

Panel Session 6

New Instrumentation for PHM

Sponsored by



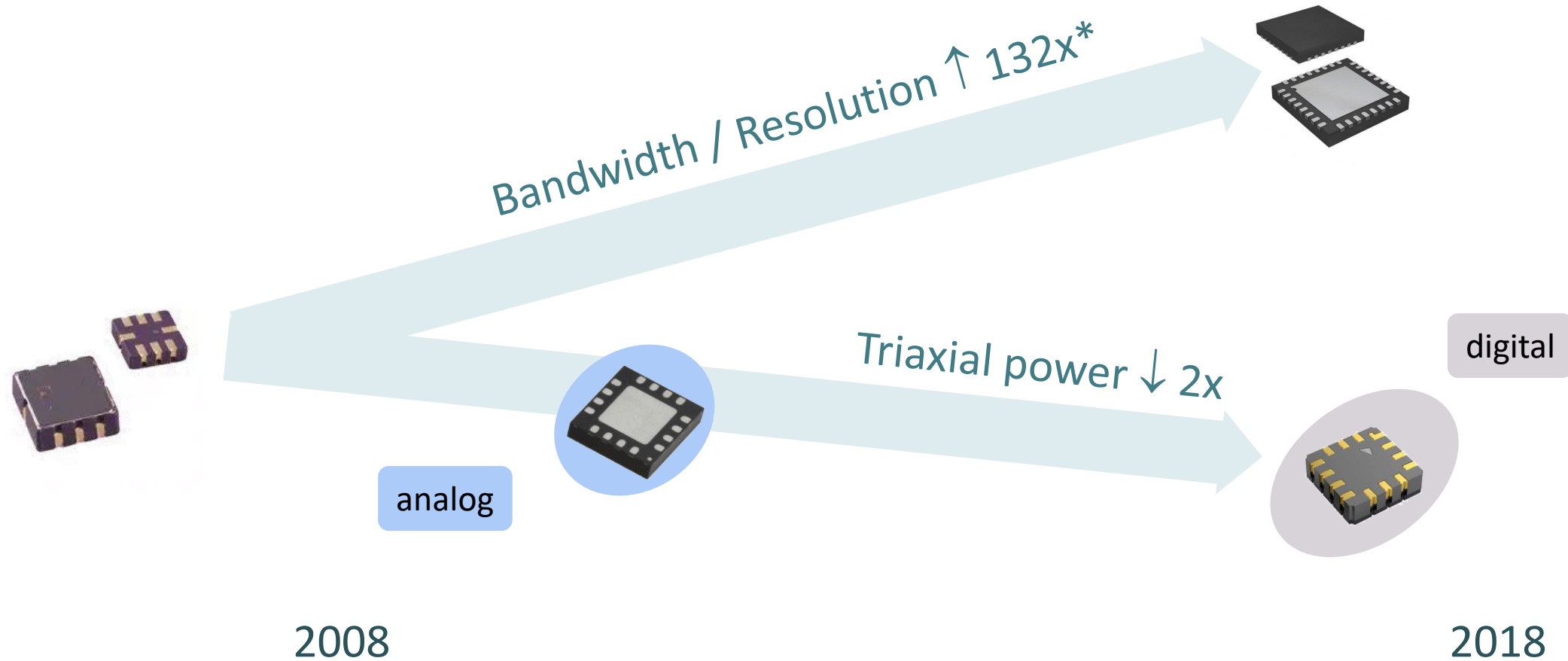
Annual Meeting of the PHM Society

Philadelphia, PA

September 26th, 2018



MEMS Accelerometer Performance Improvements



*Accelerometers with high frequency response, at least 10kHz +3dB bandwidth

The *Digital* Condition Monitoring Sensor...

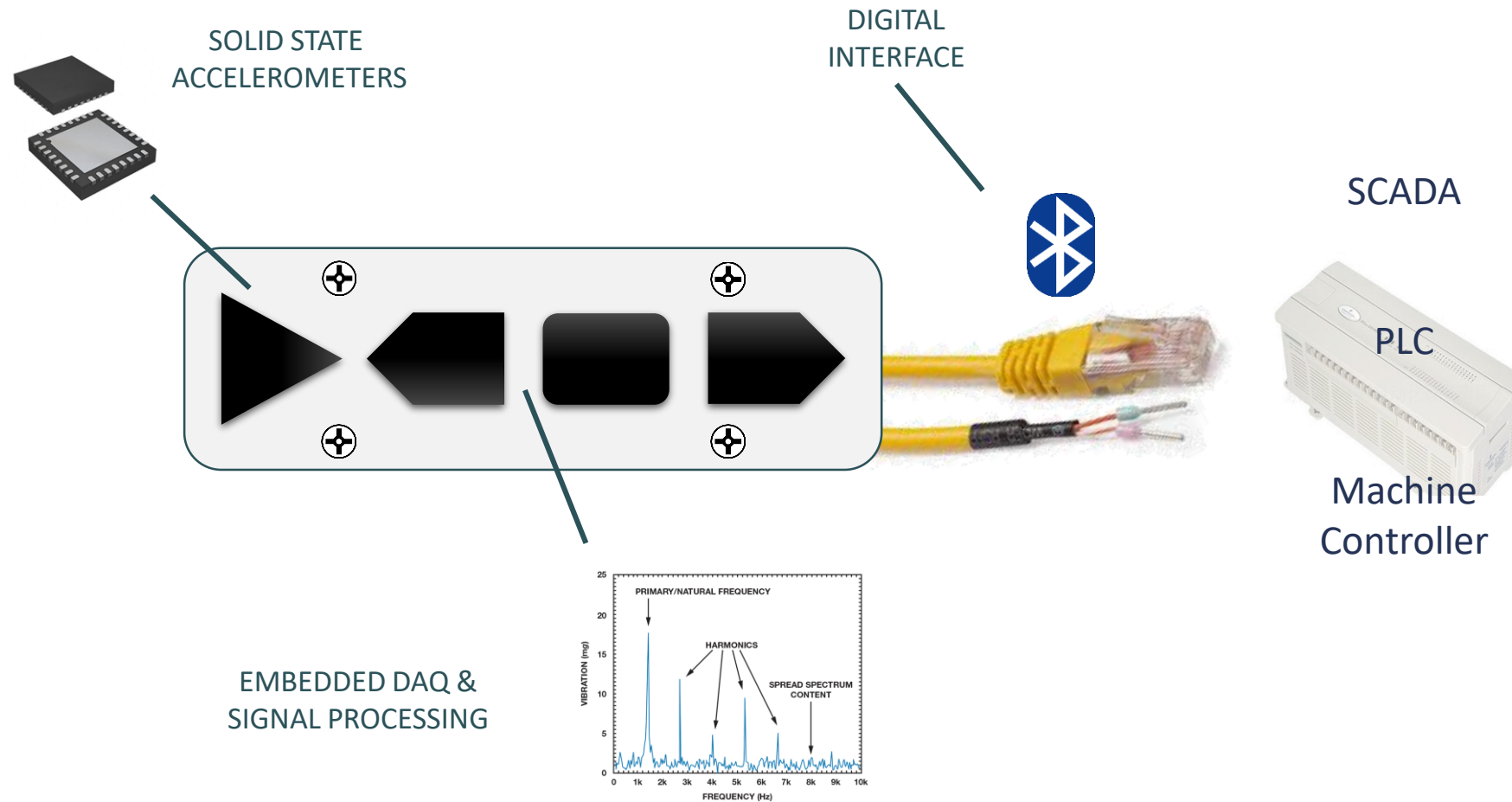
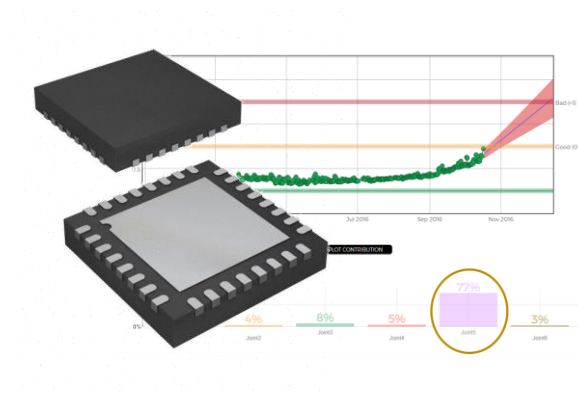


Exhibit A: The Explosion in Wireless (*Digital*) Sensors



IIoT Technologies applied to Condition Monitoring



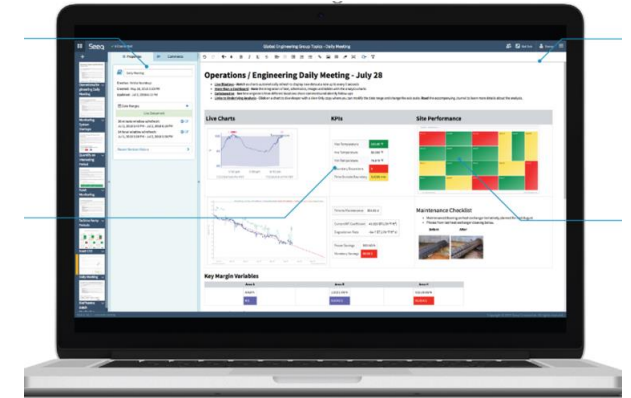
Chip Scale Sensors

MEMS accelerometers enable approaches higher levels of integration, smaller form factors and predictive digital interface



Wireless Networks

Lower deployment costs for continuous on-line monitoring



Data dashboards

Cloud or server based data visualization and analysis

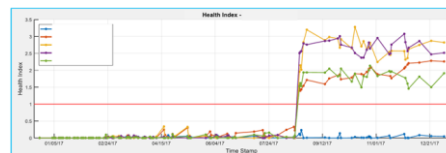
Development Process for New Machine Health Solutions...



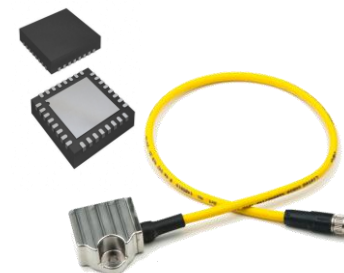
Assessment
SME Engagement



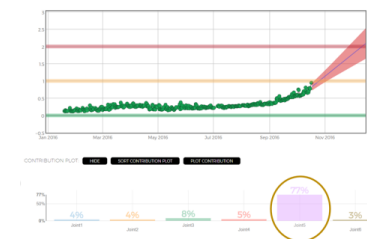
Data
Acquisition



New Health
Indicators



New sensor
development



Monitoring, Diagnostics
and Prognostics



The Machine Instrumentation Group

A collaborative network of services to support development of a Machine Health program

Our mission is to implement condition monitoring solutions for machine health problems that resist traditional technologies...

- Data engineering for Health Indicator development
- Data analysis platforms
- Field instrumentation
- Sensor definition, design and build





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Thank you!

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