ITEA3 Project Outline Preparation Days 2016

Project idea

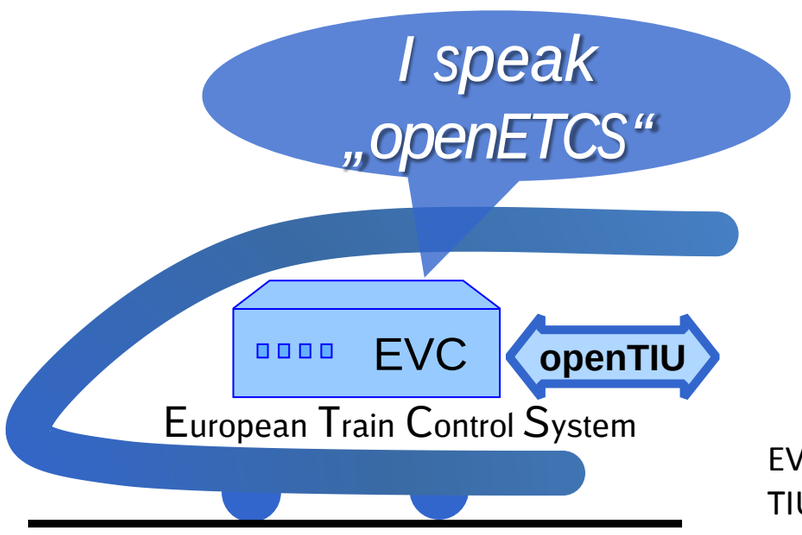
Project idea number

13

openETCS 2.0 Pro (PORVI)

Prototype openETCS Phase 2 Rail Vehicle Implementation

Based on the openETCS@ITEA2 project results, a real railway vehicle will be equipped with open source safety software, which carries out the train borne ETCS (European Train Control System) functions providing open interfaces and model based formalized open source software for standardizing future train control on-board devices.



EVC: European Vital Computer
TIU: Train Interface Unit

PARTNERS INVOLVED & INVITED

- → DB Netz AG *(Germany)*
- → NS *(The Netherlands)*
- → ATOC *(United Kingdom)*
- → Hexagon Studio *(Turkey)*
- → SNCF *(France)*
- → ALSTOM *(France/Belgium)*
- → SIEMENS *(Germany)*
- → DLR *(Germany)*
- → REFER *(Portugal)*
- → Uni Rostock *(Germany)*
- → THALES *(France)*
- → TWT *(Germany)*
- → AEbt *(Germany)*
- → ALL4TEC *(France)*

LOOKING FOR

- → Partners from other countries, especially France, Netherland, Belgium, Austria, Poland, etc. (other countries for cross-border operation)
- → Laboratories/Authorities to perform safety evaluation and tests
- → Software developing partners, experienced in either open source or safety and security software design and railway operation
- → Engineering partners for design and implementing OBUs into railway vehicles
- → Notified Bodies for ETCS supporting the authorization phase

KEY SELLING POINTS

What is the market relevance?

- Up to now ETCS On-Board Units (OBU) are still far too expensive for many Railway Operators, especially cargo and regional passenger trains
- Within the next 20 years many if not most European railway lines will be equipped with ETCS
- An open source approach may help to make ETCS more affordable

What is the innovation?

- This project will demonstrate that an open source approach is fit for being first applied in a real railway vehicle that can be authorized to operate on the European railway network
- First time EN50128 compliant open Source Software design and authorization

What is the business impact?

- The design will provide a simplified interface for cost effective retrofits of existing vehicles
- Cost reduction for further development of ETCS towards ATO (Automatic Train Operation)
- Faster, open innovation especially for reaching full level unattended ATO operation mode

CONTACT

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