Discovery:

In recent years SBB has started to include more OSS such as Node JS or OpenShift and use them instead of the earlier used components such as IBM or vmware. These products are used by SBB employees and if a new OSS gets adopted then employees start using that one. In terms of SBB developing OSS under the umbrella of their participation in the Open Railway Association then their products are accessible through the official website (<https://openrailassociation.org/>). The status of there ongoing and completed Projects is also displayed on there.

Review & Approval:

In their development of their own OSS different components are listed and verified in GitHUB repositories with public access where external contribution is encouraged, albeit restricted by certain guidelines that are also provided on the Repository of each of those projects and must be read by external people before any form of contribution (https://github.com/SchweizerischeBundesbahnen/netzgrafik-editor-frontend/blob/main/CONTRIBUTING.md).

Commercial Procurement:

OSS is made available through GitHUB Repositories and this as soon as there is code written, meaning at the start of the actual development and coding. From that point on the changes and updates made to the repositories are automatically documented by GitHUB under the inclusion of user-defined comments that explain each step in development. These Repositories are accessible through the Projects section on the Open Railway Association’s official website (https://openrailassociation.org/#projects).

Code Management & Maintenance:

The ownership in the code of developed OSS remains in the hands of the association but the main responsible organization is communicated and remains the closest associate of the project in spite of it being considered as owned by the association rather than the lone member of such. Maintenance is also the responsibility of the company, in this case SBB for certain projects that stem from their production and development. Example given “Netzgrafik Editor” (https://github.com/SchweizerischeBundesbahnen/netzgrafik-editor-frontend/blob/main/README.md).

Community Interaction:

Participation towards development is encouraged in the second and third level of interaction. Private individuals may provide contributions in GitHUB for specific projects while abiding by the guidelines that are provided there. Albeit a company may also participate if they join the association of which the SBB itself is a part of (https://github.com/SchweizerischeBundesbahnen/netzgrafik-editor-frontend/blob/main/CONTRIBUTING.md).

Compliance:

The license used in the development of any project in association to open source is publicly available and failure to comply with it is met with exclusion from projects, user rights or legal consequences (<https://github.com/OpenRailAssociation/website/blob/main/LICENSE.txt>). Other projects may have a different license form such as the SBB exclusive Project “Netzgrafik Editor” (https://github.com/SchweizerischeBundesbahnen/netzgrafik-editor-frontend/blob/main/LICENSE).

Executive Engagement:

When a project is to be approved by the Open Rail Association it has to go through a predetermined incubation process that includes 5 stages of a project (https://github.com/OpenRailAssociation/technical-committee/blob/main/incubation\_process.md). Since the projects of SBB included with the Open Railway Association have gone through these it is safe to assume that this process is also applied to their OSS Projects in general. These five stages include: Candidate, Sandbox, Incubation, Graduation and Retirement. During the early stages the technological team of the association is tasked with the evaluation of whether a project complies with the necessary criteria to be allowed into the next stage. During each of these stages the executives may be included and consulted if certain aspects aren’t clear or if they take an interest in the project.