

CHARM

EU project CHARM (Challenging environments tolerant Smart systems for IoT and AI) develops IoT solutions for harsh industrial conditions in the manufacturing industry using ECS technologies, developed to withstand combinations of severe thermal, mechanical and chemical stress. The solutions will be demonstrated in use cases covering condition monitoring, predictive maintenance and real-time quality assurance.

With 37 partners from 10 countries



Project goals and results

- Design and demonstration of new IoT solutions for harsh environments for condition monitoring and automation solutions
- Demonstration of reliable monitoring solutions in six use cases designed for six different industrial manufacturing and service sectors
- Building of capabilities and increasing the competitiveness and global market share of European manufacturing and ECS industry

CHARM

CHARM in a nutshell

Start date: June 2020

Duration: 36 months

Total funding: 29 M€, project budget is co-financed via ECSEL JU, by EU Horizon 2020 and national funding agencies of the participating countries

Partners: 37

Countries: 10 (FI, AT, BE, CH, CZ, DE, IT, LV, NL, PL)

Coordinator: Valmet

CHARM Use Cases

UC1: a) Air Quality Measurements and
b) Autonomous Driving (Sandvik)

UC2: Condition monitoring of paper mill equipment (Valmet)

UC3: Real-time machining workpiece control system (Tornos)

UC4: Real-time monitoring of solar panel manufacturing lines (AMAT)

UC5: Nuclear plant maintenance and decommissioning (ÚJV Řež)

UC6: Virtual Prototyping Professional Digital Printers (Canon PP)

www.charm-ecsel.eu

Coordinator: Heikki Kettunen, Valmet
Daily admin: Mikael Sundholm, Spinverse