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MIDIH – Manufacturing Industry Digital Innovation Hubs

MIDIH is a project funded by the European Union's Horizon 2020 research and innovation programme. It is a "one stop shop" of services, providing industry with access to the most advanced digital solutions, the most advanced industrial experiments, pools of human and industrial competencies and access to "ICT for Manufacturing" market and financial opportunities. MIDIH leverages networks of local Competence Centers, each specialized in peculiar aspects of the CPPS/IIOT (Cyber Physical Production System / Industrial Internet of Things) technologies and is able to attract, mentor and nurture local Manufacturing SMEs towards Industry 4.0 projects, experiments and business.
MIDIH is carrying out 3 Lighthouse Experiments in three relevant manufacturing industrial sectors: Automotive, Cutting Tools and Steel.

SOLUTION PACKAGES

- DIHIWARE PLATFORM
- MIDIH OPEN PLATFORM
- CPS/IOT COMPONENTS
- METHODOLOGIES
- DEMONSTRATORS & EXPERIMENTS

SERVICES

- SKILLS BUILDING
- BUSINESS
- TECHNOLOGICAL

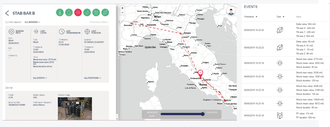
The Lighthouse Experiment in the Automotive sector is led by CRF, with two different Business scenarios carried on in FCA plants and logistics. Here, CPS/IoT Technologies have been adopted, and, leveraging on MIDIH Open Platform and on the methodologies developed within the project, it has been possible to enable the optimization both of Inbound Logistics Processes (Smart Supply Chain scenario) and Industrial Processes (Smart Factory scenario) in FCA.

CRF LIGHTHOUSE EXPERIMENT - SMART SUPPLY CHAIN



Inbound Logistics containers' parameters measured by sensors:

- GPS position
- Temperature
- Humidity
- Vibrations

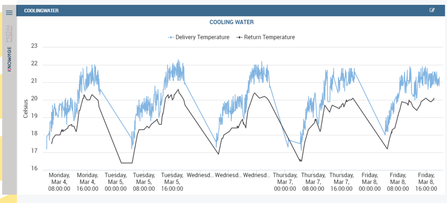


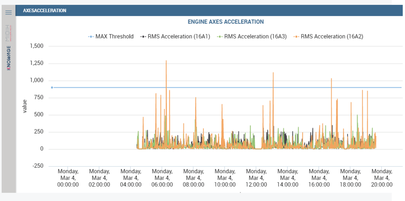
CRF LIGHTHOUSE EXPERIMENT - SMART FACTORY



Welding process' parameters measured by sensors:

- Temperature, pressure and capacity of flows
- Acceleration and speed of robots slides' bearings





MIDIH OPEN PLATFORM ALLOWS:

- **Data Visualization:** enables the user to contextualize and understand parameters trends;
- **Data Monitoring:** gives to the user the possibility to have notification in case parameters are out of the predefined range, in order to understand in advance potential issues or abnormal behaviour.

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