

# **Strategic Asset Integrity Management – Inspect to Monitor to Process Optimization**

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The concept for deployment of sensor technology to augment and/or enhance manual or automated inspection capabilities to improve operational efficiencies is by no means a newfangled idea across all industrial sectors. As wireless technology becomes more ubiquitous in industrial settings and development of miniaturized hardware with robust computing power advances, access to more and better data becomes the expectation. With regard to the NDT space, asset owners are trying to make use of their precious, and rarely inexpensive, inspection data to understand more about how their assets are performing. In fact, these assets are talking all the time, but until recently, unless there was an NDT technician standing by 24/7 with a thickness gauge or a DR panel, the asset's voice might never be heard. Which is why today, asset owners are getting smart about risk ranking assets and using inspection data to tell them where to monitor. From there, they can use near real-time thickness and temperature data and overlay it with process data to understand when, how, and why the asset is corroding or eroding – and hopefully remediate or replace it before there is an unplanned issue. This presentation will review wireless UT sensor technology and encompass case studies for how asset owners are leveraging their inspection strategies and moving toward a new age of data-based asset integrity and structural health monitoring.