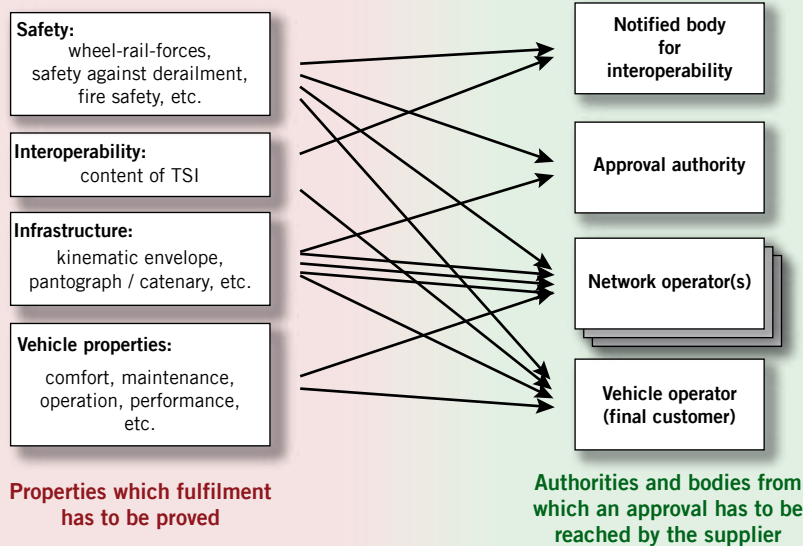


## Management of rolling stock approval process



The complexity to prove conformity to all requirements demands a clear management of the approval process.

### Customer Requirement

Nowadays, the vehicle supplier is responsible to reach an approval for his vehicle. Evidence of properties has to be given to authorities and bodies by documents and by executing tests. Notified bodies for Interoperability are responsible for interoperability constituents, network operators check the fulfilment of safety requirements, requirements concerning compatibility with the infrastructure as well as some important key properties. Last but not least, the vehicle operator requires an evidence on the contractually agreed properties. The approval processes of those authorities and bodies are normally not coordinated. The management of the approval process shall ensure an approval within budget and time frame as previously agreed.



The high speed train AVE S102 for the Spanish line Madrid-Barcelona is built and will be approved according to the technical specification for interoperability (TSI). PROSE supports the project team in the tasks related to the approval of the train set.

### Realisation

The management of the approval process covers the process and content of the approval. This requires an integration of the management of the approval process in the project team of the supplier. Current knowledge on authorities, bodies, state of the art, standards and national specialities is required too. A continuous change can be observed.

Experienced engineers of PROSE, who work full time in the area of vehicle approval work as external employees with their experience and knowledge directly in the project team of the supplier.

This engineer supports the supplier at the negotiation of the requirements with authorities and bodies (content and process), ensures that all requirements are taken into account and covered efficiently (for example each test covers the requirements to this topic of all bodies) and organises, that each document is ready in time.

### Customer Advantage

The project team of the supplier can fully concentrate on the development and production of the vehicle. It is not absorbed by gathering the actual situation concerning requirements and processes for each project again. The risks of the approval process concerning time and costs are minimized by the professional management of the approval process.

### Factsheet 2.00014

#### Detailinformationen

##### Scope of supply

- Approval process management in international projects
- Negotiations with several national authorities and bodies to agree a tailored and minimised set of tests
- Approvals based on the technical specification for Interoperability for high speed railway systems (TSI)
- Current knowledge on European standards, UIC documents and national requirements
- Generation of test specification and concepts to negotiate with authorities and bodies in order to reach a security, that an approval can be reached with the specified procedures
- In collaboration with the project team of the supplier, the approval process manager ensures that all documents are ready in time.

##### References

- **RENFE AVE S102 (Spain)**  
Member of the project team of the consortium responsible for the approval of the train by the notified body for interoperability (ADAF), the two infrastructure operators (GIF and RENFE) and the vehicle operator (AVE RENFE)
- **NSB EMU Class 72 (Norway)**  
Approval process management on behalf of Adtranz in the consortium with AnsaldoBreda
- **VR Sr2 (Finland)**  
Approval process management on behalf of SLM in the consortium with Adtranz

##### Contact

Mr. Stefan Bühler  
Phone +41 (0)52 262 74 12  
Fax +41 (0)52 262 74 01  
stefan.buehler@prose.ch



Planning of the approval process and its realisation as well as the continuous monitoring of the status keeps the approval process transparent and controlled for all concerned

### PROSE Ltd.

Zuercherstrasse 41  
8400 Winterthur  
Switzerland  
Phone +41 (0)52 262 74 00  
Fax +41 (0)52 262 74 01  
www.prose.ch  
info@prose.ch