



SUBSET-150

WHAT IS IT?

It is a concept for the evolution of the on-board CCS architecture.

Subset-150 is UNISIG's vision for the future evolution of the on-board CCS architecture developed by UNIFE/UNISIG in collaboration with UNIFE/UNITEL.



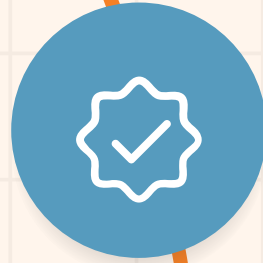


Main Focus Areas



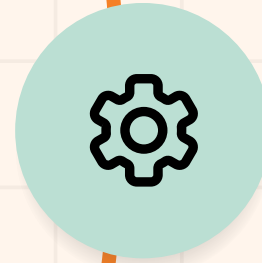
01

Automatic Train Protection (ETCS & national systems)



02

Automatic Train Operation (ATO)



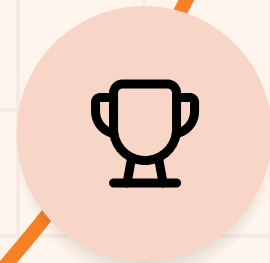
03

Driver-Machine Interface (DMI) integration



04

Radio communication (ETCS/ATO data & cab voice)

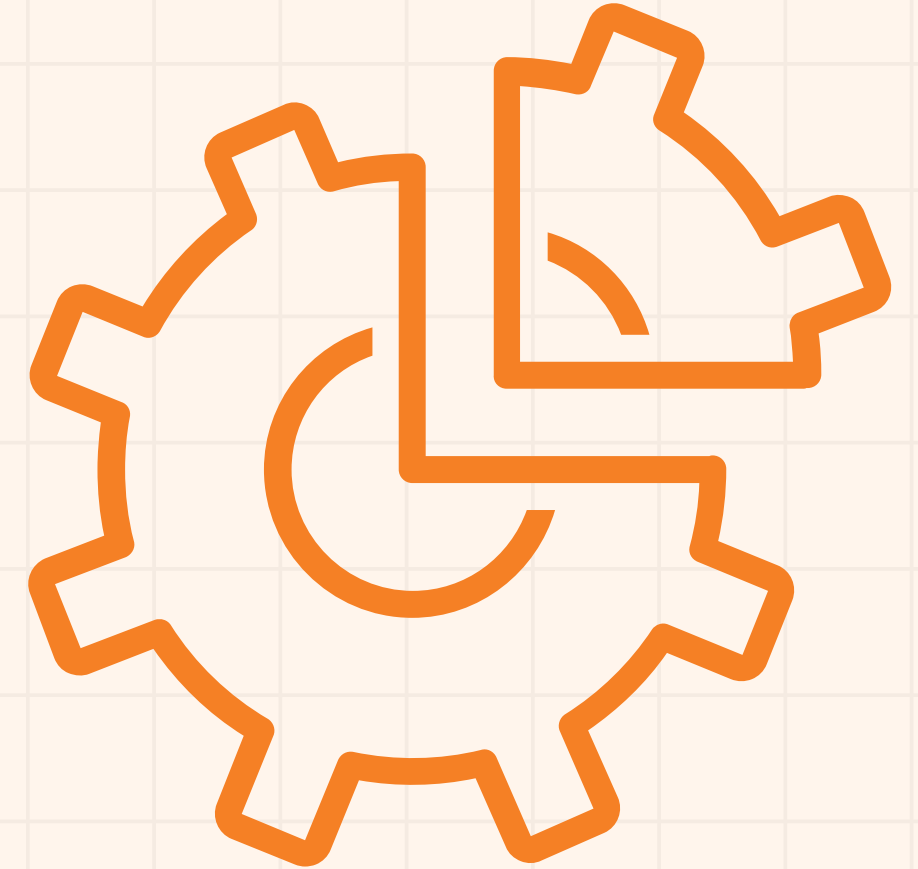
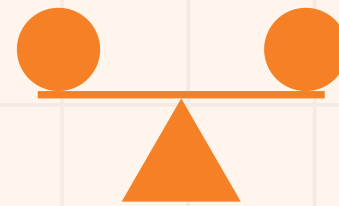
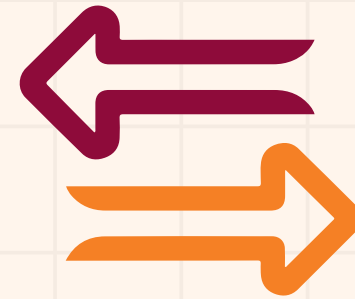


05

Interfaces with: Trackside CCS subsystem & Rolling stock subsystem (including TCMS & juridical recording)

INTEGRATION & COMPATIBILITY

- Striving for forward and backward compatibility
- Supporting new and existing vehicles (retrofit-ready)
- Promotes modularity balance
- Promotes exchangeability of subsystems under clear conditions



KEY MESSAGES

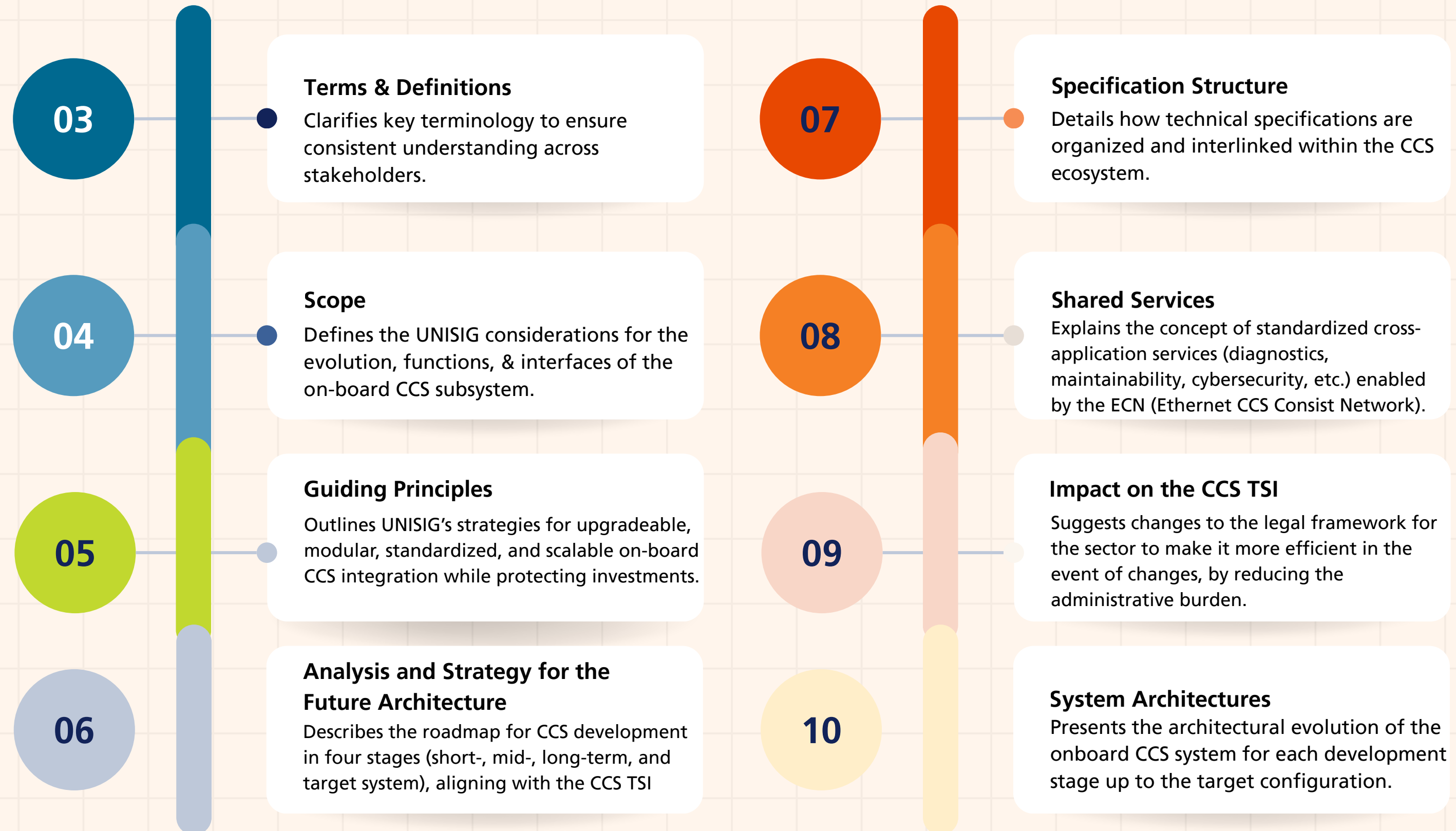
- Modularity enables manageable integration, but must be balanced to avoid excessive complexity.
- The concept enhances the on-board CCS subsystem through a transparent communication platform (Ethernet CCS Consist Network) that provides an open interface to the ETCS on board.





Understanding SUBSET - 150

Structure





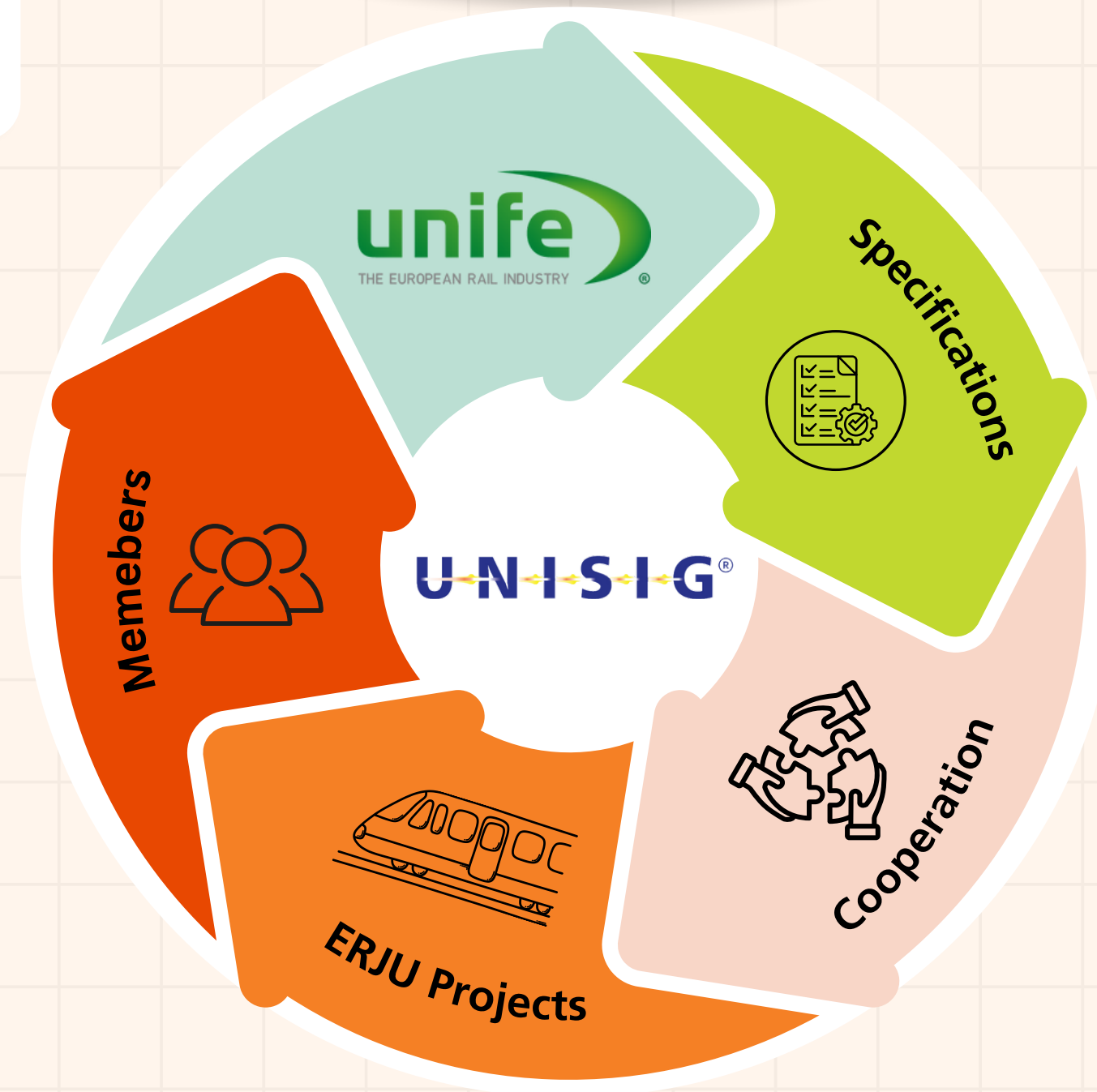
BUT WHAT IS UNISIG?

As part of UNIFE (the European Rail Industry Association), UNISIG is the technical body responsible for developing, maintaining and updating the ERTMS® and CCS/TMS technical specifications.

The role of UNISIG today is to develop, maintain and update the ERTMS® and CCS/TMS technical specifications in close cooperation with ERA, the “system authority” for ERTMS®.

UNISIG actively collaborates with railway representative bodies in the ERA’s working groups. While the European Commission formally issues the final ERTMS® specifications after Member State approval, they are largely based on ERA’s recommendation. This recommendation is thoroughly discussed with the railway sector, including UNISIG.

UNISIG is also jointly working with the railways in the European Rail JU System Pillar on operational and technical standards for the entire railway signalling system, which will have a major business impact on the rail sector.



Nine companies Alstom, AŽD, CAF, Hitachi, MerMec, Progress Rail and Siemens Mobility are members of UNISIG, and as UNISIG partners, Scheidt&Bachmann and Mipro.