Customer Use Case

Condition Monitoring with AI on conveyors (International Airport UK)

- Wireless Vibration monitoring (motor + gearbox + chain)
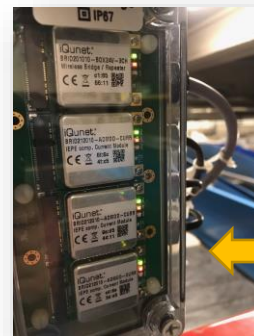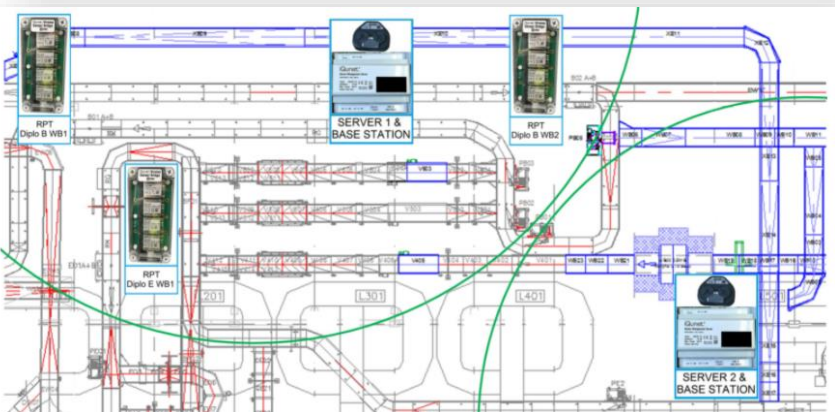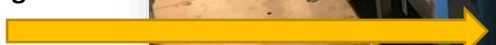- Wireless Current waveform monitoring – MCSA (Var. Speed Drives)

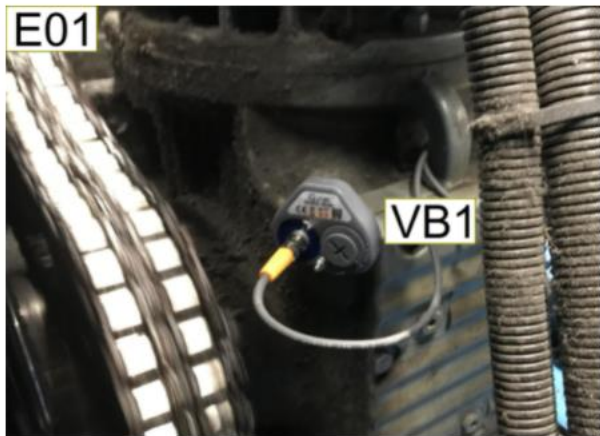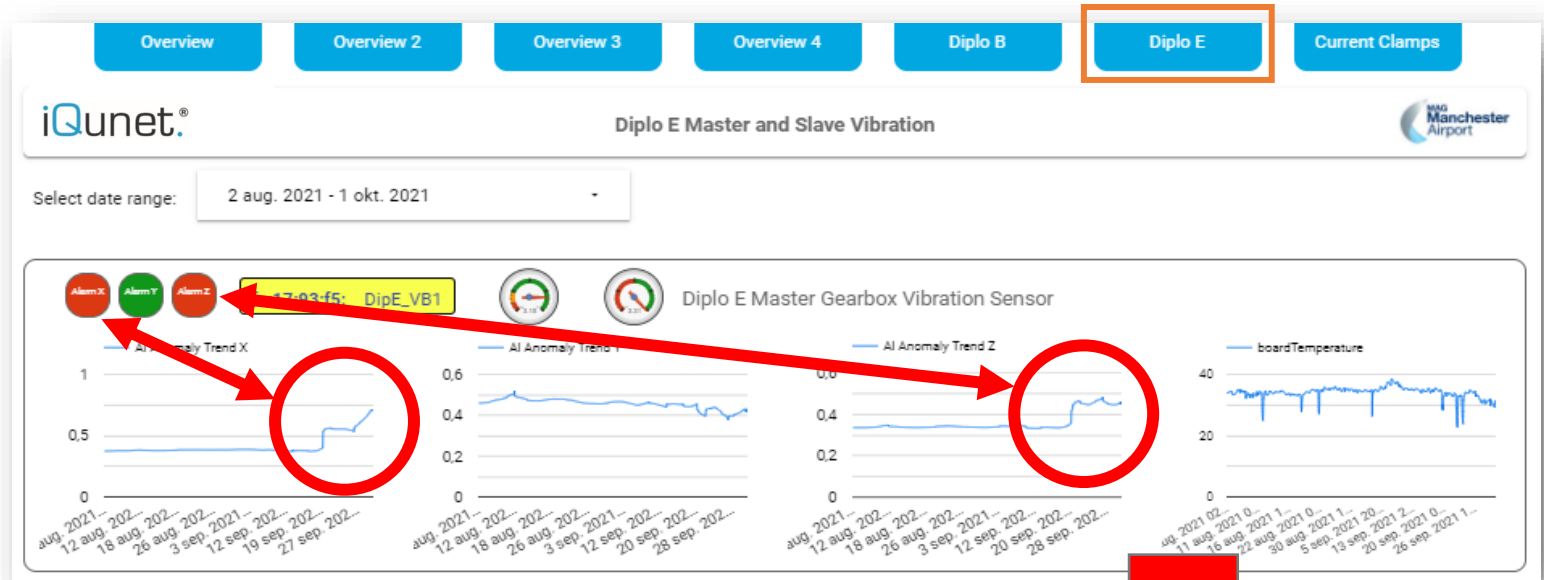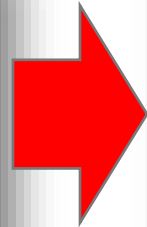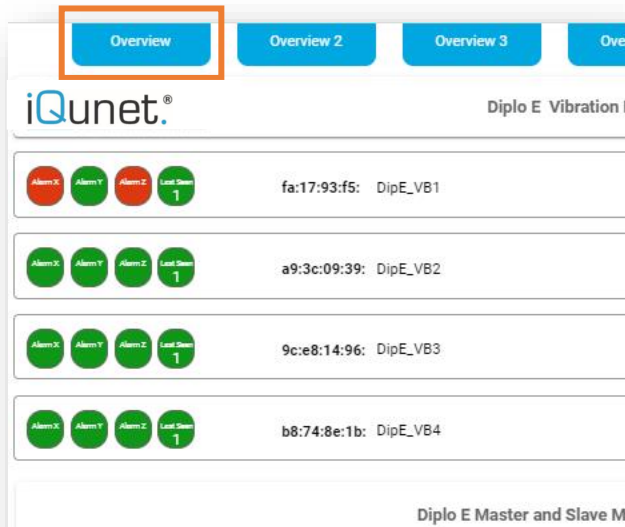# Use case: Back Bone conveyor monitoring Bagage Handling

Sensor Base Station
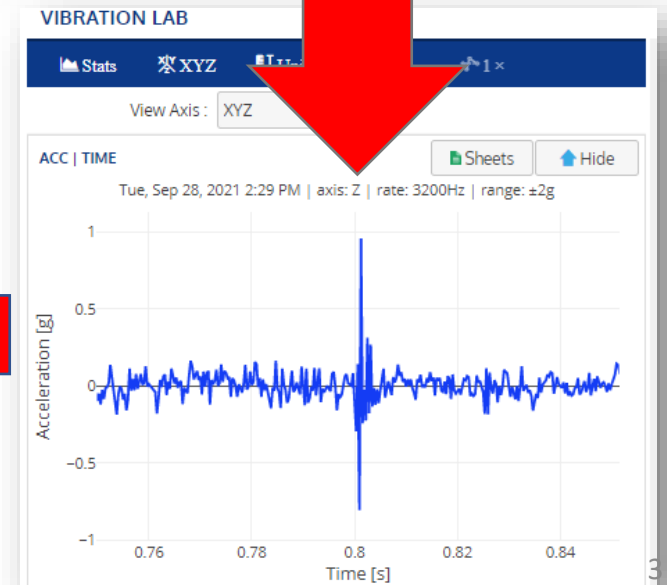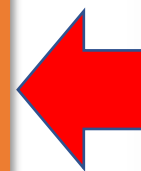
iQunet Edge Server

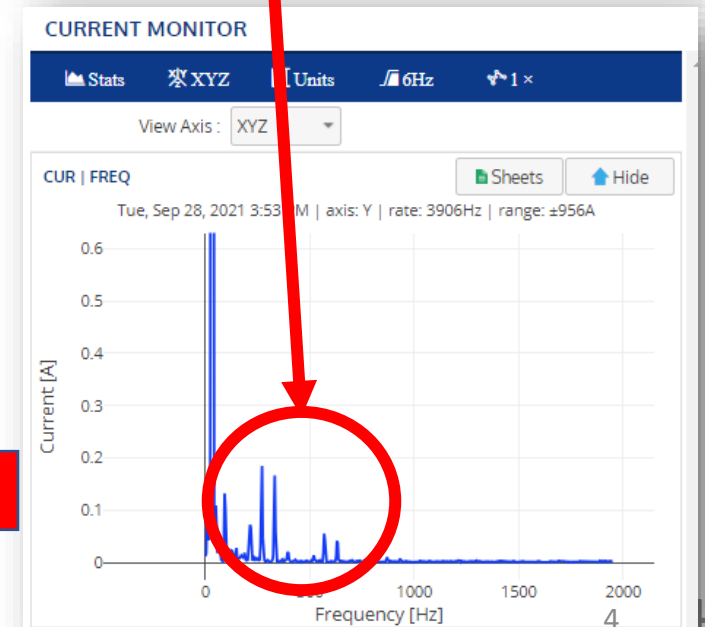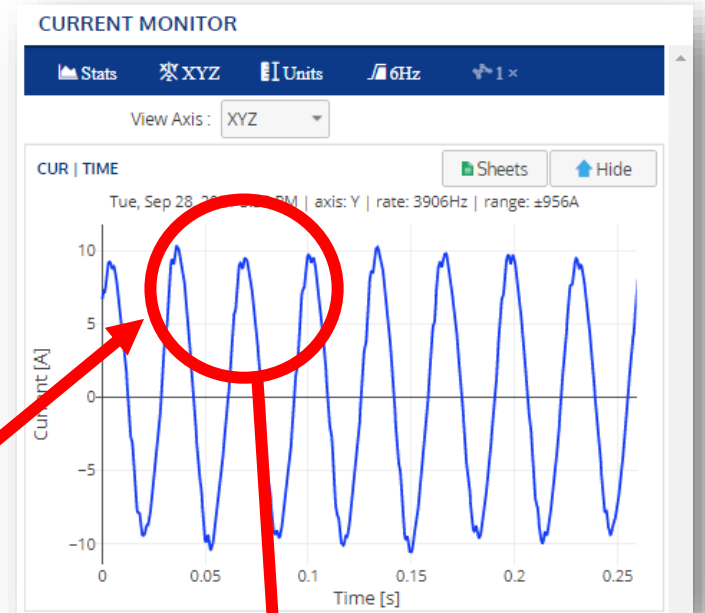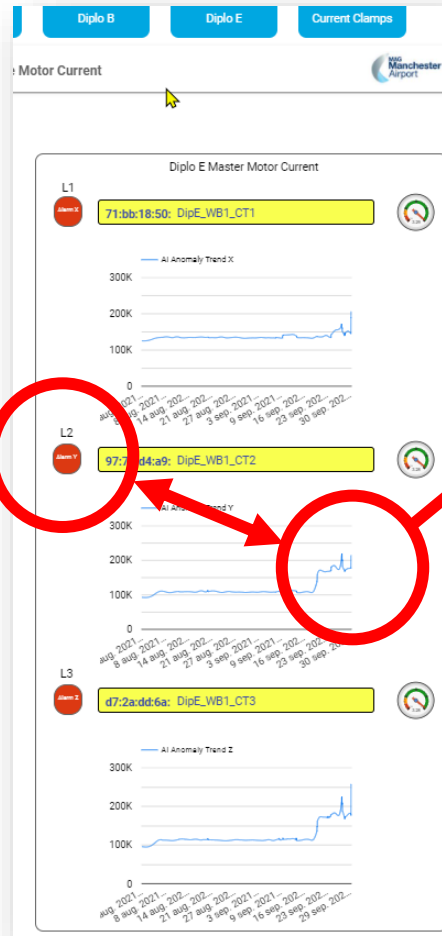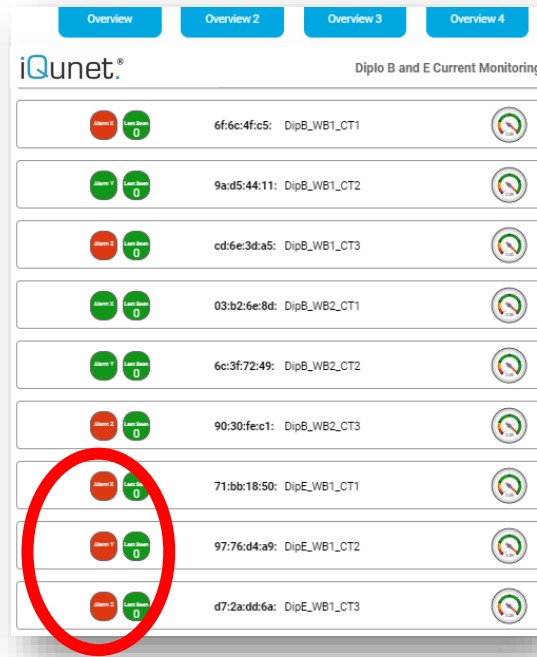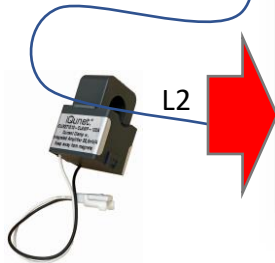**Wireless Bridge (Current Clamps)**

Vibration Monitoring

Impact detected (early warning)
- Recommended actions:
  - Check chain links
  - Check sprocket teeth
  - Lubricate and check change
- Follow behaviour to exclude gearbox inside teeth damage
- Follow up anomaly trend graphs

Wireless Motor Current Waveform Monitoring

Motor Current [A] harmonics detected

- Recommended actions:
  - Follow up anomaly trend in time
  - Follow up harmonics in freq. domain
  - If quick sustainable increase, prepare for motor repair

iQunet Anomaly Monitor ("engine" behind the dashboards)

Sensor list
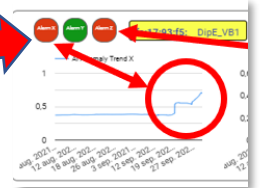- 3ax vibration sensors + T°
- Current clamps (waveform)

ML type

Machine Learning (unsupervised learning)
Trained on data from ±1000 initial sensor measurements = VERY ACCURATE MONITORING

MAINTENANCE ACTION REQUIRED !

Historical data

Spectrum graphs
Spectrum 3D graphs
RMS graphs
Kurtosis graphs