

H2020 PROPHECY: Platform for rapid deployment of self-configuring and optimized predictive maintenance services

Program/Call Reference, Strategic Priority, Grant Agreement Number, Project Type

H2020-FOF-2017, Factories of the Future, FoF-09-2017, Novel design and predictive maintenance technologies for increased operating life of production systems , Grant agreement no: 766994

Project Summary

The advent of Industrie4.0 provides opportunities for adopting predictive maintenance (PdM), which represents the ultimate maintenance vision for manufacturers and machine vendors. Nevertheless, there are still barriers to successful deployment including data fragmentation, limited data interoperability, poor deployment of advanced analytics and lack of effective integration with other systems. PROPHECY will deliver and validate in real plants a PdM services platform, which will alleviate these issues based on the following innovations: 1) A CPS platform optimized for PdM activities (PROPHECY-CPS), which will enable maintenance driven real-time control, large scale distributed data collection and processing, as well as improved production processes driven by maintenance predictions and FMECA activities. 2) Novel Machine Learning and Statistical Data processing techniques for PdM (PROPHECY-ML), which will be able to identify invisible patterns associated with machine degradation and assets depreciation, while at the same time using them to optimize FMECA activities. 3) Visualization, knowledge sharing and augmented reality (AR) services (PROPHECY-AR), which will enable remotely supported maintenance that can optimize maintenance time and costs, while increasing the safety of maintenance tasks. 4) A PdM service optimization engine (PROPHECY-SOE), which will enable composition of optimal PdM solutions based on the capabilities provided by PROPHECY-CPS, PROPHECY-ML and PROPHECY-AR.

PROPHECY will also establish and expand an ecosystem of PdM stakeholders around the PROPHECY-SOE, which will serve as a basis for the wider uptake of the project's results.

Project Starting Date and Duration / Total Cost – Total EU Contribution

1/10/2017, 36 months / 7.067.765 € - 5.528.318 €

AIT's Role / Principal Investigator/ AIT's, EC Funding

Project Partner/ Prof. John Soldatos (jsol@ait.gr) / 413.125 €

Consortium Partners

Intrasoft International SA, Philips Consumer Lifestyle B.V., ARTIS GmbH, Jaguar Land Rover, Industrial Consulting Automation Research Engineering (SME), oculavis GmbH (SME), Unparallel Innovation, Lda (SME), SENSAP AE (SME), Fraunhofer Gesellschaft zur Förderung der angewandten Forschung e.V., NOVAID ID – Associação para a Inovação e Desenvolvimento da FCT, Mondragon Goi Eskola Politeknikoa Jose Maria Arizmendiarieta, S. Coop., Technische University Eindhoven, MAG IAS GmbH

