

## Customer's Challenge:

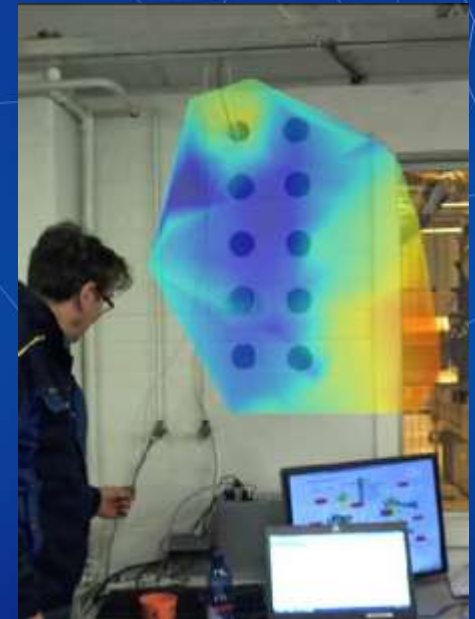
- Sound source localization is a challenging task in the field of sound & vibration, from the product development stage to the end off line control of products
- Conventional sound intensity measurement/analysis is a tedious process and it has a poor spatial resolution
- Low frequencies and reactive sound fields pose considerable difficulties to conventional intensity measurement

## Solution:

- Direct measurements of particle velocity with a Microflown PU probe
- Scan&Paint sound field measurement and visualization tool with excellent spatial resolution and full acoustic bandwidth coverage (20 Hz to 10 kHz)

## Customer Benefits:

- Particle velocity is not highly affected by background noise or reflections. Also sound intensity measurements can be taken in situations with a high sound pressure to sound intensity ratio e.g. in an industrial manufacturing environment or a small space like car interior
- Scan&Paint system is a fast and easy engineering tool for troubleshooting or benchmarking all kinds of objects
- Probe captures both sound pressure and particle velocity, hence the particle velocity field and the sound intensity field are measured directly
- Close to a rigid object acoustical particle velocity sensor and Scan&Paint software can be used for fast non contact measurement of the structural velocity field normal to the structure surface. With a reference accelerometer the system can be used for determination of Operational Deflection Shapes.



VTT Contact:  
[lasse.lamula@vtt.fi](mailto:lasse.lamula@vtt.fi), tel: + 358 40 768 0823