

Building Systems : Compliant, Yet Underperforming



Asset Management Is Our Business



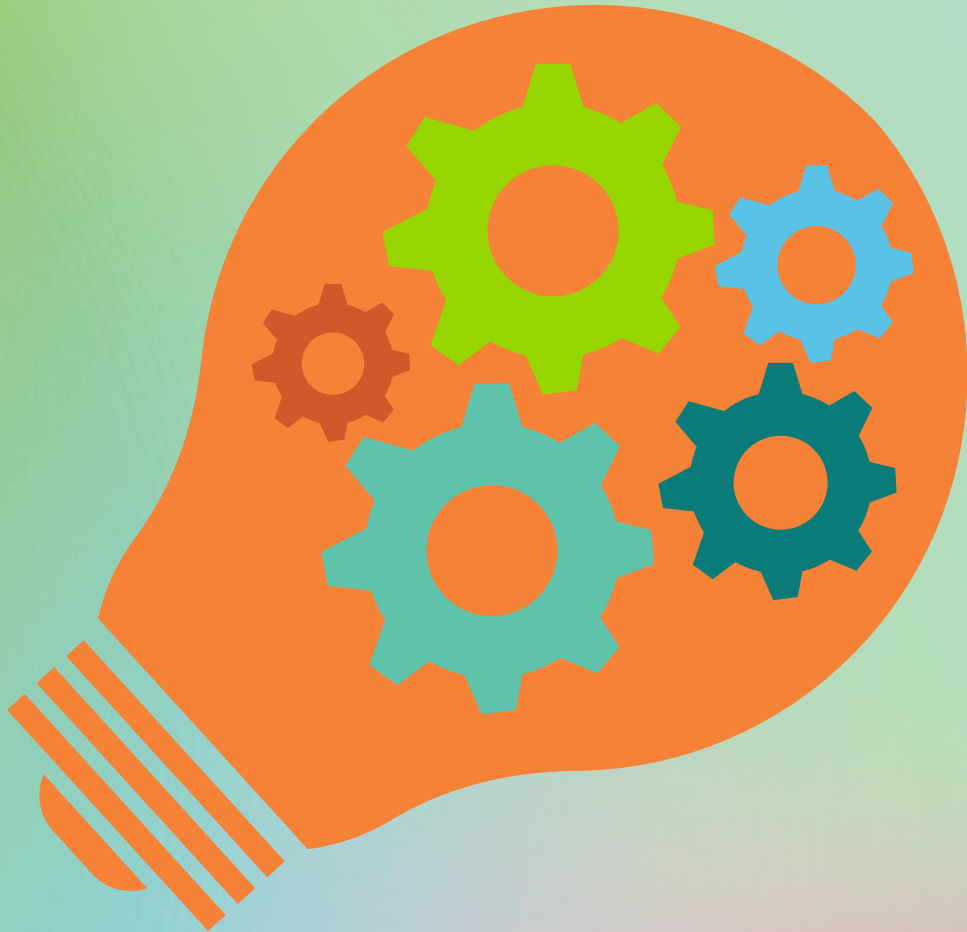
August 2026



Social Infrastructure
& Citizen Services

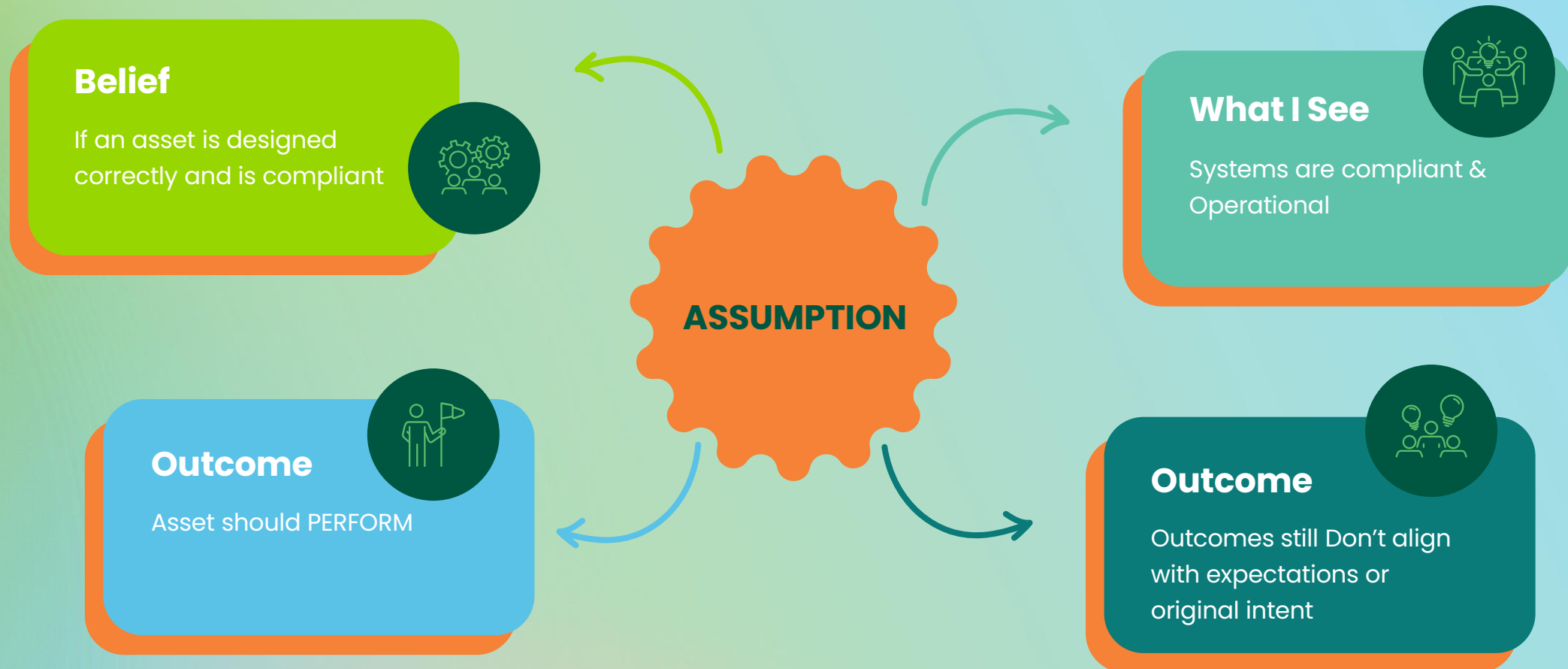
Downer 

Compliance & Performance



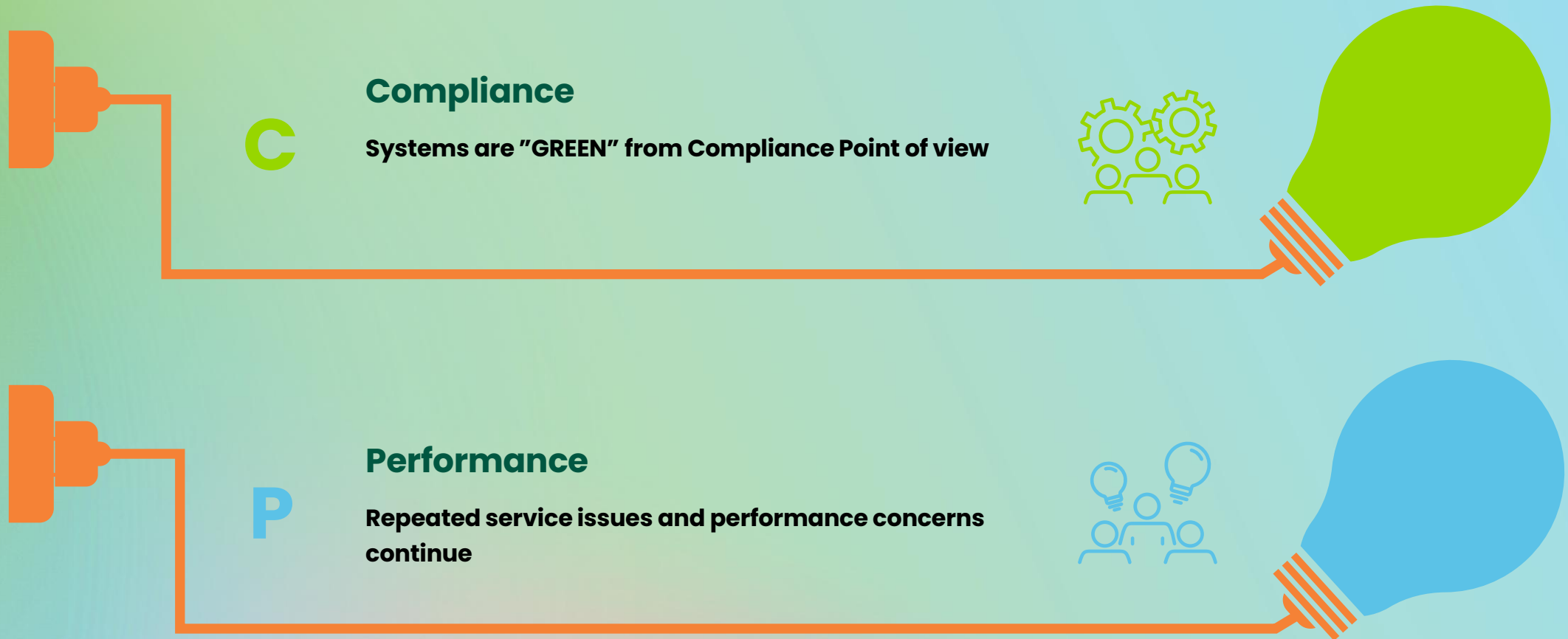
If **Compliance** proves **performance**, why do so many **compliant systems** struggle once they are in operation?

The ASSUMPTION



Not criticising design or maintenance – But is there a gap in the model of validation?

Compliance is not evidence of Performance

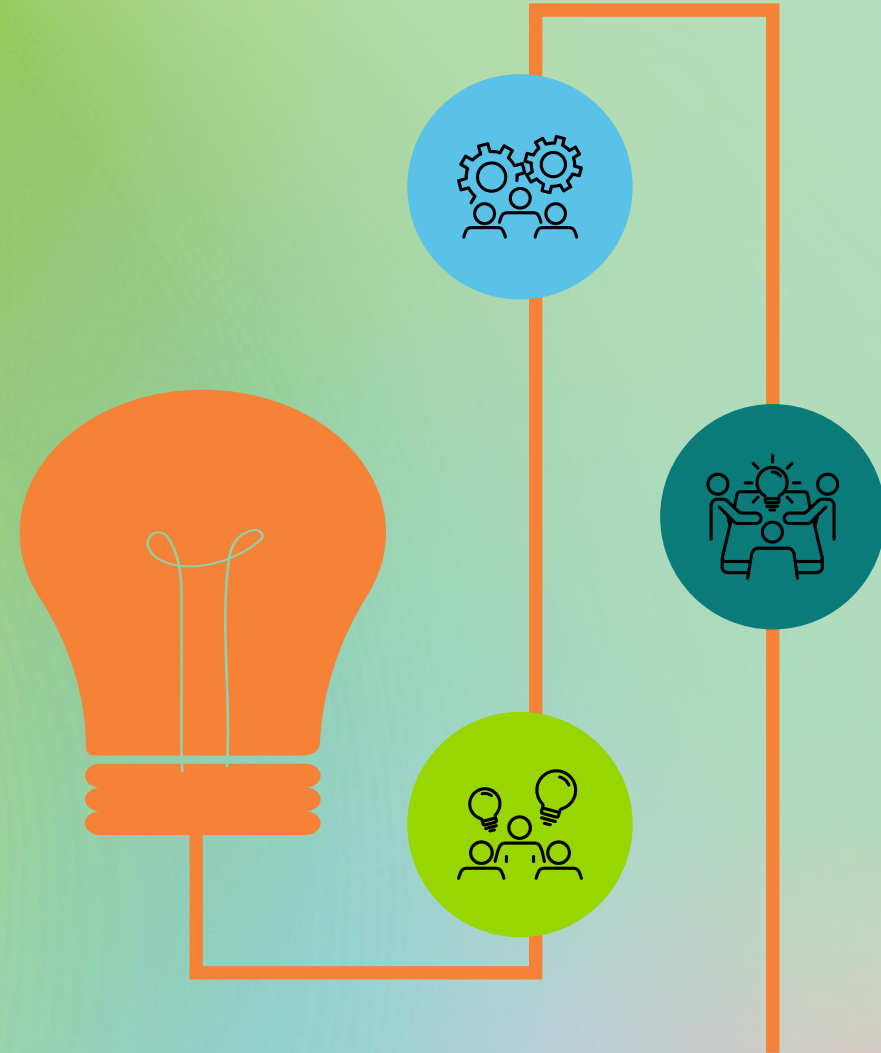
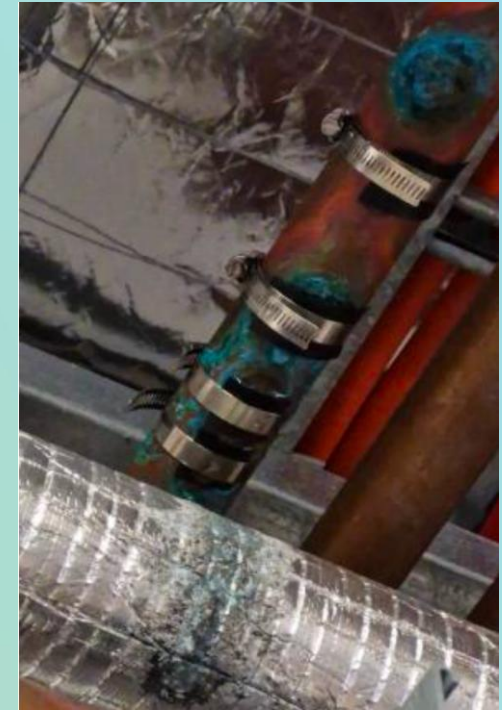


"Compliance with statutory maintenance and performance obligations needs to be demonstrated"

Examples

Water Systems

Standards may set an upper velocity limit (2.0-1.5m/s) without a corresponding minimum. In our inspections, near-stagnant flow (<0.5 m/s) has coincided with pitting corrosion.

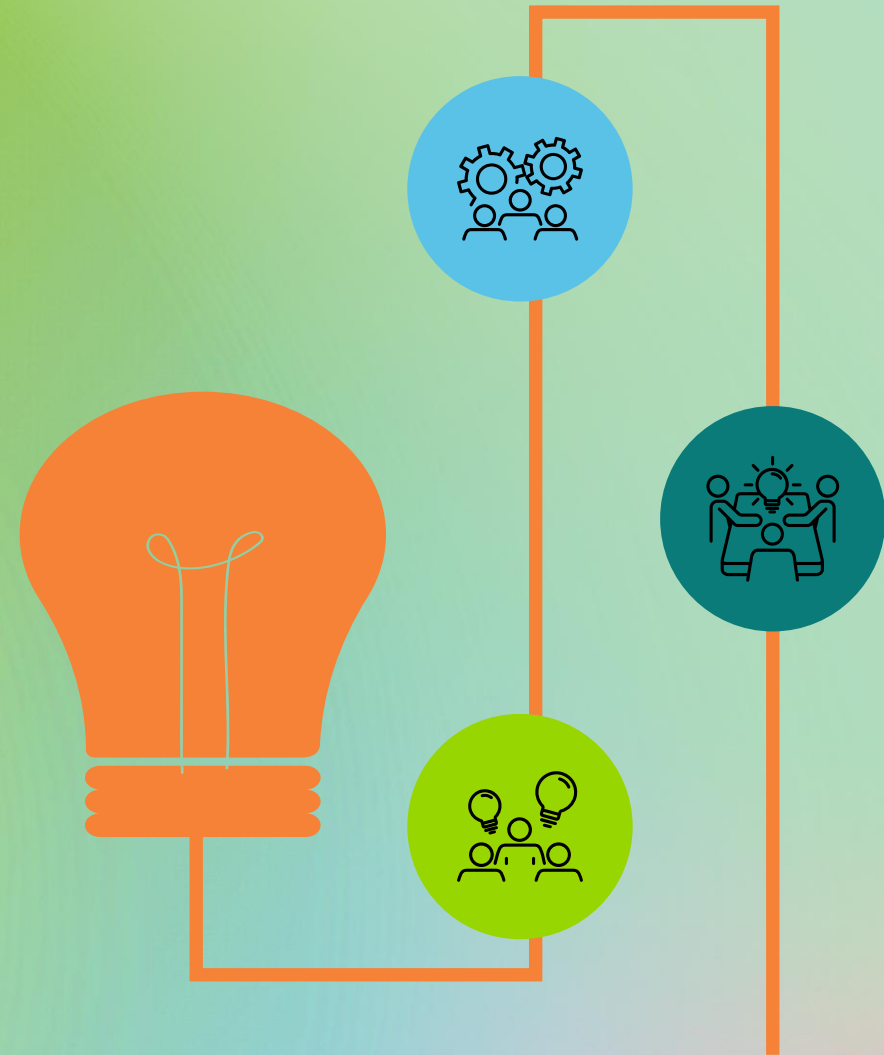


Examples

Vertical Transport

On one site, every statutory lift inspection and maintenance task was completed; the lifts remained registered and compliant.

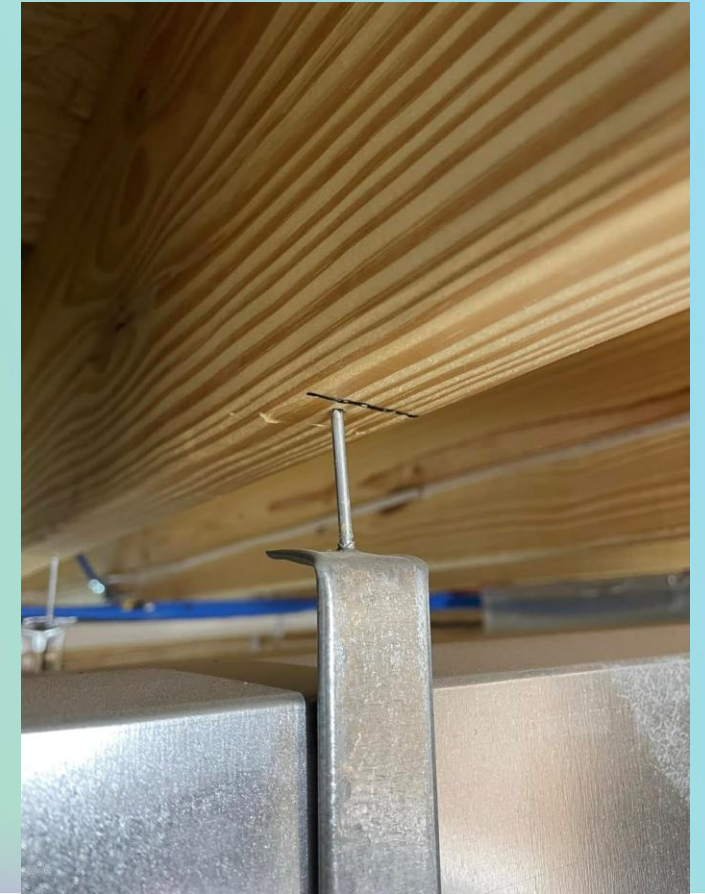
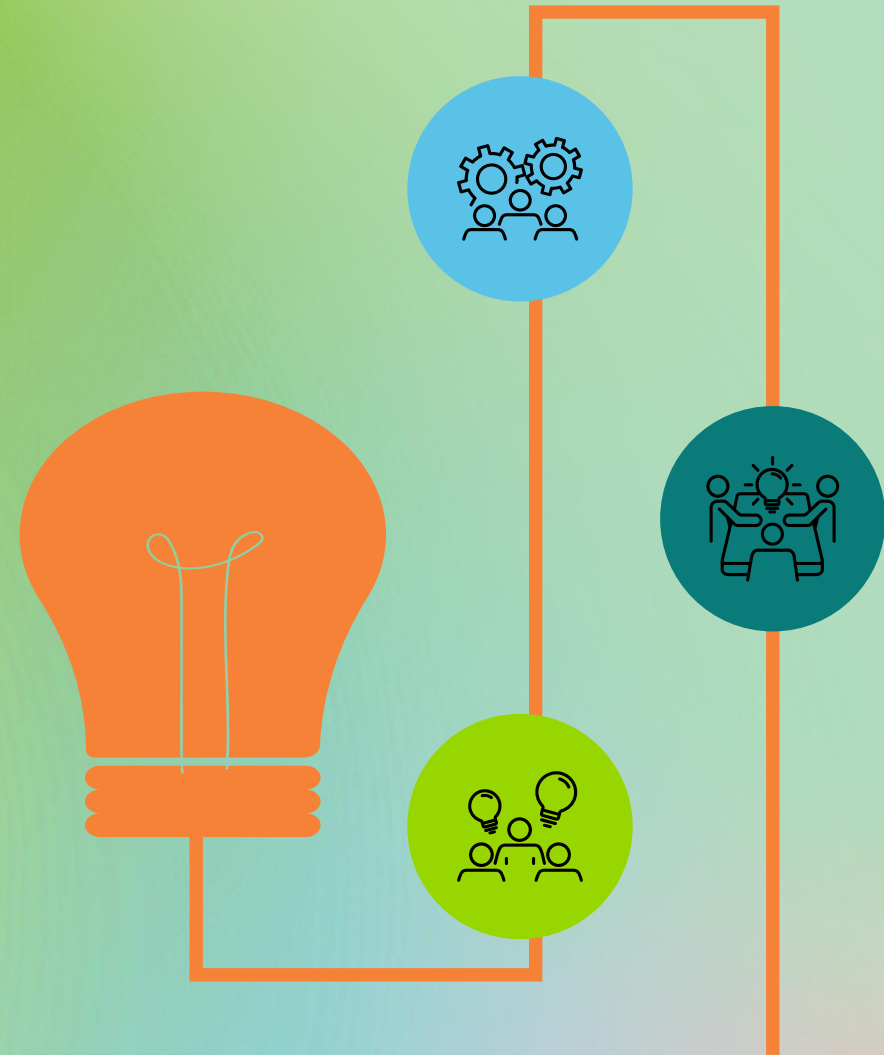
Yet breakdowns and service interruptions continued—showing that statutory maintenance alone does not guarantee reliable performance under **real operating demand**.



Examples

HVAC Systems

At the time of construction, the ductwork was assessed and formally signed off as compliant. A later review against the applicable standard found that securing the ductwork with nails was non-compliant.

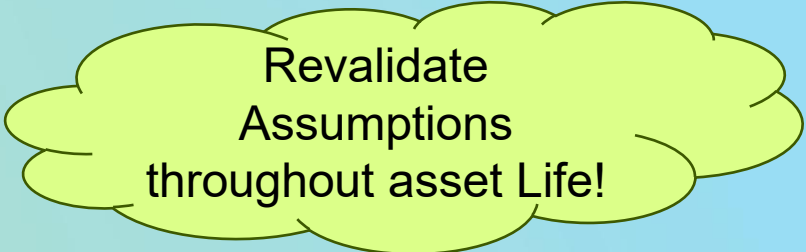


Key Takeaways



Define the full
Performance
envelope!

Shift 1: Meeting a Standard's defined upper limit does not guarantee performance- we must consider the full operating range and what potential problems it can cause.



Revalidate
Assumptions
throughout asset Life!

Shift 2: Design assumptions may no longer hold after years of service as demand, use and operating conditions evolve.



Verify compliance and
Operational outcomes
independently!

Shift 3: A compliance sign-off records an assessment—it does not replace verification against the applicable standard.

Call To Action



Point in time compliance



Lifecycle validation of real-world performance

Make lifecycle performance validation a shared responsibility—from design and commissioning through operation—using real data to confirm that compliant systems continue to deliver their intended outcomes.

Thanks