

- Infrastructure managers and railway undertakings;
- National safety authorities and railway companies;
- Conformity assessment bodies, CSM assessment bodies, NOBOs, DEBOs and railway companies;
- National safety authorities and national investigation bodies;
- Railway companies and:

- manufacturers;
- training centres;
- contractors, including maintenance providers such as ECMs and maintenance workshops.

Where these responsibilities begin and end is explained more below. But it is important that poor or inadequate performance is identified and dealt with, and that everyone is confident that this is what will happen. Otherwise, at best, time and money is wasted where tasks are duplicated. At worst, roles are confused so that gaps appear, or poor performance is encouraged, by a lack of enforcement.

Each additional interface creates risks that must be managed by those with the best opportunity to do so. This means that National safety authorities and certification bodies must fulfill their supervision and surveillance obligations, and contracting parties must carry out reasonable monitoring activities (see more SUPPLIERS - KEEPERS, ENTITIES IN CHARGE OF MAINTENANCE, SUBCONTRACTORS AND MANUFACTURERS) in order that all interfaces are well managed.

Managing an interface is NOT the same as duplicating another's role or assuming their responsibilities.

Rules in a risk-based approach
It would be easy to design regulatory systems if either of an entirely rule-based system, or an entirely risk-based system, could be shown to be the best. In reality, getting the balance right between rules and risk-assessment is far more effective in managing safety, whilst achieving the main objective of offering quality rail services at an efficient cost.

Rules, including standards and 'acceptable means of compliance', are useful and cost-effective where risks and their controls are well understood, established and consistent, or where everyone needs to do the same things, such as making shared technical interfaces work. Clear and well published rules can also support new industries, or new entrants to industries, to be clear about what they have to do. But an over-reliance on rules can also create over-confidence that a risk is being managed, particularly when the rule-maker lacks or has lost knowledge and understanding of an activity and the associated risks, is not able to maintain and update the rules when circumstances change or where actors are routinely ignoring a bad rule. They can also be costly and inflexible, requiring more to be done than is necessary to control the risks, creating unnecessary obstacles for new entrants to the market and absorbing time and resource of authorities that could be better targeted elsewhere.

Where appropriate, requiring a more dynamic approach to decision-making, based on skilled risk-assessments, gives actors more flexibility. This flexibility allows for optimised, more cost-effective, innovative and up-to date solutions.

A well-designed system should be fit for purpose for the industry concerned, reflecting the maturity of safety management systems across the sector, and the ability of railway companies to manage interfaces and solve problems through communication. There should be robust rule-making procedures, allowing rule-users to participate, including regular reviews of the rules, as the sector matures. For an industry with a European dimension, this will include making sure that rules do not conflict with or duplicate European harmonized rules and do not create unnecessary barriers to the market.

Why regulation adds value
Regulation, either in terms of legislation or supervision by an authority, can be understood as the condition imposed by society, in order to accept the risks of commercial activity. In other words, in a democratic system, if we are to accept companies doing business, we impose on those companies a level of regulation, in order to be confident the risks the business exposes us to are managed. In terms of rail transport, the relatively high safety performance of rail is a fundamental requirement in order for the continued transport of goods and people by rail, rather than road or other modes.

But it is too simplistic to suggest that regulation imposes safety on unwilling businesses. The relationship can, and should, be far more constructive and cooperative than that.

There is a fair and basic assumption that all people want to avoid hurting other people. Similarly, all actors want rail to be safe. But too often, other commercial or economic priorities get in the way. A company that recognizes the human and economic costs of poor safety, and balances this against its other priorities, will welcome, and actively look for, guidance and support from a helpful safety authority and other sources of best practice. These companies are more likely to be demonstrating or establishing a good safety culture .

Ultimately, being trusted to do things safely and properly allows organisations more freedom to keep costs down and be successful. This is true for everyone, for example: railway undertakings, entities in charge of maintenance, notified bodies and safety authorities. So it is in everyone's interests to get the system right and working properly.

SAFETY MANAGEMENT SYSTEMS (''SMS'') AND RESPONSIBILITY

How an SMS adds value
It is almost too obvious to state that good management is good for business, and that well-managed businesses tend to be more successful. An organisation with good safety management usually does well at managing other aspects of the business at the same time, such as quality, production, environment etc.

Although some well-drafted and publicized rules will always be necessary, an industry made up of organisations that are good at safety management can benefit from a reduction in detailed and difficult national safety rules, without necessarily any reduction in safety performance.

A good SMS should work across all aspects of the business. In addition to managing what the organization itself is doing today, the SMS should operate broadly, across both time and distance;

- Time – so that an organisation reviews past performance, understands what has happened and how to improve and also anticipates its future needs and is proactive in managing them;
- Distance – so that the SMS not only influences the organisation's own behaviors, acts and decisions, but also determines the organisation's relationships with its suppliers, customers and other stakeholders, to the extent that that organisation can reasonably influence them. For example, contractual relationships with suppliers, good information-sharing with customers and feedback and communication with authorities and policy-makers.

In general terms, it is a key principle that organisations should control the risks created by their activities. Similarly, responsibility for controlling risks, should sit with those with the greatest opportunity to control them. This applies to businesses as well as authorities and other policy-makers, because any power to take a safety-relevant decision comes with some degree of responsibility to do it adequately (See further NATIONAL SAFETY AUTHORITIES (''NSAS'') and MEMBER STATES)

System responsibility
More specifically, the European rail safety regulatory framework gives certain actors distinct responsibilities. Most obviously, only railway undertakings and infrastructure managers are required to have safety management systems in order to obtain safety certificates or safety authorisations. Entities in charge of maintenance of freight wagons are also required to be certificated, but the management system they are required to demonstrate is limited to maintenance only as they do not have responsibilities for operations, so that the requirements for obtaining a certificate are structured differently. Other actors of course have statutory and other responsibilities outside of the European rail safety framework, and these are discussed below. Nevertheless, because railway undertakings, infrastructure managers and entities in charge of maintenance are required to hold certificates /

authorisations, and because these are the mechanism by which safety authorities and certification bodies may supervise these organisations, we can consider that railway undertakings and infrastructure managers have a specific system safety responsibility, and entities in charge of maintenance have system safety responsibility that is limited to maintenance, under the rail safety framework.

System responsibility means that the authorities will hold these organisations responsible for managing the contributions of others, and taking the right decisions with respect to those contributions. This is true even though other organisations have their own responsibilities from a number of different sources. For example, if a railway undertaking is informed, or otherwise becomes aware, of problems with the quality of the products it is buying, perhaps during its regular contract reviews with a supplier, the railway undertaking will need to take its own decision regarding the use of those products within its operations. This is separate to the pursuit of any compensation that may be available under the contract with the supplier, or other legislation. It is also separate to any responsibilities the supplier has to take corrective measures.

Having said that, system responsibility is not the same as being liable or to blame for anything and everything that goes wrong in the supply chain. There are many risks that other actors are better placed to manage directly, where RUs and IMs can only have an indirect influence. (See further SUPPLIERS - KEEPERS, ENTITIES IN CHARGE OF MAINTENANCE, SUBCONTRACTORS AND MANUFACTURERS). Managing safety is a dynamic and ongoing activity. Achieving strong safety performance across a complex industry consisting of multiple supplier interfaces is difficult work. Inevitably, it requires a dedicated commitment to understanding and fulfilling our respective responsibilities. National safety authorities in particular must avoid looking for simple solutions that fail to understand the underlying and system-based causes of poor risk management.

The types and sources of responsibilities
It is worth considering that responsibilities, requirements and obligations can come from a number of different sources and operate in very different ways to influence behaviours. Most national legal systems contain their own health and safety legislation, including criminal liability, sometimes reflecting other ideological approaches, which can overlay or conflict with the European rail safety framework. In these circumstances, adequate transposition of European laws will need to go further than the specific rules themselves, and look at conflicts with other national legal frameworks, in order to make sure the European rules function properly.

Examples generating responsibilities, requirements and obligations;

- Commercial liability to pay compensation or other money when goods and services are provided or when things go wrong. These contractual obligations can arise from multi-party, international agreements, such as the GCU or COTIF (although EU law takes precedence for rail traffic limited to the EU). Examples include payments when the network is unavailable or payments due when rolling stock is delivered and / or authorized for placing into service;
- Industry standards and agreements, such as UNIFE's International Railway Standard (IRIS) which complements the ISO 9001 quality standard.
- Civil liability to pay compensation or penalties under national law for causing harm or loss to other people or organisations. For example, compensation for damage caused to property next to the railway line or compensation for the health problems of passengers caused by witnessing suicides.
- Both general and transport-specific criminal liabilities for deliberately or negligently causing loss of life or property.
- Moral responsibility can often overlap, or be confused with, other types of responsibility. Reputation is linked with morality, but can also be combined with commercial success, confidence of investors and regulatory authorities and credibility. A private provider of public rail services, that is widely considered to have a poor safety record, will have to work harder to convince ministry officials in its next contract / franchise bid, partly because the decision-maker will fear blame if the same problems arise again. Similarly, private companies, including investors, enter into contracts with other companies based on an

assessment of the risk of doing business, which can be damaged by a poor safety or commercial reputation.

- Wider European legislation covering health and safety, product liability and public procurement applies to rail companies and their suppliers.

Responsibilities under the European rail safety framework can overlap with these other types of responsibility. Knowing about these other responsibilities, and understanding how they work and their limits, can help railway undertakings, infrastructure managers and entities in charge of maintenance to discharge their own responsibilities, but if European rail safety is to be maintained as intended, these other mechanisms cannot substitute the responsibilities in the European rail safety framework.

For example, railway undertakings need to understand the product liability legislation and obligations imposed on their manufacturer suppliers. These obligations are rigorous and require manufacturers to adopt industry standard practice in terms of their organisation, design, production, customer instructions and ongoing monitoring. There is no added value in a customer imposing costly and duplicate requirements on its supplier manufacturer. Nevertheless, the railway undertaking is best placed to understand its own operational requirements and constraints, and therefore needs to specify its needs intelligently and responsibly. For example, an operator will have to be clear about how it intends to use the product, subsystem or vehicle, perhaps by setting performance targets for the maintenance plan.

Inevitably, in some areas the responsibilities are less clear and may overlap. Here, the concept of system safety responsibility works to ensure that railway undertakings, infrastructure managers and entities in charge of maintenance understand the risks involved, particularly at the interface with others, work to avoid ''gaps'' in responsibilities and take appropriate decisions with respect to their suppliers. Authorities are there to ensure that this happens.

RAILWAY UNDERTAKINGS, INFRASTRUCTURE MANAGERS AND ENTITIES IN CHARGE OF MAINTENANCE

Freedom comes with responsibility

As explained above, the overarching goal of European railway policy is to create benefits for rail customers, as well as European tax payers, by creating the right conditions for more, higher quality rail services at an efficient cost. This should also create opportunities for existing and new rail service providers to expand their businesses and enter into new markets.

A management system-based approach to safety regulation is the best approach in this more open, shared structure, as it reduces rigid, nationally-specific safety rules creating barriers to industry. Rail companies should take advantage of the increased flexibility to organize their businesses and processes in the best way to achieve the two priorities of business and safety.

Nevertheless, with increased freedom comes greater responsibility. As rule-makers are encouraged to scale back the number of rules and their detailed prescription, so rail companies need to assume decision-making responsibility for themselves, the more so as they are best placed to really understand the risks created by their activities. These decisions will sometimes be difficult, require more active communication across the industry and occasionally mean that performance or business goals are delayed or compromised. But taking these decisions proactively and responsibly are the price of more flexible and less intrusive regulation.

Safety responsibility at the heart of the organisation

In order that decisions concerning the twin priorities of business and safety are taken in a balanced way, and that any conflicts between them are resolved responsibly, they need to be taken at the heart of an organisation. This means that the senior team in an organisation need to feel that safety is their personal responsibility. Certainly, a

strong safety culture (doing things safely is rooted in the way the business works) needs commitment and leadership from the top of the organisation. Pressured and hard-working operational staff will know from their everyday work if performance goals are prized above safety ones, and will behave accordingly.

The senior team, including the chief executive / executive director, chief operating officer and chief financial officer, will need to understand, monitor and control the key risks of their operations, clear in the understanding that these are requirements of their permission to operate, via their safety certificate or safety authorisation. What these risks are will differ from one company to another, but broadly, management of these risks will include proper use of risk assessment, staff competence, interfaces with others and the responsibilities of others, contracts and maintenance.

What does an RU's safety certificate or an IM's safety authorization tell you?
An applicant for a safety certificate/authorisation (i.e. the railway undertaking, infrastructure manager or entity in charge of maintenance) has to demonstrate that it has the ability to identify, assess and manage risks which arise both from its own activities and those created by others in the course of its own activities.

The NSA will carry out a 'system level assessment' to understand whether the applicant is capable of operating safely and reach a view on whether documentation submitted by the applicant is adequate to form a judgement on the whole SMS; if not, it will request supplementary information. The NSA will not necessarily test fully the effectiveness of processes set out in support documentation before awarding a safety certificate or authorization, instead choosing to follow-up any issues through its supervision.

Effectively, the award of a safety certificate or authorisation is the beginning of an ongoing supervision relationship with the NSA – it forms the basis for the NSA's supervision plan. It does not provide a guarantee that the applicant will always operate safely, it does not confer approval of all the applicants operating procedures and it does not mean that the contents of the application should not change as the underlying risks of the operation changes. The safety management system submitted as part of the application for a certificate or authorization provides only a theoretical view, which then needs to be verified during the applicant's operations. In addition to this, ensuring safe operations requires a dynamic and ongoing control: supervision and monitoring.

SUPPLIERS - KEEPERS, ENTITIES IN CHARGE OF MAINTENANCE, SUBCONTRACTORS AND MANUFACTURERS
Suppliers support every aspect of railway operations – railway undertakings, infrastructure managers and entities in charge of maintenance, for the most part, cannot operate without them. Entities in charge of maintenance are also suppliers for railway undertakings and keepers. These suppliers have their own responsibilities, including safety requirements contained in other legislation (see The types and sources of responsibilities) and commercial customer expectations. In order to understand the boundaries of these responsibilities, it is important to apply the principle that responsibility for controlling risks, should sit with those with the greatest opportunity to control them.

Nevertheless, those with System responsibility under the Safety Directive cannot entirely satisfy their responsibilities to manage the risks created by their operations, by delegating those operations through contracts with others. By creating an interface, the railway undertaking, infrastructure manager or entity in charge of maintenance has also created obligations to monitor and manage that interface. This will involve;

- Selecting the right contractors.
- Managing contract performance and the quality of the outputs or deliverables of the contract;
- Understanding and managing the safety implications of commercial pressures;
- Ensuring that each party receives the necessary information and feedback to support their own obligations, including managing intellectual property rights and agreements ;

- Getting the specifications right, both for the time of delivery of the contract and in the future as needs change.

Essentially, railway undertakings, infrastructure managers and entities in charge of maintenance will need to be competent to ensure that the contracts they enter into provide for these things.

NATIONAL SAFETY AUTHORITIES (''NSAS'')

As explained above (Why regulation adds value), a liberalized market requires effective and independent regulation. Without the safety regulation provided by National safety authorities, safety performance in rail companies and the sector as a whole would be likely to deteriorate. This would eventually become unacceptable to the public and the conceptual ''authority'' to operate granted by society would be withdrawn.

National safety authorities provide a vital and unique role within the industry. They have specific statutory responsibilities set out at European and, usually, national level. They are non-commercial and, ideally, non-political, and in a position to have oversight of the entire sector, including the interfaces between actors and best and worst practices.

In the context of the national and European rail sector, NSAs need to understand and contribute to the overarching goals of more and better quality rail services and should themselves be incentivized accordingly.

The principles of good regulation and NSAs

NSAs should be held responsible for working in accordance with the principles of good public authority. These are set out in the CSM Conformity Assessment and further developed in the CSM Supervision, and are also often included in national legislation. In any event, they should inform every aspect of how an NSA is organized and operates, and the decisions they take;

- Proportionality in applying legislation and securing compliance;
- Consistency of approach;
- Targeting of enforcement action and setting priorities for supervision activities;
- Resources effectively applied by the NSA;
- Transparency about how the NSA operates and what those regulated may expect;
- Accountability for the NSA's decisions or actions;
- Co-operation with equivalent Competent Authorities such as Labour Inspectorates

Adding value and making a difference

Given that primary responsibility for controlling operational risks is given to railway undertakings and infrastructure managers , what is the role of an NSA and how can they add value to the sector? In other words, it is useful to understand how outcomes might differ if the NSA did not exist or did not do particular activities. For example, an effective SMS requires that railway companies monitor their activities and check compliance with various standards and rules. Given that it is not realistic for NSAs to have enough staff to allow them the same amount of access to operations as the railway companies, what added value is there in NSAs trying to duplicate this compliance checking? Similarly, if the NSA is assuming tasks that could be done better by the sector, it is possible that monitoring by the sector would be better if the NSA were not duplicating or displacing this activity. The NSA should look for other ways to gain assurance that this checking is being done adequately.

On the other hand, as stated above, NSAs do occupy a unique position within the industry. They should make best use of their objective, external view of companies, to understand and supervise the potential for accidents. For example, best practice would be for NSAs to understand and supervise the potential for the types of catastrophic accidents that can occur in complex industries, where a variety of causes at different levels of an organisation can contribute to the eventual failure.

Given the importance and complexity of managing interface risks (SUPPLIERS - KEEPERS, ENTITIES IN CHARGE OF MAINTENANCE, SUBCONTRACTORS AND MANUFACTURERS), NSAs play a key role in supervising across these interfaces and identifying problems.

NSAs can add value by understanding existing liability regimes and commercial arrangements surrounding projects. In particular, where there may be an imbalance of economic power capable of suppressing information exchange or an appropriate distribution of contractual responsibility and risk, such as large monopoly manufacturers, designers or keepers. NSAs may need to engage with the RU to ensure that the RU is able to insist upon the contract terms it needs in order to fulfill its responsibilities.

NSAs are not subject to commercial pressures, or profit motives, in the way that railway companies are. NSAs should contribute to the overarching goals of the industry, so that NSA policies should not unnecessarily compromise the business and customer goals of the sector. Nevertheless, NSAs cannot be made responsible for commercial success, or at least this goal should not be allowed to conflict with their primarily safety goals.

NSAs should have a clear focus on safety outcomes of the industry and how their regulatory activities can influence them. Regulation needs to be robust and effective, but should not distort or distract railway companies from their businesses and the balance of risk management or responsibility. NSAs should take decisions that best contribute to improvement of safety outcomes, over the short, mid and longer term. Sometimes this will require a decision not to take any action, and NSAs need to be confident enough to do this when necessary and justified. For example, where the railway company is proposing a reasonable solution or where the rail company needs to be made fully responsible for taking the right decision itself.

NSA tools and methods: leadership
Leadership can be defined as influencing others to achieve a common goal. In this context, ''others'' means the sector, but also ministries, policy-makers and customers, where these can have an impact on safety outcomes.

There are many different methods and tools that can be used to effectively influence others, and these are discussed below. Overall, NSAs need to be ambassadors for best practice and safety culture, identifying and creating other ambassadors within their sectors, who have the potential to influence those around them.

NSAs should also require, facilitate, promote and demonstrate good communication – between actors, with other NSAs and with sector representative bodies.

NSAs are also in a good position to collect, commission and disseminate research into new methods and technologies.

A key method of influencing others is most obviously, ''hard'' enforcement, meaning actions that impose penalties or restrictions on operations. Adequate enforcement powers, and effective use of those powers, in accordance with the principles of good regulation , are essential for any regulator.   Having these powers underpins all the other influencing methods available to an NSA and also to a large extent, forms the foundation of open and trusted relations with the sector. This is why reasoned and published enforcement management models are so useful.

To complement these powers, NSAs need to employ all the methods available to them in order to influence others;

- Collaboration;
- Education;
- Guidance;
- Understanding and manipulating economic pressures and incentives;

- Understanding the impact of commercial and civil liability, in terms of payments or compensation under contracts or national law;
- Understanding and shaping value systems and culture.

As previously discussed (Encouraging the right behaviors), the system should be designed to make it as easy as possible to do the right thing. NSAs should be aware of barriers to establishing good safety culture and compliance. These are most obviously created by conflicting incentives, but can also include overly complex rules or a lack of awareness, training or skills.

NSA behaviours and relationships
NSAs need to establish sound relationships with those they supervise, so that open communication and fault sharing is encouraged. This is where focusing on establishing robust safety culture within the industry can benefit NSAs. Organisations that understand their safety responsibilities, and are motivated to proactively fulfill them, will seek out the help and advice of NSAs they trust.

This is, however, a delicate balance to strike. NSAs need to avoid relationships that compromise the roles of regulator / regulatee, so that challenging decisions and discussions are possible, without fear of upsetting strong personal relationships. Similarly, although trust is important, NSAs need to be willing and competent to challenge information provided by those they supervise. Whilst avoiding the risks of 'regulatory capture', a balance between enforced (hard) and negotiated (soft) styles of regulation has the greatest potential for achieving good safety performance.

Competence
NSAs need to ensure they have the right competences, or can call on the right competences, to fulfill their role. In the current market, all actors are struggling to find and retain railway experts. As stated above, NSAs need to be capable of understanding the industry they supervise and challenging the information they are given.

But because NSAs can add greater value by requiring and supervising the systems put in place by railway companies, rather than simply duplicating the checks carried out by railway companies as part of those systems, they also require other skills. Knowledge, skills and experience in management systems, risk management and auditing are also essential in order for an NSA to carry out their tasks. NSAs can also make good use of trainers and educators, whether they are in-house or provided by contractors.

To be clear, NSAs cannot be responsible for managing the risks of the industry, or taking safety related decisions, or for individual safety incidents and accidents.

MEMBER STATES
The Safety Directive requires that Member States ensure that safety measures take into account the need for a system-based approach. This requires a holistic understanding of the safety regulatory framework, ensuring that non-railway national legislation is aligned, liability regimes do not conflict with appropriate safety responsibilities and that authorities have sufficient objectives, resources and independence to support their roles as designed.

More specifically, Member States have a responsibility to maintain and where reasonably practicable, improve railway safety, ensure the Common Safety Targets are met and set and review the national regulatory framework, including national rules and codes of practice (non-binding rules), within the overarching European framework. In doing so, they need to set the right incentives, but also ensure that their own decisions and messages are consistent with the framework they have created.

THE EUROPEAN COMMISSION AND THE EUROPEAN RAILWAY AGENCY

The European Commission is responsible for initiating the European legislative process, for implementing legislative instruments and amending non-essential elements of that legislation. They are supported in this work by the European Railway Agency, an Agency of the European Commission.

The objective of the Agency is to contribute, on technical matters, to the implementation of the Community legislation aimed at improving the competitive position of the railway sector. In practice, this means providing advice, recommendations and opinions to the Commission on technical matters.

In order to provide robust, evidence-based and costed proposals, the Agency monitors implementation and performance of relevant legislation and related activity. This includes scoping, gathering and analyzing data, organizing research, conducting visits and assessments, assessing the impact of legislation before and after its implementation.

The Agency provides certain functions and tools that can only be provided at a European level. These include provision of central European information (databases) and facilitation of communication and cooperation at a European level.

Finally, the Agency supports implementation of the Directives , and the legislative measures originating from those Directives, by providing guidance, training and dissemination to Member States, national authorities and actors in the European railway sector.