

CRYSTAL - Critical Systems Engineering Acceleration



CRYSTAL – a truly European dimension.

CRYSTAL as an ARTEMIS Innovation Pilot Project (AIPP) takes up research results of previous projects in the field of Reference Technology Platform and Interoperability and enhances and matures them with the clear of industrialisation take-up.

Following the ARTEMIS mission to strengthen the European market for Embedded Systems, CRYSTAL fosters cross-domain reusability (Aerospace, Automotive, Health and Rail) and pursuits driving forward the Interoperability Specification towards standardisation. 71 partners from 10 European countries are cooperating in a 3 year project with a total investment of 82M€ to accelerate critical system engineering – CRYSTAL, starting on May 1st, 2013.

Market Innovation

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

Technical Innovation

CRYSTAL is set up as an ARTEMIS Innovation Pilot Project with the aim to establish collaboration schemes beyond individual project and to speed up technology maturation cycles. Accordingly, the strategy for CRYSTAL technical innovation is based on 4 pillars:

1. Applied on use cases, increase the maturity of existing concepts developed in projects
2. Provide technical innovations on high maturity to fill gaps identified (“technological bricks”)
3. Contribute to the Cooperative RTP 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.

For more information, please contact:

Project Coordination: DI Horst Pflügl, AVL List GmbH, horst.pfluegl@avl.com

Project Dissemination: Mag. (FH) Ingrid Kundner, AVL List GmbH, ingrid.kundner@avl.com

Acknowledgement: The research leading to these results has received funding from the ARTEMIS Joint Undertaking under Grant Agreement N° 332830 and from specific national programs and / or funding authorities.