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Infineon offering for condition monitoring & predictive maintenance **Teaser**

Manuel Hollfelder & Julia Fichte (IFAG PMM SMD STM EA)
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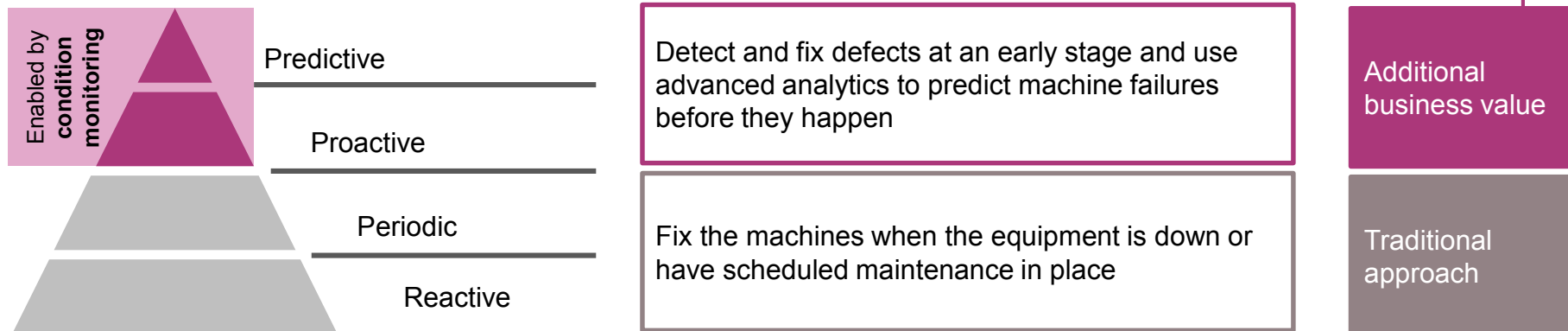


Condition Monitoring and Predictive Maintenance unlocks new business potential in many industries

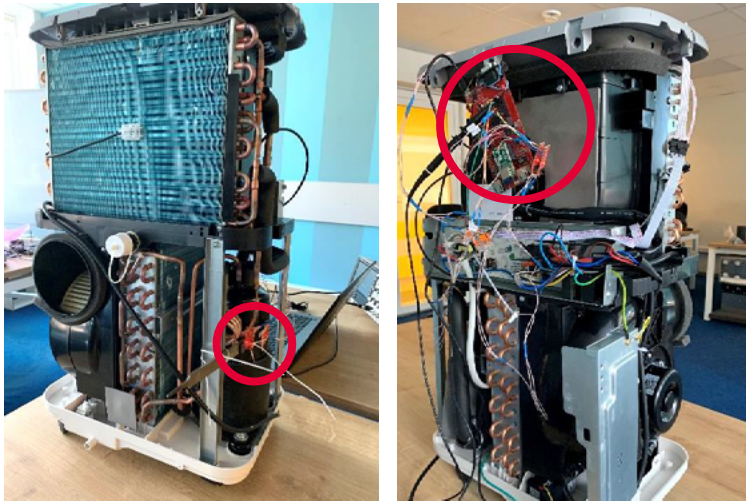


Business opportunities for predictive maintenance

- > **Reduce down-time** through optimized maintenance avoiding inconveniences for tenants and additional costs for device providers and building operators
- > **Digitize and optimize maintenance services** to extend device lifetime
- > **Detect faulty maintenance** based on condition monitoring
- > **Increase transparency on device usage** by collecting usage data
- > **Create additional value** for customers with features on system level, e.g. people flow management



With Infineon products critical elements of an air conditioning can be monitored



- > **Compressor, fans/motor, and piping** elements most likely to fail with **critical impact** on the overall system
- > **Condition monitoring & predictive maintenance** can prevent failing

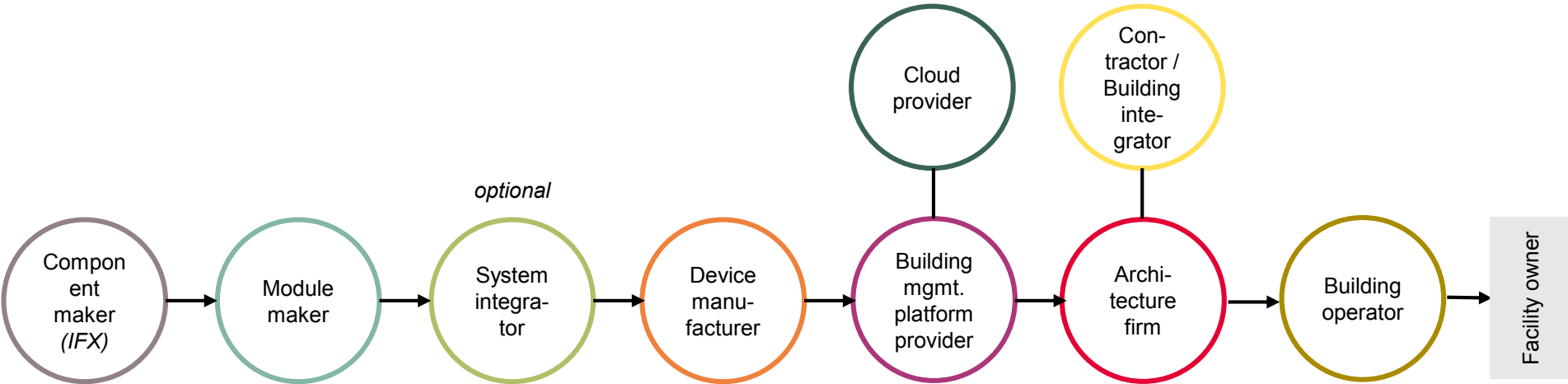
Functionalities of demonstrator

- > **Air flow measurement** at compressor with XENSIV™ DPS368 Barometric Pressure Sensor
- > Fan & compressor **current measurement** with XENSIV™ TLI4971 Current Sensor with XENSIV™
- > **Vibration & position monitoring of the compressor** TLI493D-A2B6 3D Magnetic Sensor
- > XMC4700 XMC™ 32-bit Arm® Cortex® microcontroller and **Wi-Fi connectivity**
- > **Secured connection** with OPTIGA™ Trust M
- > **Graphic user interface** illustrating changes in operating conditions – provided by Klika Tech
- > **Anomaly score and data intelligence** based on condition monitoring – provided by Klika Tech

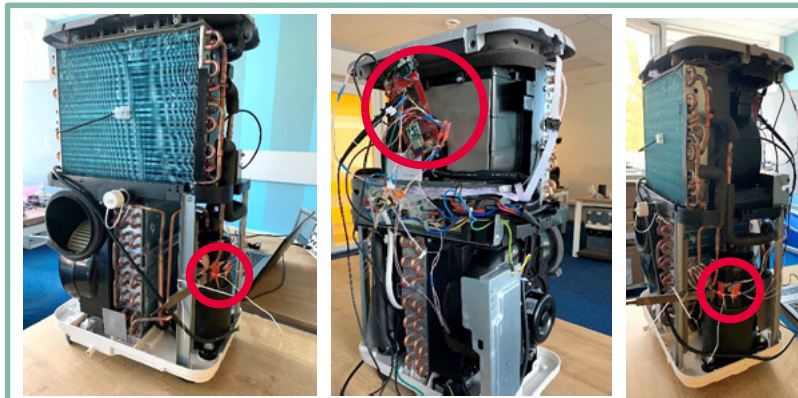
We need to partner up to offer end-to-end solutions for the Smart Building market



Generic value chain / ecosystem overview



The partner approach has already proved successful in the case of Smart HVAC systems



- > System-level demonstrator showcasing **value add of Infineon sensors** for condition monitoring and predictive maintenance in an HVAC system
- > **Detected changes in current consumption** and other parameters and translated it into an anomaly score to trigger alerts



Infineon

- > Sensor and power hardware expertise
- > Strong footprint in power ICs and sensors



- > System integration
- > Software for condition monitoring and predictive maintenance




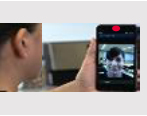
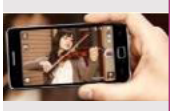


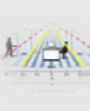




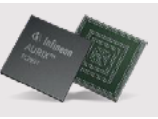








AWS

- > Cloud for data processing and analytics
- > Analytic tools

Infineon provides a variety of products to make Smart Building devices smarter and more reliable



Microphone	Pressure	Environmental	3D Radar	3D ToF
 No distortions	 Best-in-class resolution	 World smallest form factor	 Highest energy efficiency	 Best-in-class resolution
 Receive clear audio signals	 Measure height	 Measure CO2	 Biometrics	 3D mapping
 Smart Ears, Smart Feeling, Smart Nose			 Smart Eyes & Sixth Sense	
Magnetic & Current Sensors	Connectivity and RF	Microcontroller	Embedded Security	Power IC Solutions
 High variety of types and applications	 Backhaul enablement	 Functional safety	 Hardware security & authentication	 Best-in-class solutions
 Motor control, switches, metering, etc.	 5G	 Industry 4.0, Autonomous cars, etc.	 TPM, mobile phone, edge devices, etc.	 Power supplies & control, LED driver, etc.



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CONTACT

EBV Elektronik GmbH & Co. KG
D-85586 Poing
Im Technologiepark 2-8
Phone: +49 (0)8121 774-0
Fax: +49 (0)8121 774-422