# CONNECTED TOOLS FOR MACHINERY AND LUBRICANTS

# FROM PERIODIC OIL SAMPLING TO REAL-TIME ANALYSIS

DSi offers complete solutions to migrate from off-line oil analysis to real-time monitoring:

- Assistance to select the appropriate(s) probe(s)
- Design and manufacturing of hydraulic interfaces
- Installation of probes and gateways
- Data saving and real-time analysis tools
- Development of HMIs
- Automatic generation of incident reports
- Expertise and after sales services

REAL-TIME PREVENTIVE
MAINTENANCE TOOLS
BASED ON IOTs



#### Typical parameters:

- Viscosity
- Water content
- Wear contamination
- Aeration level
- Oil aging
- Temperature, pressure and oil level



#### **Applications:**

- Gearboxes and transmissions
- Engines and E-Powertrains
- Power generators
- Wind turbines
- Any hydraulic systems where oil quality is a key issue

#### Machinery Health Assessment (MHA):

MHA is a software to supervise health of industrial equipment. Information coming from each probe is collected, saved, and analyzed in real-time.

Data transmission is performed through an industrial Gateway to a local server or to the cloud.

MHA software includes a graphical user's interface where data of all probes are displayed.

Alarm levels can be selected and additional hardware can be installed to generate sound or visual alarms in the working area, and/or stop automatically equipment when a failure is detected.

Weekly/Monthly reports are available with graphic interface to visualize critical information such as oil viscosity, dielectric constant, the increase of contamination in wear debris, etc.

Dedicated algorithms allow forecasting maintenance programs, based on real parameters collected on-line.

Real-time assessment offers 2 major benefits:

- An immediate response when an incident occurs
- Improved predictive maintenance programs with oil changes when oil properties
  have reached critical levels in terms of aging and particles content







Industrial machinery



A wide range of IOTs available to measure oil properties and detect wear incidents



Real-time display of critical parameters and setting of alarm levels

#### Your Benefits:

- No more periodic oil sampling no more logistics with oil samples
- Spare 3-5 days delay to get your oil analysis results!
- Real-time detection of oil quality and incidents => prevents severe damages
- Possibility to program limits and generate alarms
- Predict the exact timing for oil change with dedicated algorithms
- Reduced maintenance costs



#### **STAY CONNECTED TO**



## AT ANYTIME, ANYWHERE!







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