

Press Release: H2020 PROPHESY: Lowering the Barriers for Predictive Maintenance

We are proud to announce the kick off the H2020 PROPHESY project (contract No: 766994) on predictive maintenance for future factories. PROPHESY commenced October 1st, 2017 and is destined to develop and validate mature systems that will lower the predictive maintenance adoption barriers for manufacturers and machine vendors. In particular, the project will provide solutions to the issues of data fragmentation, limited data interoperability, poor deployment of advanced analytics and lack of effective integration with other systems at the enterprise and field levels. AIT will contribute background knowledge, platforms and expertise in industrial IoT middleware platforms for data collection in factories, as well as in machine learning and high-performance data analytics.

PROPHESY will deliver and validate (in two complex demonstrators) 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 (PROPHESY-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 (PROPHESY-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 (PROPHESY-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 (PROPHESY-SOE), which will enable composition of optimal PdM solutions based on the capabilities provided by PROPHESY-CPS, PROPHESY-ML and PROPHESY-AR. Service optimization aspects will consider the whole range of factors that impact PdM effectiveness (e.g., OEE, EOL, MTBF and more).

PROPHESY will also establish and expand an ecosystem of PdM stakeholders around the PROPHESY-SOE, which will serve as a basis for the wider update of the project's results, as it will offer to the CPS manufacturing community access to innovative, turn-key solutions for PdM operations.

The PROPHESY consortium comprises leaders in IT, manufacturing and maintenance, including Intrasoft International SA (project coordinator), Philips Consumer Lifestyle B.V., ARTIS GmbH, Jaguar Land Rover, Industrial Consulting Automation Research Engineering, oculavis GmbH, Unparallel Innovation, Lda, 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, Research and Education Laboratory in Information Technologies, Technische University Eindhoven, Athens Information Technology, MAG IAS GmbH and SENSAP Microsystem SA.

