

## INDUSTRY 4.0 TRACK

### The areas of technology search within MIT Forum Poland Acceleration program

VETASI is focusing on software-based solutions (preferably cloud technology) or software/hardware solutions in the following sectors and areas:

#### 1) Utilities (mainly electrical energy and water):

- i. Application of VR in Asset Detection and maintenance processes,
- ii. Application of Big Data in predictive maintenance including failure detection,
- iii. Asset health diagnostics on the basis of analyses of the photos sounds, e.g. leak detection based on big data analyses of the water system,
- iv. Asset network health diagnostics on the basis of photos taken by drones,
- v. Mobile technologies in asset management and maintenance processes automation;

#### 2) Transport (railway transport, airport management):

- i. Maintenance of railway infrastructure and vehicles using VR and mobile technologies,
- ii. Application of Big Data/VR/Mobile technologies in predictive maintenance including failure detection, as well as in airport administration security.

#### 3) FM (Facility Management) services for buildings, production lines, intelligent buildings etc.

- i. Connected FM – IoT solutions for gathering data from various facilities' BMS systems together with Big Data/AI for energy usage and working conditions (temperature, air quality) optimization in offices, retail space or other commercial facilities,
- ii. Predictive maintenance algorithms were most FM clients will find useful research/products/services in cloud into predicting failure modes on manufacturers', lighting, AC products.

#### 4) Mining Industry (coal, precious metals, i.e. gold and platinum, diamonds):

- i. IoT solutions for collecting data from mining machinery for predictive maintenance and extraction reliability, failure management and predictive maintenance of mining equipment,
- ii. Application of Big Data in predictive maintenance, including failure detection based, among others, on photos.