POSITIONING AND NAVIGATION

ceit

MEMBER OF
BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

SAFER AND MORE EFFICIENT MOBILITY AND TRANSPORT

The Positioning and Navigation group aims to locate any vehicle or/and assets in the world, providing position, navigation and timing (PNT) information. The benefits of applying PNT information to the railway domain range from simple passenger information systems to autonomous driving solutions that avoid human error. In addition to create a safer and more efficient transport mode, PNT information can be used as an enabler for smart maintenance, asset tracking, signalling system evolution, etc.
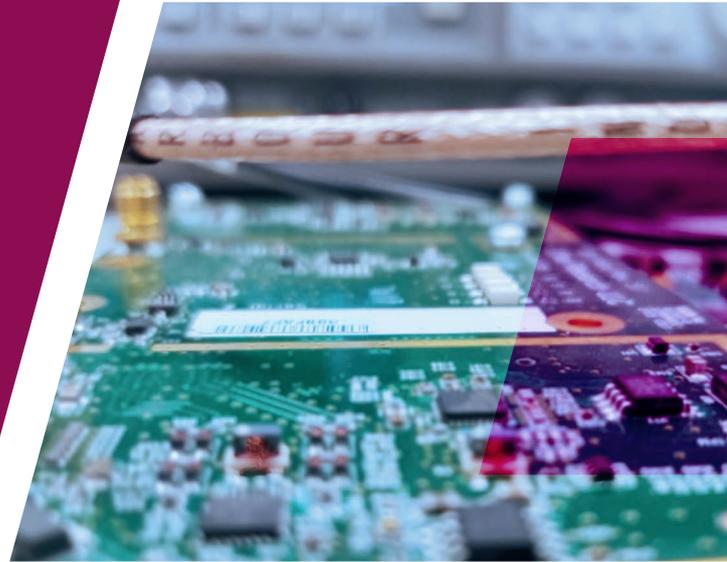

AD-HOC SOLUTIONS

Ceit provides ad-hoc development of positioning and navigation solutions. These solutions might be standalone positioning systems or complementary multitechnology redundant positioning systems to increase resilience. Analysing the objectives of the positioning and navigation is the key to finding the most suitable and cost-effective solutions for each use case. The multidisciplinary group's complementary knowledge allows **Ceit** to offer tailored solutions to cover all user needs.

KNOWLEDGE
AND EXPERTISE

Ceit offers expertise and experience in positioning and navigation technologies (multi-frequency and multi-constellation solutions, augmentation based solutions [EGNOS/EDAS, RTK, etc.], precise point positioning (PPP), fusion algorithms [GNSS, IMU, UWB, etc.], map-matching, mapping and visualization) in the railway domain (signalling, railway dynamics, energy, etc.). Moreover, **Ceit** has broad experience in collaborating on multidisciplinary projects.

PARTNERS & CUSTOMERS

NSL   DLR   Ansaldo STS   SBB Cargo   AŽD PRAHA

SNCF   IFSTTAR   MERMEC AN ANGEL COMPANY

PROJECTS

eaTS   TREND   ECUC   Roll2Rail   ERSAT   SIA

Shift2Rail   X2RAIL 1   X2RAIL 2   FR8RAIL   fr8hub