

Transforming Maintenance: From Reactive Responses to Proactive Strategies



Maintenance plays a critical role in driving operational success at the dawn of a new era for the water sector. Our latest productivity webinar, hosted by Reson8 Partner Dean Wheeler and Phil White, Chief Maintenance Officer at United Utilities, focused on the often-overlooked maintenance strategies.

This synopsis highlights vital insights from the webinar, exploring approaches to maximise asset performance while managing tight maintenance budgets and timelines.

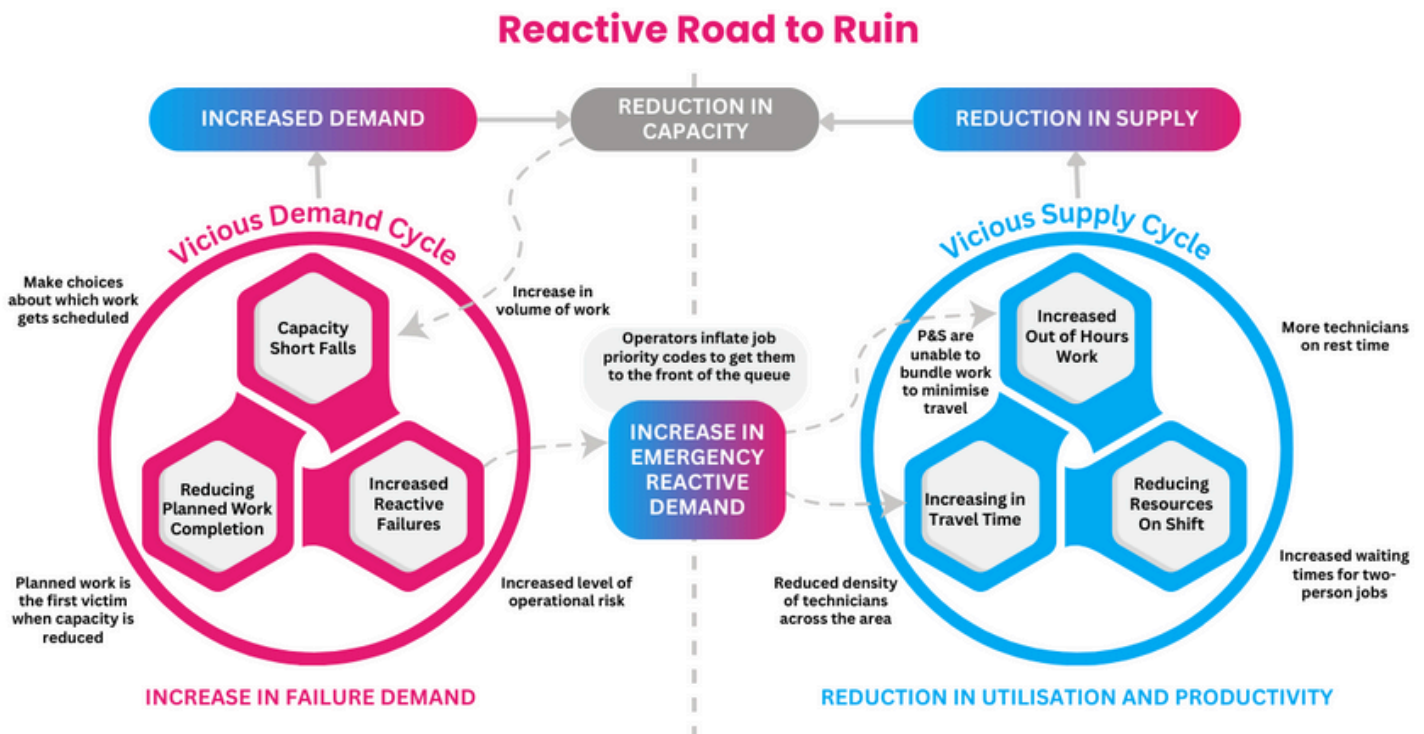
“As we progress our maintenance journey, we’re finding more defects, but they are smaller, take less time to repair, cost less, and pose less operational risk.”

**Phil White,
United Utilities, Chief Maintenance
Officer**

Creating Capacity: Eliminating Waste

Maintenance theory is simple; making it a reality is much more demanding.

One of the greatest obstacles facing water companies is the **‘Reactive Road to Ruin,’** where urgent firefighting overwhelms long-term strategic maintenance efforts.



To break out of this cycle, it's crucial to adopt a proactive mindset, focusing on Lean thinking. By removing non-value-added activities and understanding the root causes of asset failures, you can unlock significant capacity and drive operational improvements.

Three steps to enhance maintenance P&S

1 Planning: Ensuring work can be completed efficiently and effectively when dispatched to the field teams. Effective planning can eradicate non-value-added activities, releasing spare capacity.

Do P&S have a relentless focus on work order visit resolution rates? Ensuring that permits are in place, spares are on site, lifting equipment is available etc. sounds obvious, but it is one of the major causes of lost capacity.

2 Challenge Planned Maintenance: Regularly assess if your planned maintenance prevents asset failures. If it doesn't address a defect mode, rethink why you are doing it.

Frontline teams often tell us they don't understand why they do certain planned maintenance activities, as they never fail or have hardly run since the last activity. Time-based maintenance is easy to plan, but we can be wasteful for assets with variable run times like pumps.

3 Identify Common Defect Modes: Understand the root causes of asset failures, especially repeat failures and integrate those insights into your maintenance plans to drive continuous improvement.

Manufacturers establish routines for asset maintenance. However, the actual performance of assets in the real world can differ significantly. For example, CHP systems can encounter poor-quality gas inputs, accelerating deterioration. If the gas quality is not improved or the frequency of maintenance is not increased, following the manufacturer's guidelines will still result in reactive failures.

“Eliminating activities that are not value-add is probably one of the biggest things you can do to be effective.”

**Dean Wheeler,
Reson8, Partner**

The Illusion of Compliance: Track What Matters

It's easy to fall into the trap of thinking that just because maintenance work is completed on time, it's meeting quality standards.

The real challenge is ensuring maintenance is done according to the correct standards. Water companies can ensure they get value from planned maintenance rather than simply ticking boxes by focusing on well-designed KPIs, data collection, and effective use of data insights.

During the session, we explored tracking two key KPIs in detail:

1 Planned Maintenance Yield

Effective maintenance plans are designed to identify defects before they impact performance. Measuring the number of 'follow-on' jobs raised from planned maintenance provides insights into its effectiveness. Ideally, organisations should aim for approximately 30% of maintenance hours to focus on reactive maintenance that prevents asset failures before functional issues arise.

2 Condition Data

Collecting maintenance data from planned tasks serves two purposes. It allows organisations to assess whether tasks were completed according to standards and enables earlier intervention for assets starting to deteriorate.

Effective KPIs are only one part of the productivity puzzle. Maintenance managers must also ensure that data is both captured and used effectively.

Collect High-Quality Condition Data

Ensure frontline teams can quickly gather data from planned tasks using drop-down menus and simple input methods. This data is essential for early intervention and asset health improvement.

Show Field Teams You're Listening

Regularly review and act on the data field teams provide. Use it to adapt maintenance plans, demonstrating their input is valued and making data collection a continuous feedback loop.

“One of the things that buys your technicians in is if you start using that data. They need to know they are collecting it for a reason.”

**Phil White,
United Utilities, Chief Maintenance Officer**

Feed maintenance data back to teams in an engaging way to reinforce the importance of field data capture and show how it improves their work environment.

Maintenance Leadership: Lead the Culture Change

Strong leadership is crucial for driving a culture of proactive maintenance. As the industry faces increasing pressure due to an ageing asset base and challenging OpEx demands, maintenance leadership needs to take a broader view that involves collaboration across functions. Leaders must ensure that their teams are equipped to handle preventative strategies rather than constantly reacting to crises.

Foster Cross-Functional Collaboration

While effective leadership is vital to learning from maintenance mistakes and instilling a commitment to proactive practices, **addressing maintenance challenges is not the sole preserve of maintenance managers and their teams.**

Operations teams need to provide accurate data, data teams need to ensure quality reporting, planning and scheduling is effectively completed, maintenance subject matter experts must design appropriate tasks, procurement guarantees the availability of spares and parts...and the list goes on.

Industry Inspiration: Develop and Educate Your Workforce

Follow United Utilities' example by investing in training your staff on maintenance fundamentals. Recognising this challenge, they have invested in developing their workforce in maintenance fundamentals. To date, over 1,300 employees have undergone training, with more planned.

Ensure even those who support maintenance teams are equipped with up-to-date technical knowledge, enabling them to challenge common misconceptions and contribute to a proactive culture.

“We aim to instil the maintenance basics into our teams to enable better decision-making across the board.”

**Phil White,
United Utilities, Chief Maintenance Officer**

Build a Maintenance-Ready Workforce

Measuring the effectiveness of maintenance activities is essential to ensuring they deliver value. Educating staff to understand waste, training them in effective planning, and developing a leadership stance that drives a proactive culture will significantly improve maintenance performance.

If you'd like to discuss how we can help your water company develop a design-led, proactive maintenance strategy, get in touch with Dean Wheeler (dean.wheeler@reson8.group).

Get in touch