

EIM Working Group Safety

Report

Benchmark on Safety management system

September 2026

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Purpose and objective

The objective of the underlying benchmark is to gain a view of how different organisations manage safety through their Safety Management System (SMS), in their role as infrastructure managers.

The purpose is therefore to draw on each other's experience, in order to improve SMS performance, safety levels, and efficiency across the participating organisations.

Moreover, the results are intended to support the arguments to be developed in the forthcoming work on updating the Common Safety Methods (CSMs).

Plan and execution of the benchmark

The starting point for this work was a discussion within the EIM Working Group Safety to identify a workable approach for carrying out such a benchmark. One of the challenges is to keep a balance between the general overall picture of each member's SMS and the details of different element of the SMS.

The approach adopted takes the common legislation as its starting point at an overall level, following a top-down logic.

In this context, the benchmark will be carried out through two parallel workflows:

- The first workflow involves identifying strategic areas and agreeing on a limited set of high-level questions, to be answered by all infrastructure managers. This is intended to capture differences and similarities in the structure, scope, overall content, and responsibilities of each SMS. This report reflects that part.
- The second workflow involves organising separate meetings, in addition to regular EIM SAF WG meetings, in which each organisation presents an overview of its SMS. These sessions (remaining at an overall level) aim to provide a deeper understanding of how different organisations approach their SMS as a whole, as well as its individual functions and elements.

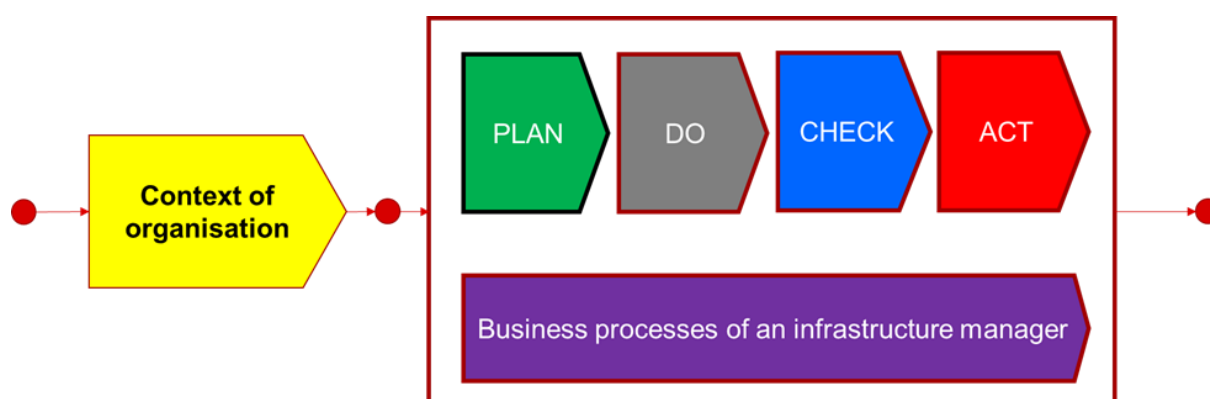
Should it be considered appropriate, more detailed benchmarking may follow once the results of both workflows are available.

Legislation and top-down approach - starting point of the benchmark

As mentioned in the introduction, the EIM WG SAF took the starting point in the legislation for an infrastructure manager at an overall level.

In particular, a safety management system could be used to manage safety at any organisation's *business*, which, in the context of EIM, is to act and carry out the tasks of an infrastructure manager. In the rest of the document, the business is framed as *the business process(es)*, which should include all the tasks that an infrastructure manager is expected to carry out according to the definition of the role as an infrastructure manager¹.

The safety management system for an infrastructure manager is based on the same structure as ISO standards for ISO harmonised structure, as shown by the picture below.



The picture shows an overall picture of the ISO High Structure when a safety management system is used to control different values in the business

¹ 'infrastructure manager' as defined in point (2) of Article 3 of Directive 2012/34/EU of the European Parliament and of the Council; [Railway Safety Directive (EU)2016/798 Article 3(2)]

'infrastructure manager' anybody or firm responsible in particular for establishing, managing and maintaining railway infrastructure, including traffic management and control-command and signalling; the functions of the infrastructure manager on a network or part of a network may be allocated to different bodies or firms; [SERA directive 2012/34/EU Article 3(2)]

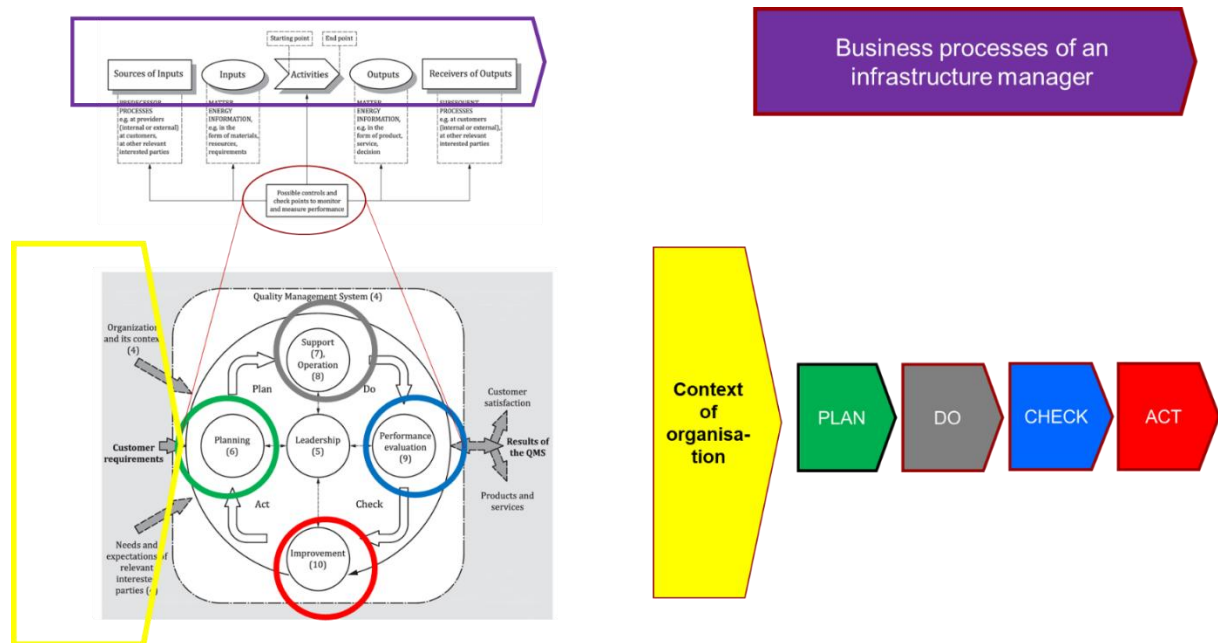
Both a quality management system and a safety management system are characterised by the same function and use, yet with different focuses:

- For instance, in the quality management system, the focus, among others, could be to avoid that trains are delayed.
- For the safety management system (in the IM case), the focus, among others, is to avoid railway accidents, incidents or fatalities.

The PDCA-cycle should be applied on the business processes. The requirements for an SMS/PDCA-cycle are detailed in the Regulation (EU) 2018/762.

To the left, the overall picture illustrates an organisation's business process and PDCA-process from the ISO 9001 standard. To the right the overall picture illustrates the same concept but for the Regulation of (EU)2018/762.

It is assumed that the picture can also be used as a starting point for the top-down approach in order to understand more details from each organisation.



To the left, there is a schematic representation of the elements of a quality management system where the PDCA-cycle should be applied on the business process(es). To the right, the equality of the safety management system is pictured. The function of the two management systems is the same but with different aspects.

For each IM there is a need to include all the tasks of the role as an infrastructure manager in the business process(es) because safety is not better than the weakest link.

IMs are also required to design all the SMS elements, for the specific IM, which should be applied on the specific IM's business process(es). The reason is because (safety) risk level is affected by many safety aspects which are required to be taken into account on the basis of the (EU)2018/762.

Organisations participating in the benchmark work

The following organisations are participating in the benchmark work:

- ProRail
- Trafikverket
- SNCF Réseau
- PLK
- Bane NOR
- Infrabel
- ADIF

Benchmark results

About integration of SMS into other management systems

According to the submitted answers, IMs express they have both integrated and not integrated SMS. In addition, a closer look shows that “integration” is interpreted differently across various organisations.

All organisations have procedures/routines/rules/technical systems for carrying out their tasks as an IM in order to give the customer what they want/need. IMs tasks involve, for instance: planning capacity, maintaining the infrastructure, carrying out projects to design/redesign infrastructure or direct trains on the infrastructure. Some of the procedures/routines/rules/technical systems are there to ensure the safety level, the so called risk control measures, and to ensure safe deliveries of an IM. Some IMs integrate the safety risk control measures and control measures into those procedures/routines/rules/technical systems for other purposes than safety. This process is what some IMs consider the integration of the SMS.

All organisations have procedures for carrying out their tasks according to requirements in (EU)2018/762 (CSM SMS) in order to “prove” the control of the safety level and the “right safety level” for IM tasks in relation to the IM’s specific safety objective. Tasks are for example: planning, implementing, collecting information of the use, monitoring, reviewing and, if needed, adjusting the safety risk control measures. Some IMs integrate the procedures needed for fulfilling the tasks of (EU)2018/762 with procedures needed for fulfilling the tasks of ISO 9001, ISO 14001, etc. since requirements are similar. This is what some IMs consider integration of the SMS.

Some organisations have integrated their SMS into other management systems, such as quality management or maintenance. The impact this choice has on matters like effectiveness and workload could be of interest for future study.

About PDCA and business process flows

All organisations have a PDCA flow. However, it is difficult to find out and understand how the structure of PDCA processes are applied in relation to the business process, as well as how these various PDCA-processes function on different levels of the organisation (operational, tactical, strategic). See also the perspective of SMS integration. This point needs to be further explored and discussed, especially during the presentations.

About responsibility and accountability

The majority of organisations have centralised the responsibility of providing the procedures necessary for fulfilling the requirements in (EU)2018/762; the most common structure consists of a Safety director, supervising a safety office, and a SMS specialist team or similar.

Most organisations have put the responsibility high in the organisation when it comes to ensuring the safety level as a whole and in parts of the business. At the same time, some organisations have put the responsibility on one unit, while others on several directors of a business unit/a process owner.

Most organisations have decentralised the responsibility of carrying out the business procedures and delivery to customer: the responsibility to ensure it is done safely is mainly put at more than one. Firstly, the persons who are carrying out the business, secondly the responsible to regulate the safety level in part and finally the responsible to ensure the safety as a whole.

About “easy to use”, finding procedures/risk control measures etc.

All organisations seem to have a systematic storage of documents/risk control measures and systematically present documents/risk control measures to the users. Some organisations complement with competence requirements, education etc. However, the distribution to the user seems to be different, therefore, it is difficult to understand the solution on how to ensure that the user finds and uses the “right” document or the “right” risk control measures for any given task. This dynamic deserves additional discussions to be held during cooperative presentations.

About how to manage conflicts between safety and “business “

In cases of conflicts between safety and business activities, all organisations have an overall policy, or even the SMS itself, which give some directions on how to solve them. Most organisations have a Zero vision/Safety First policy, with some solutions focusing on working on safety culture. Others have a combination of measures but more details on how it is working in practice should be explored during the presentations.

Detailed results of the questionnaire

Questionnaire

EIM Working Group Safety agreed that the wording in the questionnaire should be considered as the following:

The wording 'business process' below is considered to include all tasks which are necessary to carry out the role of an infrastructure manager². The flow is considered to be from the need of the customer to the delivery of the infrastructure manager.

The wording PDCA-cycle below is considered to include all the SMS-elements³ which are necessary to carry out in order for the infrastructure manager to ensure the safety in the business of their organisation.

EIM Working Group Safety agreed on the following questions:

- 1) *Do you integrate your safety management systems into other management systems?*
 - a. *If yes, which ones?*
- 2) *If yes on question 1,*
 - a. *Are elements divided into separate PDCA-processes, e.g., one competence PDCA-process, one risk-PDCA-process, etc.*
- 3) *Who/what role is responsible for the tasks a, b, c and d?*
 - a. *Responsibility to design the PDCA-process*
 - b. *Responsibility to regulate the safety level of the business as a whole*
 - c. *Responsibility to regulate the safety in part of a business process*
 - d. *Responsibility to carry out the business safely*

Please support the answers with an overall organisational chart and point out where the responsibility is put.
- 4) *How does the safety organisation look like related to the safety management system?*
- 5) *How do you make sure that every requirement in CSM SMS is linked⁴ to a specific work task?*
- 6) *How does your company ensure the continuous adequacy and effectiveness of its internal regulations in daily operations?*
- 7) *How do end users find "the right" documented mandatory instructions, manuals, procedures, etc?*
- 8) *How are users introduced to safety instructions, manuals, procedures, etc. so they are easy to use/follow?*
- 9) *How does your organisation handle a conflict between safety (e.g. a mandatory safety rule) and business (e.g. speed or capacity)?*

² Infrastructure manager means anybody or firm responsible in particular for establishing, managing and maintaining railway infrastructure, including traffic management and control-command and signaling; the functions of the infrastructure manager on a network or part of a network may be allocated to different bodies or firms; [SERA directive 2012/34/EU Article 3(2)]

'infrastructure manager' means an infrastructure manager as defined in point (2) of Article 3 of Directive 2012/34/EU of the European Parliament and of the Council; [Railway Safety Directive (EU)2016/798 Article 3(2)]

³ SMS-elements are required according to requirements of a safety management system in (EU)2018/762

⁴ Requirements in CSM SMS (EU)2018/762 are implemented in the organisation's SMS. There is a chain of things within the company which arrives in a specific task. That link is asked for.

Answers to the questionnaire from each organisation

The answers to the questions from the organisations participating are documented in annexes. Please consult the following annexes for answers of the organisation respectively:

- Annex I ProRail
- Annex II Trafikverket
- Annex III SNCF Réseau
- Annex IV Bane NOR
- Annex V Infrabel
- Annex VI ADIF

Annex I – Pro-Rail

The wording ‘business process’ below is considered to include all tasks which are necessary to carry out the role of an infrastructure manager. The flow is considered to be from the need of the customer to the delivery of the infrastructure manager.

The wording PDCA-cycle below is considered to include all the SMS-elements which are necessary to be carried out in order for the infrastructure manager to ensure the safety in the business of their organisation.

1) Do you integrate your safety management systems into other management systems?

No, we do not. We apply different management systems for example. safety, environment, company risks, cybersecurity, compliance, health, resilience. However, some management systems are similar in structure (e.g. safety, cybersecurity, environment) and others have substantial overlap (e.g. safety and company risks). We believe there could be synergy advantages when applying a certain level of integration, but in practice integration appeared difficult to obtain (several initiatives failed).

a. If yes, which ones?

2) If yes on question 1,

a. Are elements divided into separate PDCA-processes, e.g., one competence PDCA-process, one risk-PDCA-process, etc.

3) Who/what role is responsible for the tasks a, b, c and d?

a. Responsibility to design the PDCA-process

Assuming this means ‘to design the structure of the SMS’ (and where appropriate apply PDCA), the responsibility for a compliant and effective SMS is with the director of the Safety department (reporting to the CEO).

b. Responsibility to regulate the safety level of the business as a whole

The director of the Safety department is responsible for setting and monitoring KPI values for each accident (and some incident) type acting as a reference/expectation for the safety level (in terms of number of accidents and amount of harm/FWI). They are not ‘target-values’ since ProRail applies the combined principle of ‘Standstill + ALARP’ as risk evaluation principle for each accident-type (in line with national railway safety policy). Each accident-type is assigned to a director of a business unit (where the main causes for failures lie) for control, improvement and monitoring. When the monitoring identifies negative deviations, the responsible director and the safety director intervene and cooperate with relevant business directors (those that participate in risk control) to obtain improvements.

c. Responsibility to regulate the safety in part of a business process

The director of the Safety department is responsible for providing the ProRail safety policy with general safety management requirements (16 top level SMS Corporate Procedures corresponding with the elements of the EU CSM SMS) that have to be implemented into compliant and safe procedures by the responsables of (after the transition) the business processes (before the transition: the business units also called clusters). In other words, the director of the Safety department has the 2nd line of defence (LoD) role to provide the safety policy to the 1st LoD responsables, and the 1st LoD responsables have to develop their own processes/procedures compliant with the 2nd LoD safety policy (and all other relevant

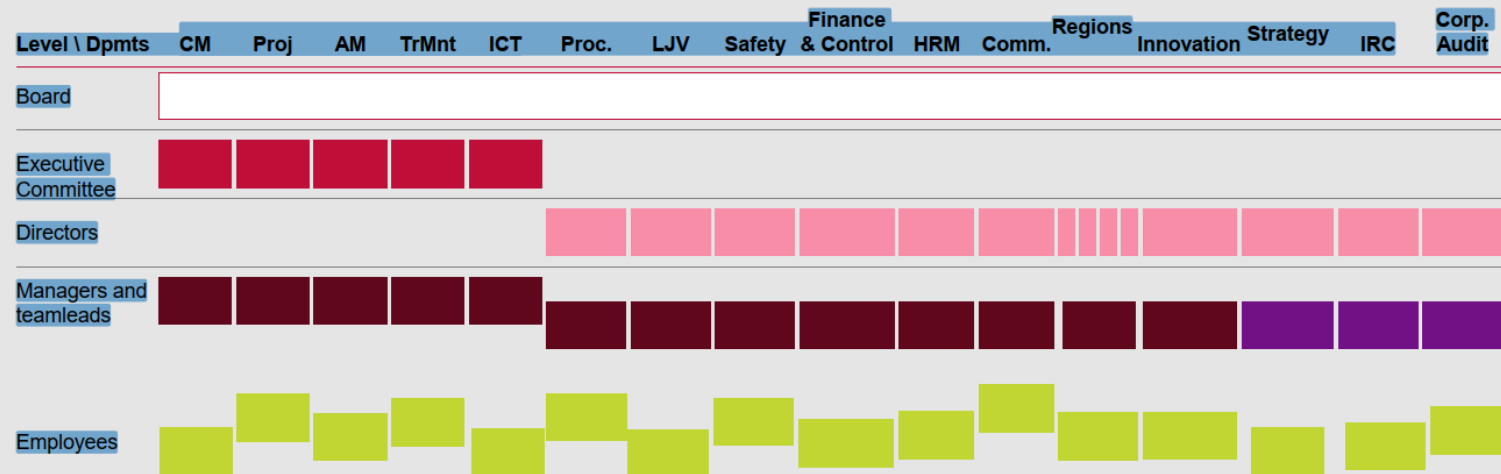
policies). Besides, the 2nd LoD has the responsibility to monitor/audit the 1st LoD executers (which have also themselves a responsibility to monitor/check their own execution).

d. Responsibility to carry out the business safely

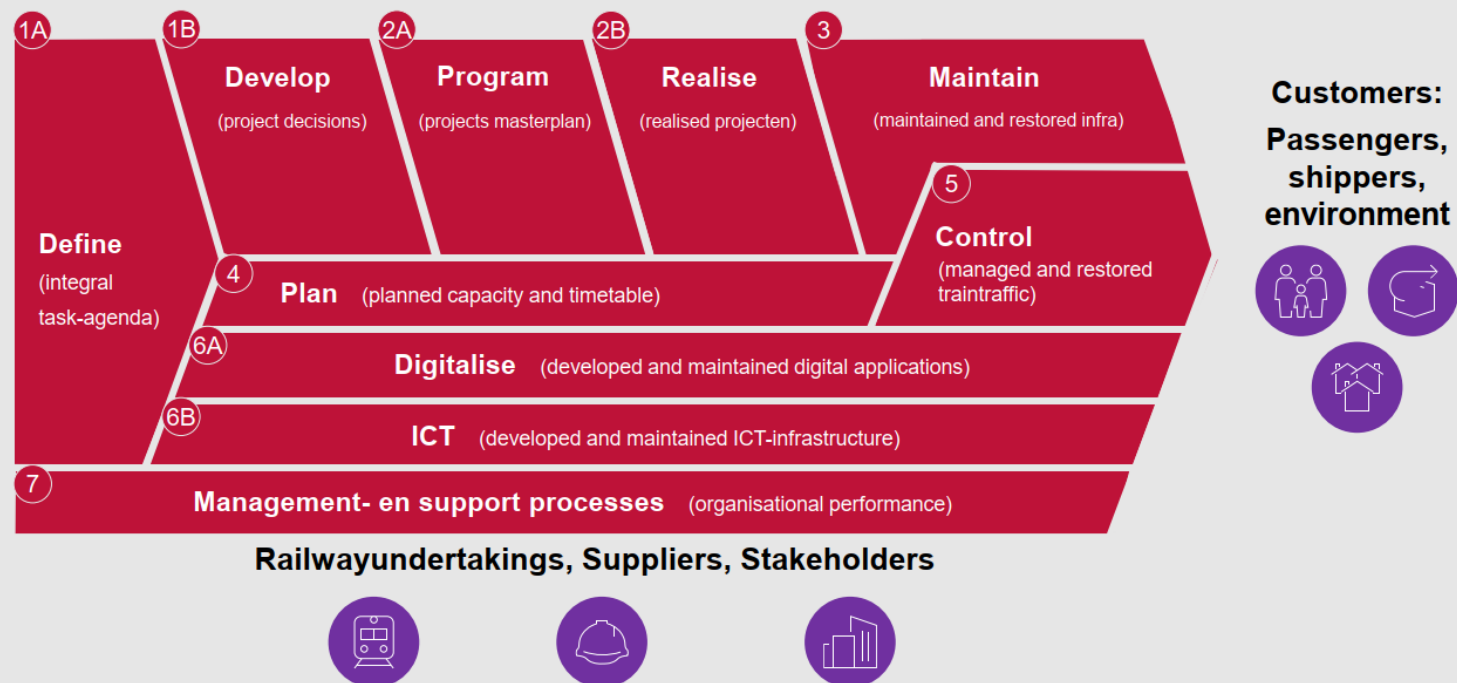
Up to a few years ago, the responsibility to carry out the business safety was with the director of the Business Unit where the main part of some business process was executed (e.g. Asset Management or Traffic Management or Construction & Building Projects, ...). But ProRail is in a transition to assigning the responsibility for safety (and any other domain) as an integral part of the output-responsibility of each of 7 primary Business Processes (that is: the role of the 'Business Process owner', although that role still will be assigned to a Business Unit director). They are 'first line responsible' for identifying, controlling and monitoring the risks related to their business process. We consider the monitoring of overall risk (see at b.) a 'second line responsibility'. In this new model the Business Units (also: clusters or departments) are responsible for providing competent resources/staff for the Business Processes (this responsibility for competent resources/staff is the same as before the transition).

Please support the answers with an overall organisational chart and point out where the responsibility is put.

Organisational departments and hierarchy



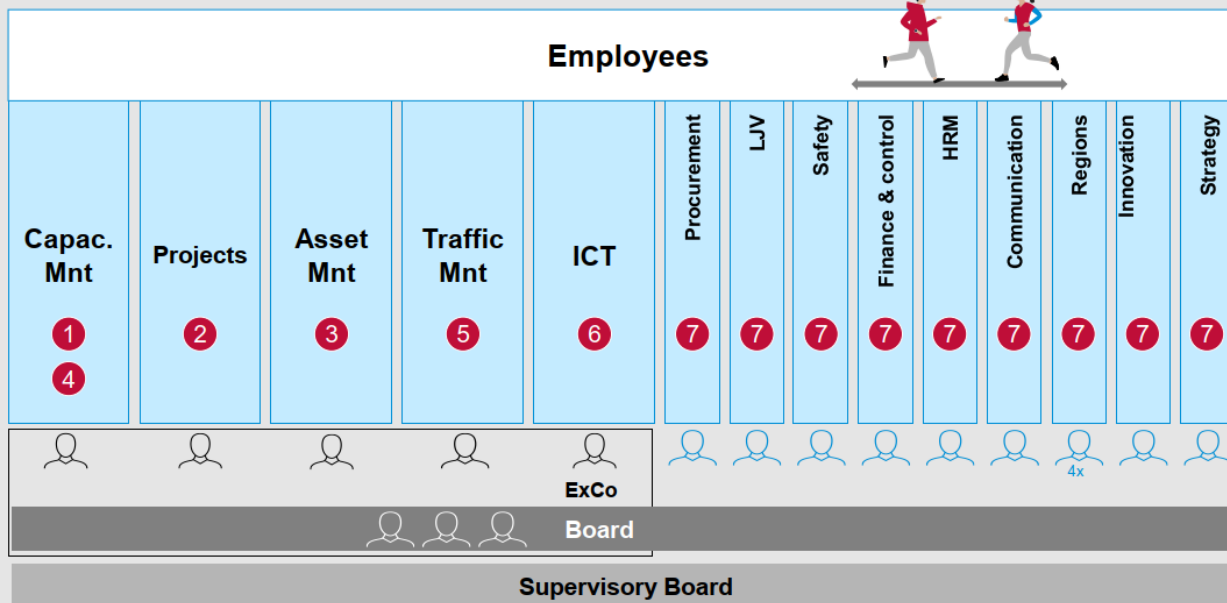
7 main Business Processes



2 The Business Processes interact through dedicated interfaces

2

Multidisciplinary steering for a business process is assigned to one director

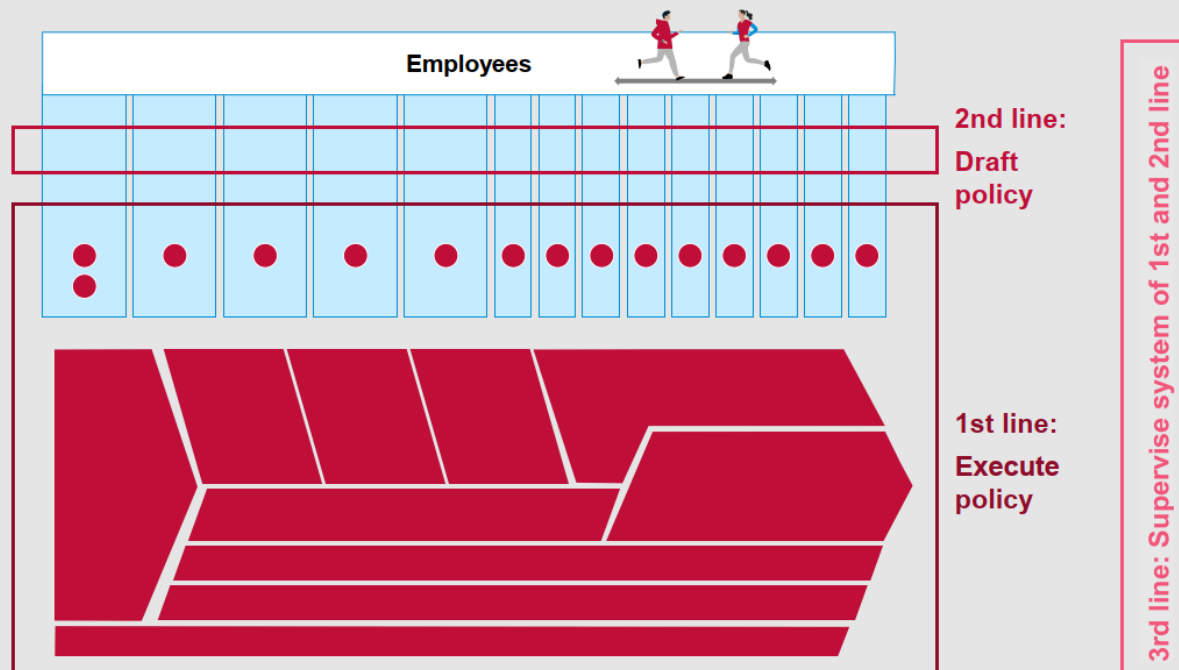


Responsible for business process

Management: Director in ExCo Director

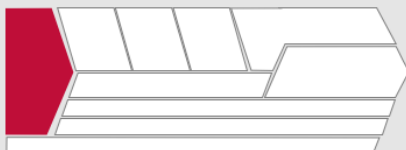
3

Every cluster has a 1st line role (execution) and a 2nd line role (policy)



Three types of meetings with own scope, purpose and members

Result-meetings



- Steering for adequate results within a business process

Coordination-meetings



- Steering for adequate interaction and transfer between business processes

Competence-meetings



- Steering for competent resources of a cluster

4) How does the safety organisation look like related to the safety management system?

The CEO is accountable (end-responsible) for the SMS. The director Safety is responsible for an adequate and compliant SMS (and thus for having a safety authorisation). The director Safety has a small staff of SMS advisors to coordinate a yearly PDCA of SMS process-improvements and coordinate NSA SMS audits and maintain the SMS Manual (overview and explanation of the ProRail SMS). Each of the 16 SMS Corporate Procedures has the role of CP-owner responsible for the adequate content and application of the CP by the executing business units. The role of CP-owner is assigned to the director or senior manager of the business unit/department where the main application of the CP lies. For other roles and responsibilities, see answer at Q3.

5) How do you make sure that every requirement in CSM SMS is linked to a specific work task?

For the structure of the SMS CP's and the related operational procedures (OP's) of the applicable business units or departments we apply the following 'rules' (described in the SMS Manual): each (group of) criterion of CSM SMS (so including CSM REA and CSM Monitoring) must be traceable to one or more requirements in some SMS CP, and each (group of) CP requirement must be traceable to a description (either a lower-level requirement or a task) in some OP. Besides, where the CSM SMS requires a direct result (e.g. a description of the context of the organisation) instead of a process or goal, the realisation of the product is explained in the SMS Manual. To provide evidence of this, one cross-reference table is established for the mapping of CSM criteria to CP requirements (which is also requested by our NSA for the safety authorisation audit) and a cross-reference table for each SMS CP mapping to the implementing OP's.

6) How does your company ensure the continuous adequacy and effectiveness of its internal regulations in daily operations?

ProRail applies the following principle (not limited to safety): we apply the regulations, or (when the regulations are not adequate), we modify/improve them. Reasons for improving regulations could be proactive: employee feedback, learning from elsewhere, internal inspections and audits, or reactive: incident- or accident-investigations, external audits. Employee behaviour is part of safety culture programs, the other elements are part of 1st line and 2nd line processes and procedures.

7) How do end users find "the right" documented mandatory instructions, manuals, procedures, etc?

Current practice is that each Business Unit (or still smaller each department) applies their own rules for where information can be found and how that is structured. New employees learn this in practice from their colleagues, not from some document/guide. With (almost) all information digitalised, version control is nowadays rather good, compared to some years ago when printed documents were normal use.

8) How are users introduced to safety instructions, manuals, procedures, etc. so they are easy to use/follow?

This starts with involving (representatives of) the users/executors of the documents with the drafting of it. Although the involvement of (representatives of) users/executors is a

requirement in the SMS CP for document/information management, this is sometimes hard to achieve. When certain existing documentation is necessary for performing a safety-related tasks, this should be identified as part of the competence requirements for that task, and if it is, that will be part of an appropriate form of learning (training, instructions, ...).

9) How does your organisation handle a conflict between safety (e.g. a mandatory safety rule) and business (e.g. speed or capacity)?

Although not described as a rule the ProRail SMS applies the following 3-tier approach of process-management

1. The happy flow: describe the process designed for safe results. When the happy flow is followed, no conflicts arise.
2. The unhappy flow: describe foreseeable deviations from the happy flow including the preconditions to remain acceptably safe (e.g. boundary values for the operational parameter (e.g. for cracks in rail) or compensating measures (e.g. speed limit))
3. Ad hoc risk evaluation for not foreseen conflicts or deviations. When stand-still cannot be achieved with specific / ad hoc measures, then a predefined absolute value for individual risk (of dying) determines if the deviation (impairing safety) is allowed or not. When such a conflict/deviation tends to become structural, it must be described as part of the unhappy flow at 2.

Annex II –Trafikverket

Trafikverket General facts

5



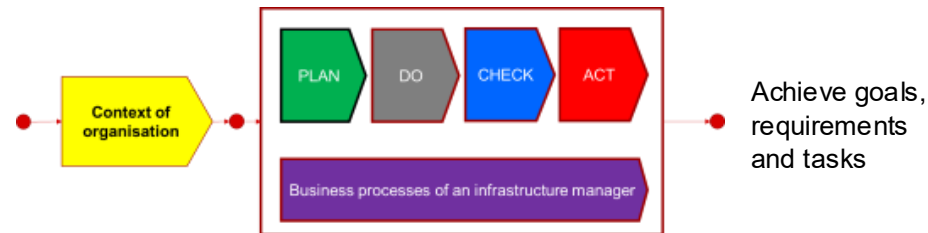
Basic facts about the Swedish Transport Administration's governance

- Basic provisions for the Swedish Transport Administration's operations and organization are based on the *Authority Ordinance (2007:515)* and the *Ordinance (2010:185) with instructions for the Swedish Transport Administration*.
- *Ordinance (2007:603) on internal governance and control* specifies how internal governance and control should be designed through: risk analysis, control measures, follow-up, documentation, responsibility for the internal environment and corruption prevention work.
- The Swedish Transport Administration applies an integrated management system designed according to the fundamental principle behind ISO's high level structure. This means that the requirements from all statutes and adopted ISO standards are collected in a structured way and are available in the description of the work steps involved. With this principle as support, we can comply with all statutes (national and at EU level) and standards.



The Swedish Transport Administration integrated management system applies to :

- The Swedish Government *Authority Ordinance (2007:515) and the Ordinance (2010:185) with instructions for the Swedish Transport Administration.*
- The Swedish Government *Ordinance on Internal Governance and Control (2007:603)*
 - Based on the international standard *The COSO framework (Committee of Sponsoring Organizations of the Treadway Commission) for internal governance and control and risk management.*
- The fundamental principle behind *ISO's high-level structure*, the PDCA (Plan–Do–Check–Act) process. See Figure below.





Risk management

The Swedish Transport Administration's risk management framework is designed based on:

- Requirements in accordance with Ordinance (2007:603) on internal governance and control
 - Based on the international standard COSO -ERM
- Requirements in accordance with safety management system (CSM SMS where risk management is integrated) and other EU requirements (e.g. CSM Risk evaluation and assessment).
- ISO standard
 - SS-ISO 31001 (risk management)
 - SS-EN ISO 22301 (security and resilience - business continuity management system)
 - SS-EN ISO 9001 (quality management system)
 - SS-EN ISO/IEC 27001 (information security)
 - SS-ISO 39001 (road traffic safety)



Question 1

Do you integrate your safety management systems into other management systems?

a. If yes, which ones?

Answer 1

Yes, we apply the Swedish Governments Ordinance (2007:603) on internal governance and control, which is management system based on COSO.

We also integrate the following ISO standards:

- ISO 14001 Environmental management system
- ISO 55001 – Asset management
- SS-ISO 31001 (risk management)
- SS-EN ISO 9001 (quality)
- SS-EN ISO/IEC 27001 (information security)
- SS-ISO 39001 (road traffic safety)



Question 2

If yes on question 1,

- a. Are elements divided into separate PDCA-processes, e.g., one competence PDCA-process, one risk-PDCA-process, etc.

Answer 2

No, the management process Leading and managing is the overall management and control process for the entire organization and all operations and is structured as a PDCA process

Connected to the management process are several support processes, such as competence, information and communication, financial administration, management of IT solutions etc.

Documents are not integrated within a high -level structure nor by SMS -functions in a PDCA -process. Some documents are outside the PDCA -process. Documents are divided in different SMS -elements, e.g. there are separate documents for HOF, risk management, competence management, etc.

Answer 3

Question 3

Who/what role is responsible for the tasks a, b, c and d?

- a. Responsibility to design the PDCA -process
- b. Responsibility to regulate the safety level of the business as a whole
- c. Responsibility to regulate the safety in part of a business process
- d. Responsibility to carry out the business safely

Please support the answers with an overall organisational chart and point out where the responsibility is put.

- a. Central Function Ekonomi: Support the Director General's Office in designing the PDCA process and writing procedures

Area of responsibility Planning (AoR): The role of assisting in implementing CSM SMS requirements in the PDCA process, Management process Leading and managing.

- b. AoR Planning: The role of responsible for following up on the Swedish Transport Administration's safety objective and supporting the Director General's Office in presenting the results for the risk level as a whole at the management review.

- c. Process owner: Overall demands is described in Management process Leading and managing.

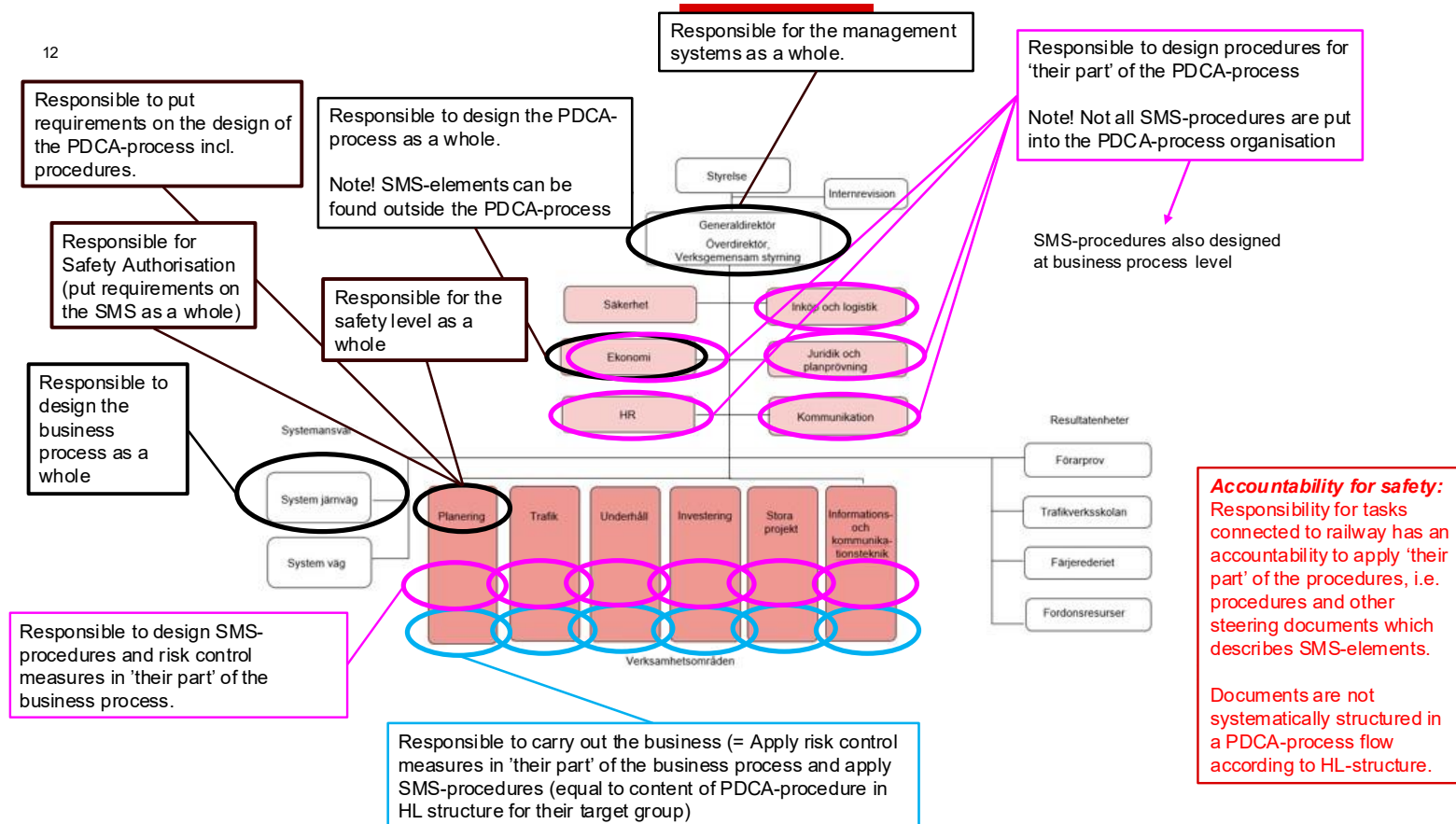
AoR Planning: Supports the process owner in expertise knowledge of demands.

- d. Managers/consultants/entrepreneurs, in the role of delivering both safe and efficient according to 'its' partial flow of the business process, in the role of delivering the business both safe and efficient

Color code in the organizational chart (see the next page):

- Black – designing safety level or SMS at a Trafikverket level as a whole
- Pink – designing safety at a process level
- Blue – deliverables from a business process at an operational level

12





Question 4

How does the safety organisation look like related to the safety management system?

Answer 4

See answers to question 3.

Responsibility for safety is integrated into the Swedish Transport Administration's management and control and distributed to managers according to the work rules for the various organizational units/central functions.

Each business unit has also a safety manager that support the business managers.



Question 5

How do you make sure that every requirement in CSM SMS is linked to a specific work task?

Answer 5

The steering documents for SMS are integrated in the management system. Trafikverket's management system is a document system where documents are connected to a process or an organisation unit but not on the level of the activities in the processes. Therefore you cannot see the steering documents linked to a specific task or procedure.

Trafikverket has one place for the documents and one place for the processes and the activities in the processes. Trafikverket haven't either fully described the operative perspective of handling the infrastructure manager tasks in processes.

Trafikverket is undertaking an improvement work on a new process map to be more efficient and effective in fulfilling the SMS requirements.

Trafikverket is also improving the link between risk – risk control measures - indicators and safety objective.



Question 6

How does your company ensure the continuous adequacy and effectiveness of its internal regulations in daily operations?

Answer 6

Trafikverket is very silo-oriented. Every business unit is monitoring the infrastructure manager tasks on its own in their systems. Trafikverkets is improving the monitoring as a whole and the link between risk – risk control measures - indicators and safety objective at every level of the organisation and between units.

In order to achieve coordinated results an improvement work is ongoing to create a coordinated risk map. The data in the risk map and for the risk control measures should come from the coordinated source/sources irrespectively of organisational unit.

To purpose is to create a better organisational learning.



Question 7

How do end users find “the right” documented mandatory instructions, manuals, procedures, etc?

Answer 7

Trafikverket has infrastructure regulations specific for the end users (supplier, contractor, partner) referred to in the present contract. The contract is written by the project manager and their procurement officer and are following foundational standard contracts AB04/ABT06. Those documents are not in the documentcenter but in another place called “PUBEN” that the end users can reach.

Other steering documents are presented in Dokumentcenter.

Trafikverket is undertaking an improvement work to be more efficient and effective in fulfilling the SMS requirements.



Question 7

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Trafikverket has infrastructure regulations specific for the end users (supplier, contractor, partner) referred to in the present contract. The contract is written by the project manager and their procurement officer and are following foundational standard contracts AB04/ABT06. Those documents are not in the documentcenter but in another place called “PUBEN” that the end users can reach.

Other steering documents are presented in Dokumentcenter.

Trafikverket is undertaking an improvement work to be more efficient and effective in fulfilling the SMS requirements.



Question 8

How are users introduced to safety instructions, manuals, procedures, etc. so they are easy to use/follow?

Answer 8

Contractors/partners: Trafikverket have routines for starting up the contractors (start meeting), and then an established agenda for every construction meeting. Control is carrying out consistently through control program, checking the work preparation and so on.

There are written procedures how to inform and educate users.



Question 9

How does your organisation handle a conflict between safety (e.g. a mandatory safety rule) and business (e.g. speed or capacity)?

Answer 9

There is a known fact that the investment/building unit of Trafikverket have the objective: Time - Cost – Content with the most pressure on the cost and the time. It's a risk that business comes before safety if a conflict occurs.

Trafikverket has a documented policy “safety first” which everybody in the company should follow.

In our risk framework we handle the conflict with the impact categories for risk decisions, ranked in three groups:

1. safety and health, environment and law and compliance
2. business function and trust and brand
3. economy, time, internal efficiency and productivity.

Annex III SNCF Réseau

**1) Do you integrate your safety management systems into other management systems? a.
If yes, which ones?**

No, and there is no other management system other than safety management system.

3) Who/what role is responsible for the tasks a, b, c and d?

a. Responsibility to design the PDCA-process

The head of safety as part of the design and implementation of SMS.

b. Responsibility to regulate the safety level of the business as a whole

The head of safety who is in charge to define and ensure the implementation of SNCF Réseau's safety policy and to ensure the implementation of orientations and the achievements of the safety objectives, as part of his general remit for setting requirements, steering and supervision.

c. Responsibility to regulate the safety in part of a business process

Each head of department is in charge of insuring safety on his/her perimeter of responsibility, which is not necessarily a business process (the responsibility of implementation of a business process may be divided between several departments).

d. Responsibility to carry out the business safely

The head of safety is in charge to ensure the implementation and continuous improvement of the SMS.

Please support the answers with an overall organisational chart and point out where the responsibility is put.



4) How does the safety organisation look like related to the safety management system?

SNCF Réseau organization includes two layers of safety departments, a national layer with the DG Sécurité that steers and supervises safety in general and a regional layer with safety divisions in the inter-regional DGs (in yellow in the organization charge) in charge of day to day safety for the operations.

5) How do you make sure that every requirement in CSM SMS is linked3 to a specific work task?

EPSF asked us to compare CSM SMS with our SMS to insure that all the elements were included.

6) How does your company ensure the continuous adequacy and effectiveness of its internal regulations in daily operations?

We do audits regarding processes or part of processus to ensure adequacy and efficiency. Moreover, the risks management, analysis of indicators and return of experience after safety events should enable to ensure adequacy and effectiveness.

7) How do end users find “the right” documented mandatory instructions, manuals, procedures, etc?

There is a collection of documents defined for operational staff

8) How are users introduced to safety instructions, manuals, procedures, etc. so they are easy to use/follow?

In the phase of conception of documents, there must be a consultation of users (managers in fact) to collect their remarks regarding comprehension and applicability of the documents. Once received the final document, managers are in charge of explaining it to the staff if necessary.

9) How does your organisation handle a conflict between safety (e.g. a mandatory safety rule) and business (e.g. speed or capacity)?

Safety first! It is in SNCF Réseau’s culture and well applied, with sometimes consequences on works with delays.

Annex IV Bane NOR

1) Do you integrate your safety management systems into other management systems?

a. If yes, which ones?

Yes, the safety management system is integrated in the overall quality management system (according to ISO 9001).

2) If yes on question 1,

a. Are elements divided into separate PDCA-processes, e.g., one competence PDCA-process, one risk-PDCA-process, etc.

No, all is integrated into the same.

3) Who/what role is responsible for the tasks a, b, c and d?

a. Responsibility to design the PDCA-process

Several units within Bane NOR has the responsibility. Quality has the overall responsibility for the ISO 9001 PDCA model. The safety department has the responsibility for the general requirements for part of the safety PDCA-process, while the different department have the responsibility for the detailed requirements for different parts of the PDCA-process. All detailed requirements must be coherent with the general requirements.

b. Responsibility to regulate the safety level of the business as a whole

The safety department has an overall role for the business as whole, but the safety for the business as whole is the top management in Bane NOR.

c. Responsibility to regulate the safety in part of a business process

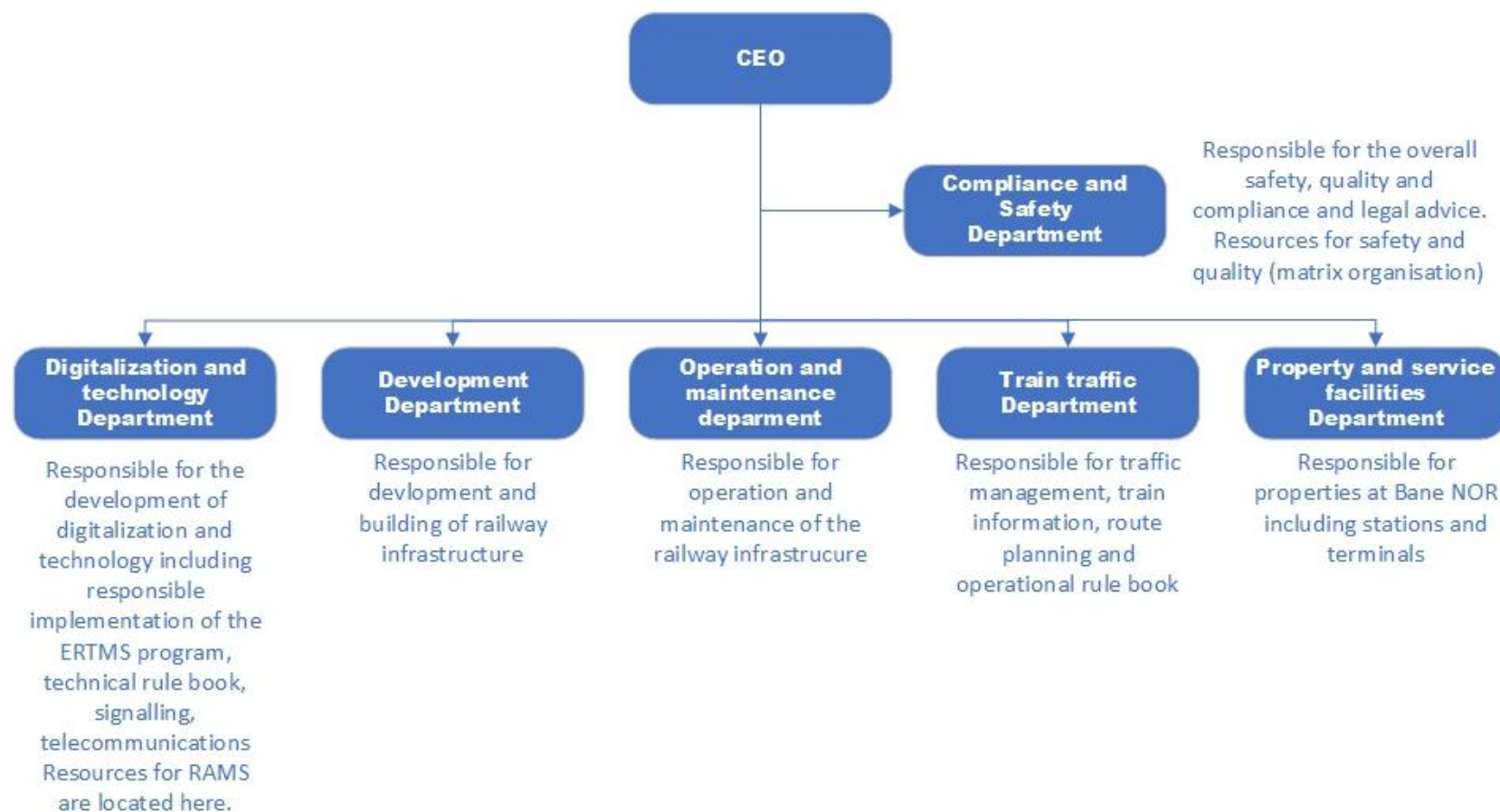
Based on the overall requirement each department is responsible for their part of the safety.

d. Responsibility to carry out the business safely

Each person doing tasks defined by the safety-process, including also those external companies that is doing safety related tasks for Bane NOR.

Please support the answers with an overall organisational chart and point out where the responsibility is put.

This is a (very) simplified organisation chart related to safety tasks according to the CSM SMS:



4) How does the safety organisation look like related to the safety management system?

It is the same as the organisation chart shown above.

5) How do you make sure that every requirement in CSM SMS is linked to a specific work task?

There is established a cross-reference table that are followed up regularly by the safety department.

6) How does your company ensure the continuous adequacy and effectiveness of its internal regulations in daily operations?

In each department and on the top level there are established a "Management Safety Forum" that meets regularly to discuss safety issues and risks identified.

7) How do end users find "the right" documented mandatory instructions, manuals, procedures, etc?

Procedures found in the Quality management system.

8) How are users introduced to safety instructions, manuals, procedures, etc. so they are easy to use/follow?

Different level of courses. There will be an overall course for safety establish during the year (if everything goes as planned).

9) How does your organisation handle a conflict between safety (e.g. a mandatory safety rule) and business (e.g. speed or capacity)?

It is made clear from the CEO that safety shall always be prioritized. This is made a requirement in the overall safety procedures. It's also part of the safety policy to make sure that the safety culture in the organization put safety first.

Annex V Infrabel

QUESTIONS	ANSWERS
The wording 'business process' below is considered to include all tasks which are necessary to carry out the role of an infrastructure manager ¹ . The flow is considered to be from the need of the customer to the delivery of the infrastructure manager.	
The wording PDCA-cycle below is considered to include all the SMS-elements ² which are necessary to carry out in order for the infrastructure manager to ensure the safety in the business of their organisation.	
1) Do you integrate your safety management systems into other management systems?	No. Each management system is independant from the others.
a. If yes, which ones?	/
2) If yes on question 1,	/
a. Are elements divided into separate PDCA-processes, e.g., one competence PDCA-process, one risk-PDCA-process,	/
3) Who/what role is responsible for the tasks a, b, c and d?	
a. Responsibility to design the PDCA-process	SMS specialists team, the team leader, manager and head of safety department, as conductor of the orchestra
b. Responsibility to regulate the safety level of the business as a whole	SMS specialists team, the team leader, manager and head of safety department, conductor of the orchestra.
c. Responsibility to regulate the safety in part of a business process	The Process Owners (the principle of delegation of powers is in place)
d. Responsibility to carry out the business safely	Each at their own level
Please support the answers with an overall organisational chart and point out where the responsibility is put.	See below
4) How does the safety organisation look like related to the safety management system?	It's located rather low in the organization (2 levels under the CEO)
5) How do you make sure that every requirement in CSM SMS is linked to a specific work task?	We use the maturity model created by the ERA as a basis for monitoring the requirements of the safety management system. We collect evidence of the achievement of these requirements and we plan actions if the requirements are not yet met.
6) How does your company ensure the continuous adequacy and effectiveness of its internal regulations in daily operations?	We have implemented a legal monitoring process (LEGAL WATCH process) which allows us to capture any changes to the Belgian or European legislative framework. - monitoring (internal audit, external audit, maturity audit, control by chain of command...) - ongoing staff training (continuing education, safety conferences) - BOMPAC (near miss report)
7) How do end users find "the right" documented mandatory instructions, manuals, procedures, etc?	There is an official platform where all the regulations are made available (MARIN).
8) How are users introduced to safety instructions, manuals, procedures, etc. so they are easy to use/follow?	- Basic training, continuing education, advanced training - HOF - Safety conferences - The staff who write this type of document come from the field
9) How does your organisation handle a conflict between safety (e.g. a mandatory safety rule) and business (e.g. speed or capacity)?	Principle "SAFETY FIRST", Dare saying STOP, Safety culture program, safety leadership training, no blame culture.

Annex VI ADIF

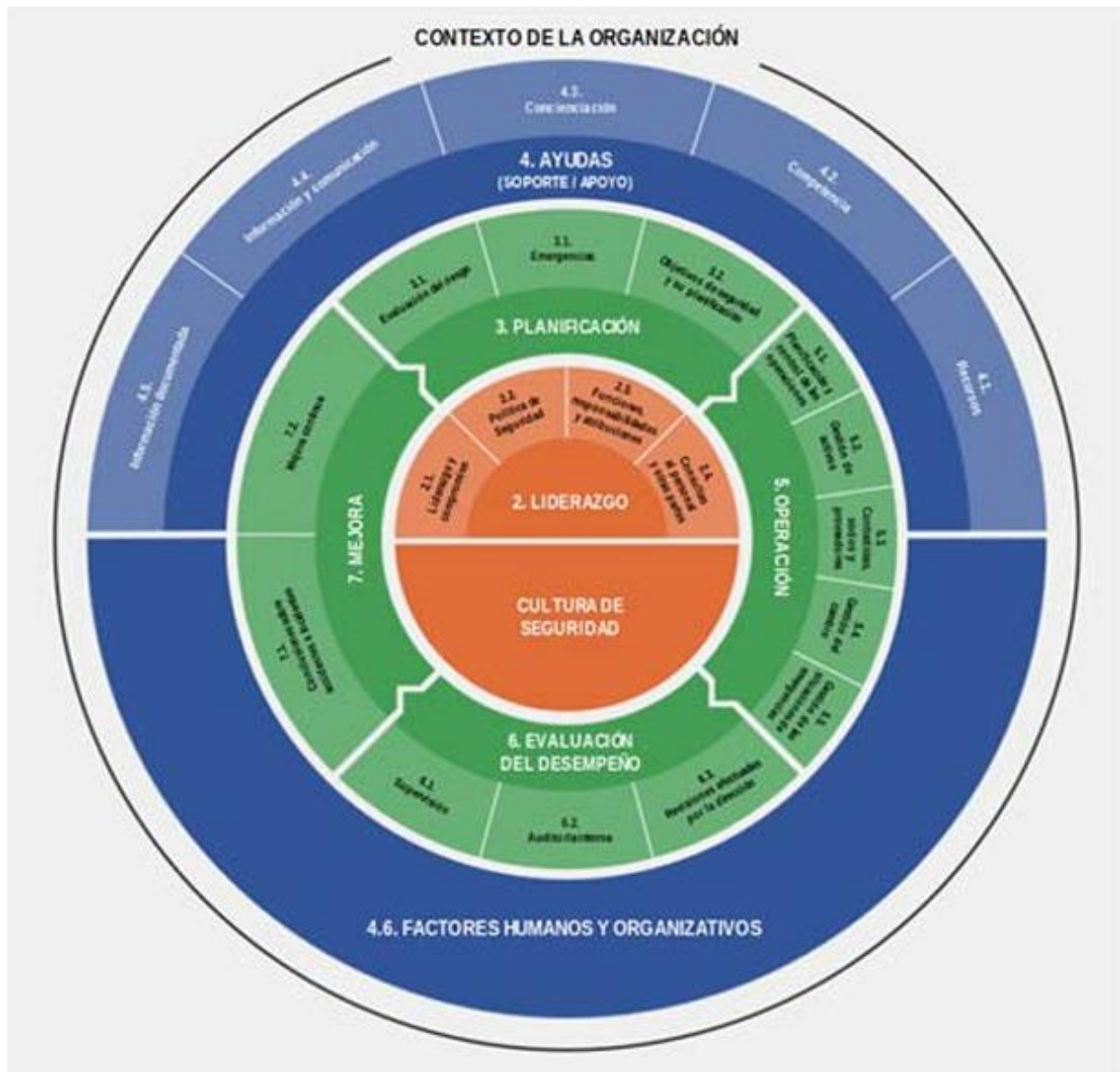
1) Does your organization integrate safety management systems into other management systems? If so, which ones?

Yes, in ADIF's quality management system "ISO 9001" (GHS)

2) If they answer yes to question 1:

Are the elements divided into separate PDCA processes, e.g., a PDCA competency leads to a process, a PDCA risk ends to a process, etc.?

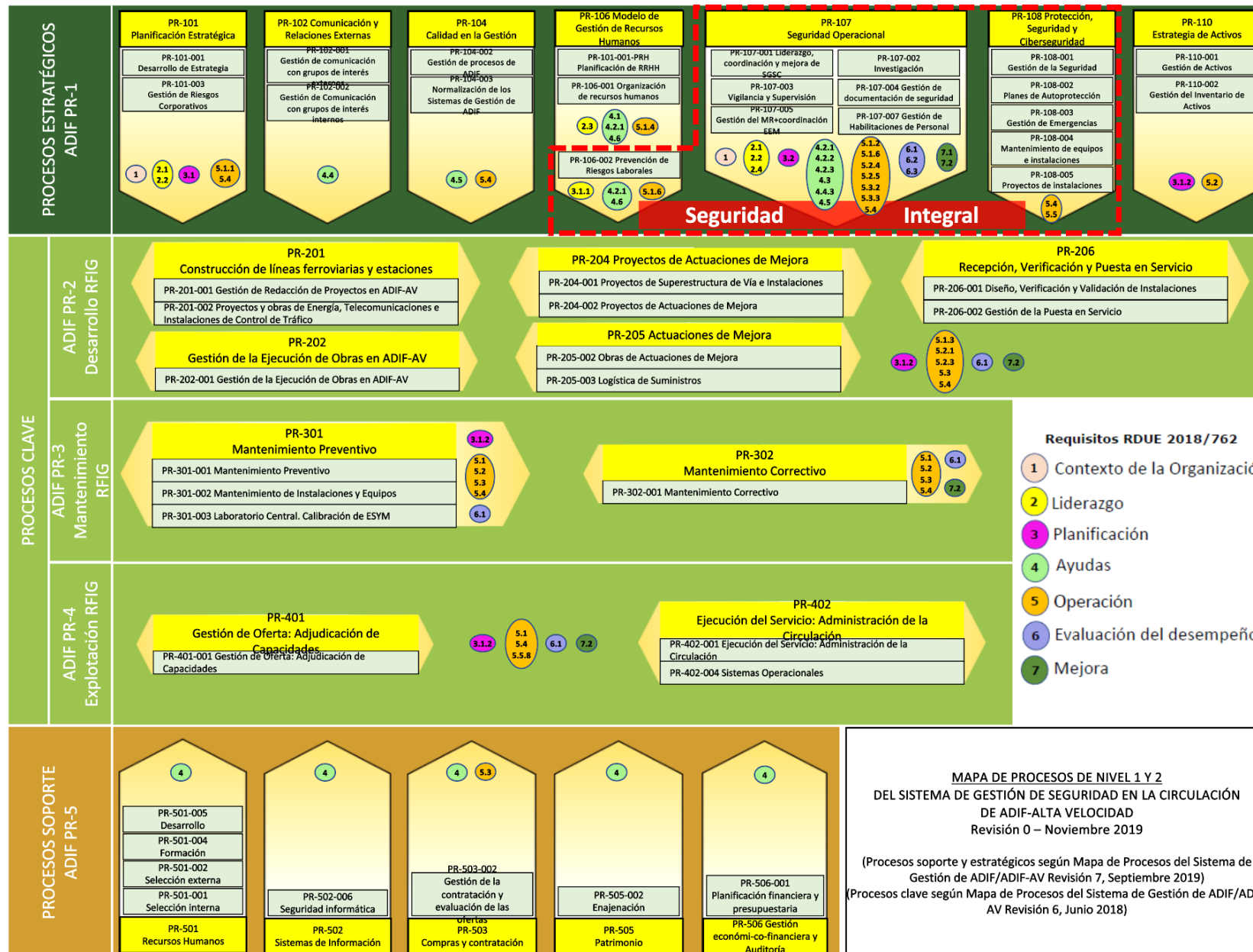
The SMS is based on the Deming Cycle (Plan – Execute – Verify – Act) in accordance with the structure proposed in Annex SL of ISO (International Organization for Standardization) for management systems. The monitoring of this structure facilitates integration with ADIF's Management System and ensures alignment with the Safety Management Systems wheel proposed by the European Union Railway Agency:



The core PDCA process is complemented by other elements of the SMS:

- Context of the organization, which provides information to the planning phase;
- Leadership, as the driving force of the PDCA cycle;
- Various support functions that are supportive for all elements of the SMS.

Yes, according to ADIF's process map, processes with the PDCA cycle are identified:



3) Who/what role or department of the organization is responsible for the following tasks a, b, c, and d:

a. Responsibility for designing the PDCA process

The design of the PDCA cycle established in the SMS is determined as a requirement in the Guideline for the policy and management of safety in railway traffic in ADIF and in the SMS Manual, both high-level documents signed by the president of the Entity.

b. Responsibility to regulate the level of safety of activities as a whole

General Committee on Safety in Operation, as the highest governance body of the SMS, included in the Directive for the policy and management of safety in railway traffic in ADIF.

c. Responsibility to regulate security in part of a business process

Other bodies for the coordination and participation of the governance of levels 1 (Internal Supervision) and 2 (Operational Control) of the governance of the SMS, included in the Directive for the policy and management of safety in railway traffic in ADIF.

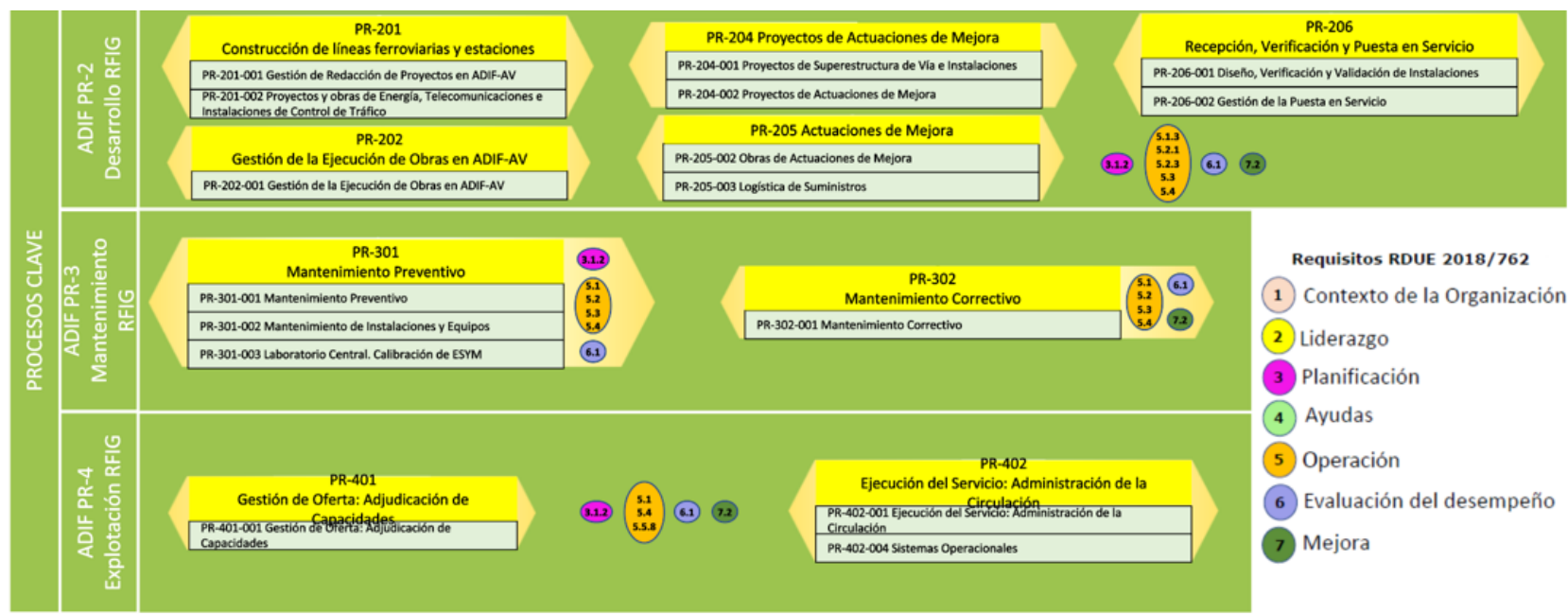
d. Responsibility to carry out activities safely

Responsibility for risk control of the activities of the key processes of the ADIF and ADIF HS process map (Design/Project/Construction, Maintenance and Operation – Operation and Traffic Management and Operation of Service Facilities) of the corresponding designated ADIF organisational areas.

Please support the answers with a general organizational chart and point out where the responsibility lies.

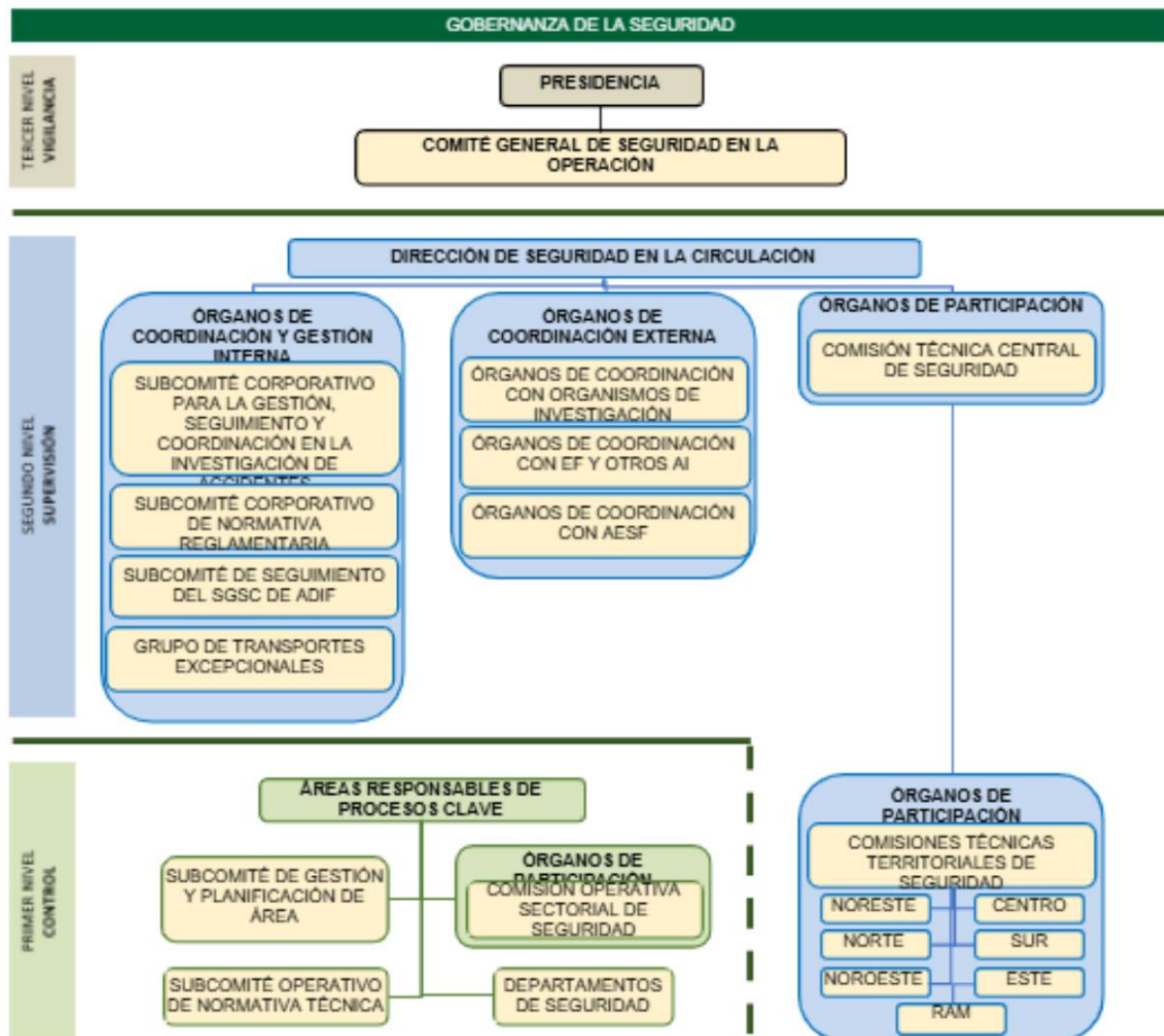
The organizational chart of the currently existing organizational units corresponds to each of the key processes of the ADIF and ADIF HS process map:

- ADIF PR-2 RFIG Development: Design/Project/Construction
- ADIF PR-3 Maintenance RFIG: Maintenance of structural subsystems.
- ADIF PR-4 Operation of RFIG ADIF: Operation and Management of Traffic and Operation of Service Facilities



4) What is the safety organization like in relation to the safety management system?

The governance of the SMS Manual is organised according to the following scheme, according to the Guideline for the policy and management of safety in railway traffic in ADIF:



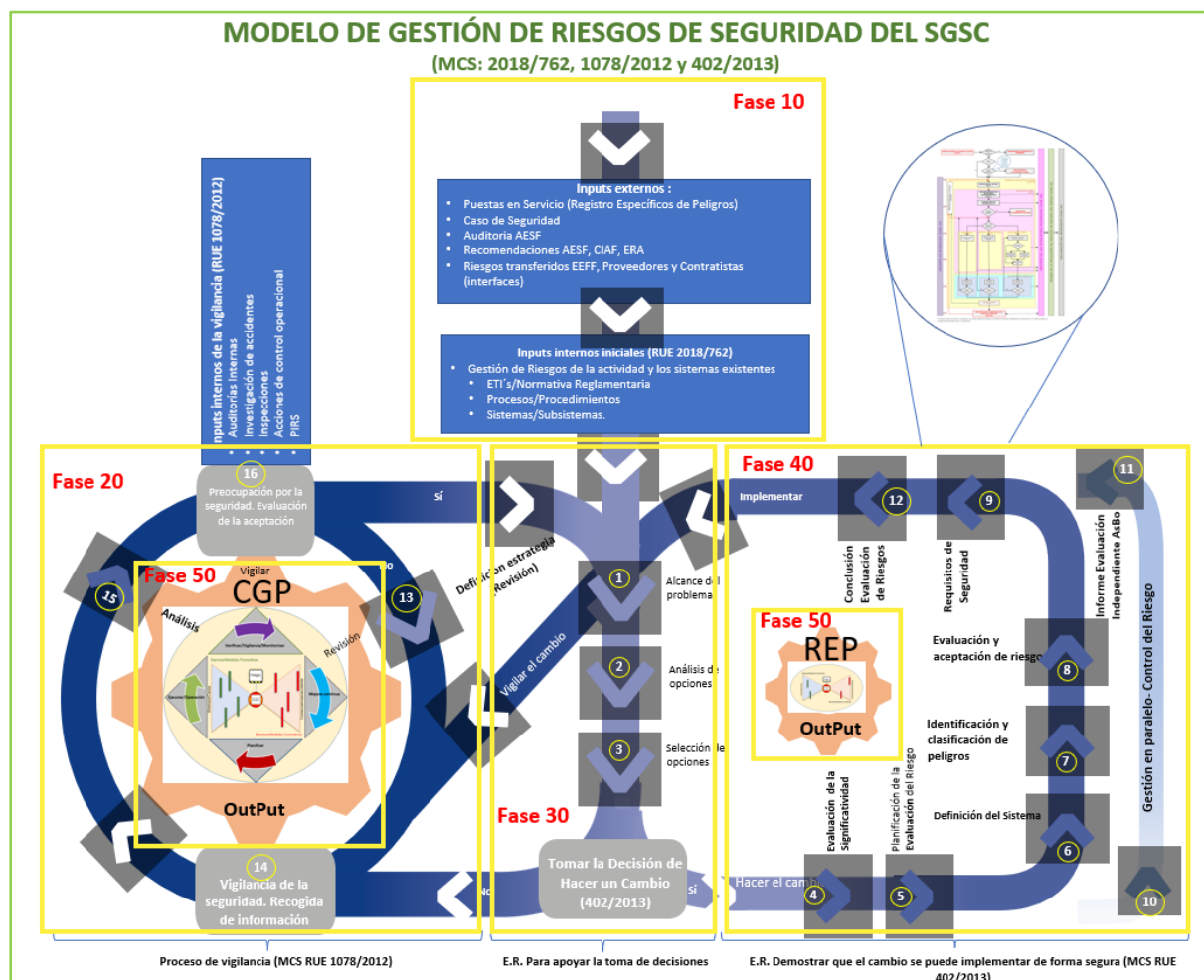
- **First level** (Strategic Oversight): President of ADIF and General Committee for Safety in the Operation.
- **Second level** (Internal supervision): Internal coordination and management bodies, external coordination bodies and central-level participation bodies.
- **Third level** (Operational oversight): Areas responsible for processes and key and participation bodies at the territorial level.

5) How do you ensure that each requirement in the SMS is linked to a specific job task?

The Guideline for the Policy and Management of Safety in Railway Traffic in ADIF and the SMS Manual define the description of the positions with functions in traffic safety. Likewise, the requirements of the SMS Manual that are included in the procedures are outlined to the areas responsible for their compliance.

6) How does your company ensure the continued adequacy and effectiveness of its internal regulations in daily operations?

The SMS has elements that ensure the evaluation of its performance and, considering the return of experience of its results, promote actions for the continuous improvement of its efficiency (requirements 6.1, 6.2, 6.3, 7.1, 7.2 of Annex II of RDUE 2018/762).



7) How do end-users find documented and documented instructions, manuals, mandatory procedures, etc.?

Through the official repositories where all the information is located, as well as through the methodology and applications that guarantee the controlled distribution of the SMS documents necessary for the performance of safety tasks in the operation.

8) How are safety instructions, manuals, procedures, etc., presented to users so that they are easy to use or follow?

They are presented through standardised formats following a methodology of preparation and distribution included in the SMS.

9) How does your organization manage a conflict between safety (e.g., a mandatory safety standard) and a "business" activity (e.g., speed or capacity)?

The SMS provides that in the event of conflicts of interest between security and management, the safest condition always prevails. Subsequently, these conflicts are resolved in the participation bodies as another part of the return of experience to learn and improve the performance of our activities.

References:

Infrastructure manager means any person or company responsible for establishing, managing and maintaining railway infrastructure, including traffic management and control-command and signalling; the functions of the infrastructure manager in a network or part of the network may be assigned to different bodies or undertakings; [EU SERA Directive 2012/34/Article 3(2)]

'Infrastructure manager' means an infrastructure manager as defined in point (2) of Article 3 of Directive 2012/34/EU of the European Parliament and of the Council; [Railway Safety Directive (EU)2016/798, Article 3(2)]

SGS elements are required as per the requirements of a safety management system in (EU) 2018/762

The requirements in MCS SGS (EU) 2018/762 are implemented in the organization's SGS. There is a chain of things within the company that reaches a specific task. That link is requested.