CRYS TAL

PROJECT description
CRYSTAL is an ARTEMIS Innovation Pilot Project with the clear aim to (1) build on results developed by previous projects in the field of embedded systems engineering, enhance them with (2) technological bricks to fill identified gaps to (3) enable industrial application in partner’s engineering environments.

RELEVANCE
CRYSTAL will exploit domain-specific insights into embedded system design and safety processes to investigate and establish cross-domain synergies. Such cross-domain approach fosters the exchange of knowledge between partners of different domains creating synergies and hence strengthening the European market. The technologies provided in CRYSTAL together with the maturation of RTP and IOS will lead to faster development cycles including early validation of design concepts, thus allowing faster demonstration of feasibility.

MARKET innovation
CRYSTAL will reuse results of previous European and national projects to focus on the improvement and industrialization of the Reference Technology Platform: CESAR, MBAT, p/nSAFECER, SAFE, TIMMO-2-USE, OPENCOSS. Additionally, CRYSTAL will push forward the Interoperability Specification towards a European standard for interoperability.

TECHNICAL innovation
CRYSTAL is designed as ARTEMIS Innovation Pilot Project with the aim to establish collaboration schemes beyond individual projects and to speed up technology maturation cycles. Accordingly, the strategy for CRYSTAL technical innovation is based on 4 pillars:
1. Based on specific user stories and use cases, increase the maturity of existing concepts developed by previous European and national projects for industrial application
2. Provide technical innovations on high maturity to fill gaps identified ("technological bricks")
3. Contribute to the CRTP and push the Interoperability Specification towards standardisation
4. Support SME integration in the embedded systems engineering ecosystem

Within and across the application domains Aerospace, Automotive, Healthcare and Rail, CRYSTAL will cover the entire software product life cycle and support to product line development towards ready-for-use industrial tool chains.