




ERJU SYSTEM PILLAR

Systems Engineering Management Plan - Annex MG Mirror Group Guideline



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Abstract	The Mirror group Guideline is not a formal part of the SEMP since mirror groups are organized by the sector organisations and coordinated directly by the domain leads. This document summarizes recommendations for the interactions with the mirror groups.
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1 Summary

The mirror groups should have the following role:

Mirror Group

The sector involvement and decision process is described in  SPPR-3391 - [1] Europe's Rail Joint Undertaking Governance and Process Handbook v2.6 (December 2023). The basic principles are:

- Mirror groups can be established on the Rail Operator side and the Rail Industry side independently, or also together. Also members from other sectors, from technological research companies, universities or any other area of experts are possible mirror group members, if they can contribute to the process.
- Mirror groups enable the involvement of additional experts
 - to contribute to the deliverables of the domain
 - to align the sector organisation, ensuring the sector buy-in and input, supporting the planning and reviewing process for the domain.
 - ensure, that the later decision process is based on a good range of sector input and experienced opinions
- Domain Leads are mutually deciding and organising the work assignment and involvement of and interaction with the concerned mirror groups. Mirror group member can be fixed or temporary contributors. In this case they are completely integrated into the domain work process
- Mirror group member can represent a company or body, or just bring in their personal experience

Structure, size, and form of the mirror groups are based on the proposal of the domain leads and decided by the sector organisations (SP Steering Group members). Mirror groups can also be joint groups for several domains. They can be joint teams for railway and suppliers, or separate. Domains, together with the mirror groups, strive for consensus without slowing down the process. Mirror groups shall bring positions of their respective sector into the work of the Domain teams, in order to ease the work and discussion in the Domain team and maximize sector acceptance. If consensus in the Domain team cannot be achieved before a given due date, the dissent is documented and brought to a decision via System Pillar Governance process.

The following figure illustrates the relationships and interactions between the Domain and the representatives of different railway and supplier organisations.

The mirror groups of a domain

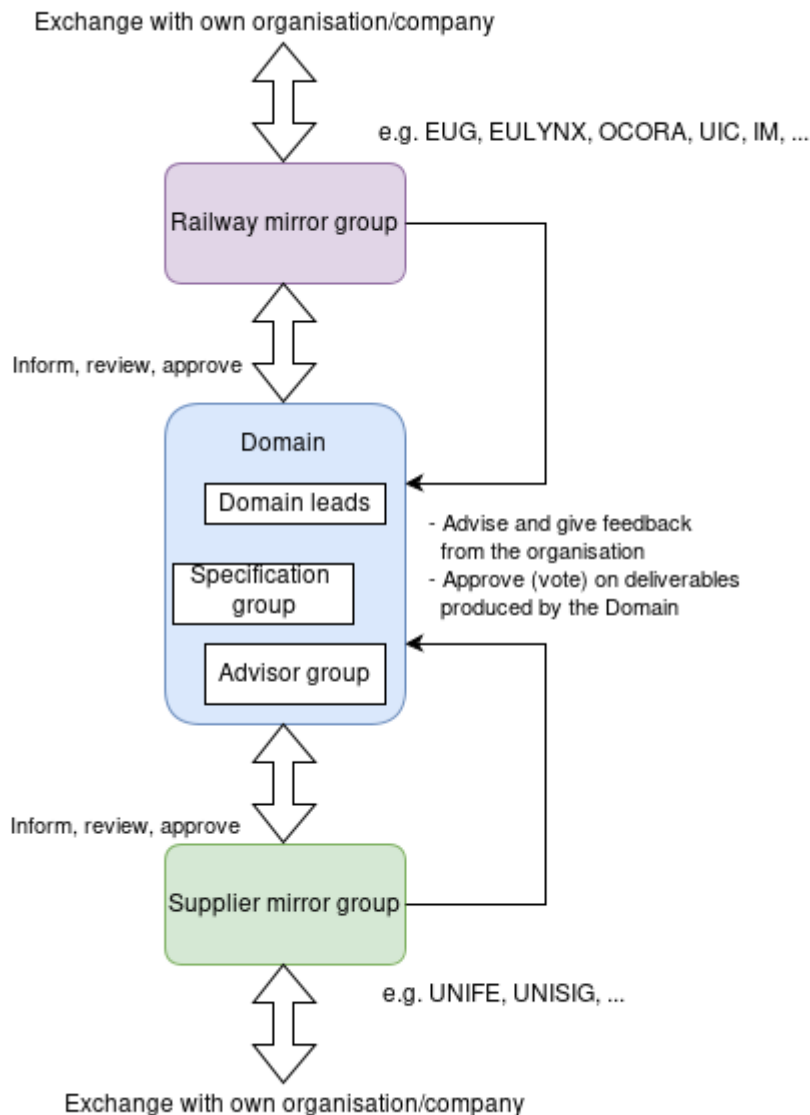


Figure 1

1.1 Mirror Group involvement

1.1.1 Mirror Group involvement in review and approval

This section gives a high-level overview on the principle processes for Mirror Group involvement. The involvement is managed and triggered by the Domain Leads.

The creation of a document shall be a planned process. Therefore, for every deliverable an empty document shall be created which already contains the dates for approval start and delivery to the different stakeholders mirrorgroups. By this, the document plan in the domain reporting shows the complete schedule for approvals and delivery (and also shows a plan of the domain work itself). [SPPR-5568]

The review and approval process is defined in *SPPROCESS/SEMP Annex D Processes/SEMP Process 0945-Review and Approval Process* : 722698 and explained in the video "[Training for readers and approvers.mp4](#)". [SPPR-5562]

Mirror group members may be designated as reviewers in the **review** process; however, their involvement should be reserved for situations where their expertise or perspective is crucial. This includes scenarios where the subject matter is highly critical, polarizing, or when the members have specialized knowledge relevant to the topic under consideration. [SPPR-5566]

An **approval** is a mandatory step in the decision process of the SP, where all mirror group members shall be invited, including the participation to the voting (approval or disapproval for approval work item on the top of each document) by single mirror group members.

The approval process performed by the domain members and the mirror group is a mandatory process step before the deliverable can be forwarded to the SP Coregroup and the SP Steering Group as next steps in the decision process.

Note that in the SP Governance the mirror group has no formal role in the decision process, hence the mirror group approval/disapproval is informative.

What happens in case of disapproval is described in *SPPROCESS/SEMP Annex D Processes/SEMP Process 0945-Review and Approval Process : 722698*. [SPPR-5565]

It is important to achieve a full sector involvement on the one hand, and an efficient involvement of the capacity of mirror group members and the authors on the other hand. Therefore and in the optimal case, the mirror group should be involved only for one approval process based on a result (deliverable) with already a high quality. In order to have an efficient and fast process, the mirror group members shall focus on controversial items that have not been agreed within the domain team before, and optimally provide a consolidated view of their mirror group. [SPPR-5564]

1.1.2 Mirror Group involvement as contributor

Mirror groups might contribute to the development of documents directly. This voluntary contribution shall be considered only, if the respective capacity to deliver the work can be committed to the Domain Leads. The Domain Leads consider this committed capacity in the planning of the domain work, and define the scope and timeline of the work of the mirror group as part of their documentation plan. [SPPR-6291]

The mirror group is then obliged to deliver the relevant work, using the System Pillar engineering environment , process and rules as defined in the *SPPROCESS/10 SEMP V 01_01/SEMP Systems Engineering Management Plan : 722698*. Adherence will be ensured through the review and approval process with the regular domain team. [SPPR-6293]

Voluntary contributions of mirror group members

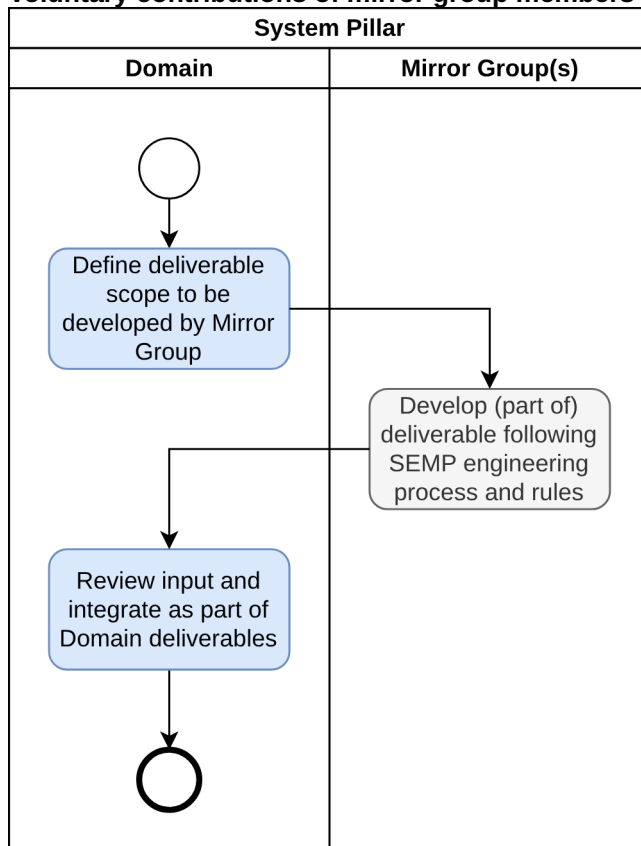


Figure 2

1.1.3 Request sector input

Mirror groups may be consulted to obtain a comprehensive sector perspective on strategic topics not yet included in formal documents or deliverables. This could involve initiatives like questionnaires or similar forms defined by a particular domain. These groups play a consulting role, gathering insights from their own members and engaging with other sector stakeholders outside the mirror group. This approach ensures that a broad and well-rounded perspective is consolidated, serving as a foundation for further work within the domain team. [SPPR-6295]

Surveys via Mirror Group

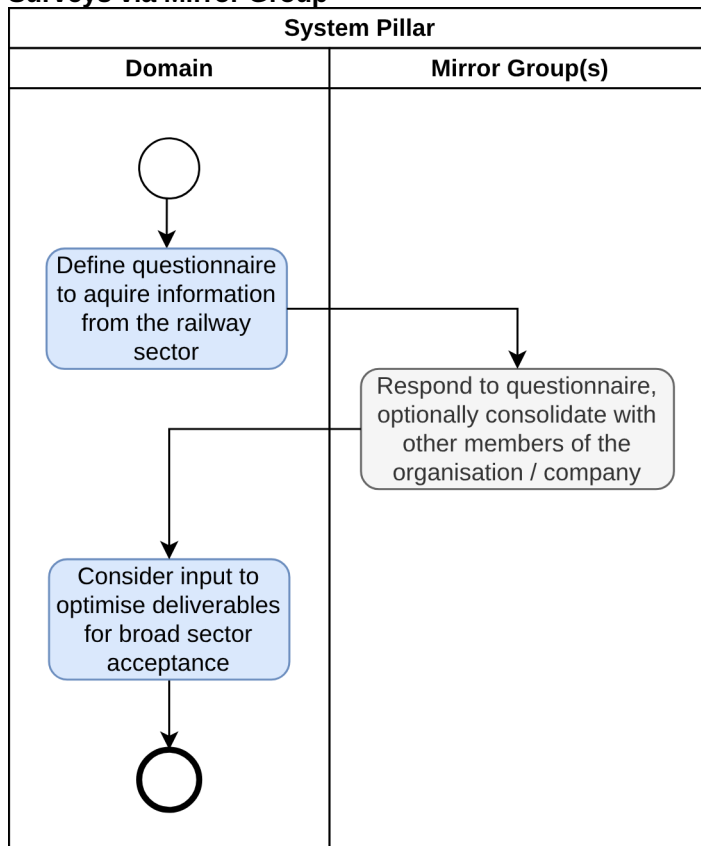


Figure 3

2 Mirror group members

The list of mirror group members is managed by the domain leads, in coordination with the sector bodies (Steering group participants). Mirror groups are open for all sector participants. The target for the list of mirror group members is that at least a good representation of the different sector expertise and interests is achieved. For domains with cross-cutting tasks (like EET or T2ARC) the other domain leads may be part of the mirror group. In each document there is a document property "mirror group", in which the mailing-list of domain members and mirror groups members is copied, when the approval is started on domain level. [SPPR-5572]

Mirror groups are reflecting and assessing the work of domain authors and are independent persons coming from the sector. This means that they are not members of the same domain as the domain authors. [SPPR-6296]

Mirror group members can contribute in a domain as volunteers (not paid by the domain). In this case, the scope and effort needed from the mirror group member(s) need to be assessed and assigned to them by the Domain Leads. Note, that the contribution of the mirror groups is voluntary and therefore needs to be planned carefully and in advance and is under the control of the Domain Leads. [SPPR-5691]

The minimum requirement for Mirror Group members is that they are experts or representatives from sector bodies. The sector bodies (Steering group members) should be explicitly asked by the domain leads if they want to delegate a person to a mirror group. [SPPR-5557]

Additionally, expertise from academia or other sectors can be helpful if a domain works with content that is not railway specific or can capitalise on specifications from other sectors. [SPPR-5560]

3 Information flow

Mirror group members should be constantly informed about ongoing activities, such as deliverables in preparation or new and modified content. Early involvement even in draft status shall be possible. [SPPR-5558]

The aforementioned document plan of the domain (domain reporting) shall be regularly updated (especially the approval date and the progress description) and sent to the mirror group to plan the review effort. Additional planning in the domain (e.g. GANT charts) is encouraged to further optimise the planning of reviews and approvals. [SPPR-5559]

The Domain Leads are responsible to fix a meeting schedule with the mirror group to share information, discuss open points, etc. [SPPR-5674]

4 Access to Polarion

Mirror group members shall normally have an unrestricted **reviewer license** access to Polarion, but not a contributor license. [SPPR-5561]

Mirror group members should be instructed not to comment before official review or approval processes start. [SPPR-5563]


If a mirror group member contributes in a domain as a volunteer, then they need a **contributor license**. [SPPR-5690]

5 Consent, dissent and escalation

During the approval process, dissent positions (disapprovals) are to be carefully considered and sufficiently addressed by the authors group. The aim is to achieve **consent** in the sector. [SPPR-5670]

In case that **dissent** positions prevail, all justifications for the disapproval of a work item are saved in Polarion and are thus visible for the SP Core Group and Steering Group. They will consider the dissent positions in the decision process. [SPPR-5671]

In case that a decision by the SP Core Group is opposed, mirror group members can **escalate** by initiating the creation of a Change Request in the Domain. The Change Request is reviewed by the SP Change Control Board (see *SPPROCESS/SEMP Annexes/SEMP process 91-Change Control Management Process : 722698*). [SPPR-5672]

See  SPPR-3391 - [1] Europe's Rail Joint Undertaking Governance and Process Handbook v2.6 (December 2023) for more information [SPPR-10712]

6 Involvement of the coregroup

Normally, the Coregroup is involved with an approval request or information request AFTER the approval was finished in the domain and mirror group team. Do not forget to set the "Ready for" field in the document properties when the status changes.

7 Onboarding information for Mirror group members

Starting point for every mirror group member is the *SPPROCESS/10 SEMP V 01_01/SEMP Systems Engineering Management Plan : 722698*.

The Domains create their own set of Onboarding material for mirror group members with Domain specific information about the involvement and interaction with the mirror groups. [SPPR-5675]

The Architecture Release and coordination domain provides a comprehensive presentation on the most important SP approach and further information about working with Polarion on Sharepoint: [ARC 2.1 Railways Domain Mirror Group Agenda 1st June 2023.pptx \(sharepoint.com\)](#) [SPPR-5700]

General information for mirror group members can be found on Sharepoint: [SP Mirror groups.pptx](#) [SPPR-5676]

General information about the SP organisation and aims can be found on the ERJU website:

- Goals: [What are the goals of the System Pillar - Europe's Rail \(europa.eu\)](#)
- Organisation: [System Pillar Organisation - Europe's Rail \(europa.eu\)](#)

[SPPR-5692]

8 Registration of mirror group members

The registration as a mirror group member is organised by the Domain Leads e.g. registration via email or providing a list. [SPPR-5638]

To get involved as a mirror group member, the Domain leads can be contacted by email. Please refer to the following contact list: See domain leads in  All SEMP Allocation Roles. [SPPR-5639]