

# Deployed Wear Debris Analysis (WDA)

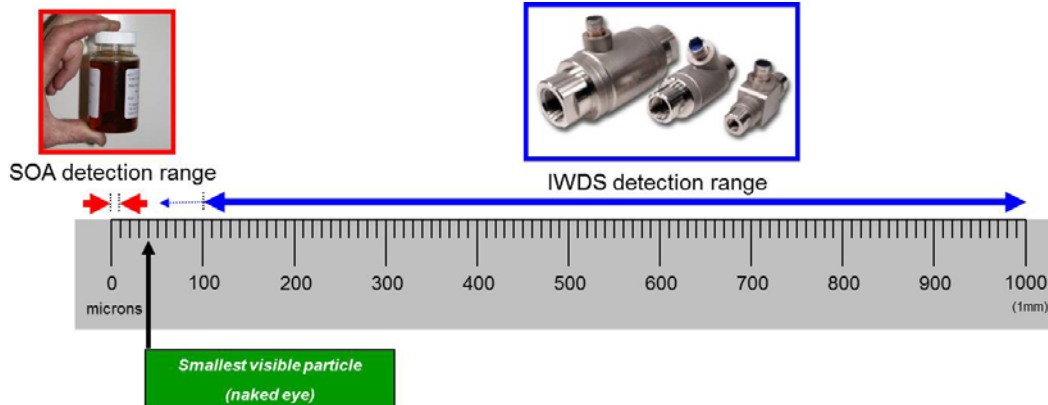
DSTO looking at novel applications of **inductive wear debris sensors**.

Broad particle detection range = increased confidence of fault detection

Two main focuses (both TRL 5):

## 1. Sump Debris Quantifier (SDQ).

- improved design recently manufactured
- Takes oil from gearbox, quantifies metallic debris, captures all debris >60 micron, fine filters lube and returns to gearbox
- Enables flushes to occur when deployed without wasting lube
- Provides instant info about metallic debris (size and count)



# Deployed Wear Debris Analysis (WDA)



Drains into DQ using existing drain hose

Oil is then fine filtered and pumped back fill point

Output:

- Count and size metallic debris
- Captures all debris
- Fine filters oil

# Deployed Wear Debris Analysis (WDA)

## 2. Chip detector debris quantification.

- Improved design recently manufactured
- Uses compressed air jets to remove debris from chip detector
- Counts and sizes debris

