

Insight

The 2022 Maintenance Manager Report

Trends and insights from hundreds of Maintenance Managers across the globe, plus tips and advice from our maintenance experts

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Introduction

Welcome to The 2022 Maintenance Manager Report from Add Energy.

Following a turbulent two years filled with both uncertainty and opportunity, we felt it was the perfect time to review where our profession is across the globe, understand what challenges or opportunities Maintenance Managers are facing, and predict what changes lie ahead of us.

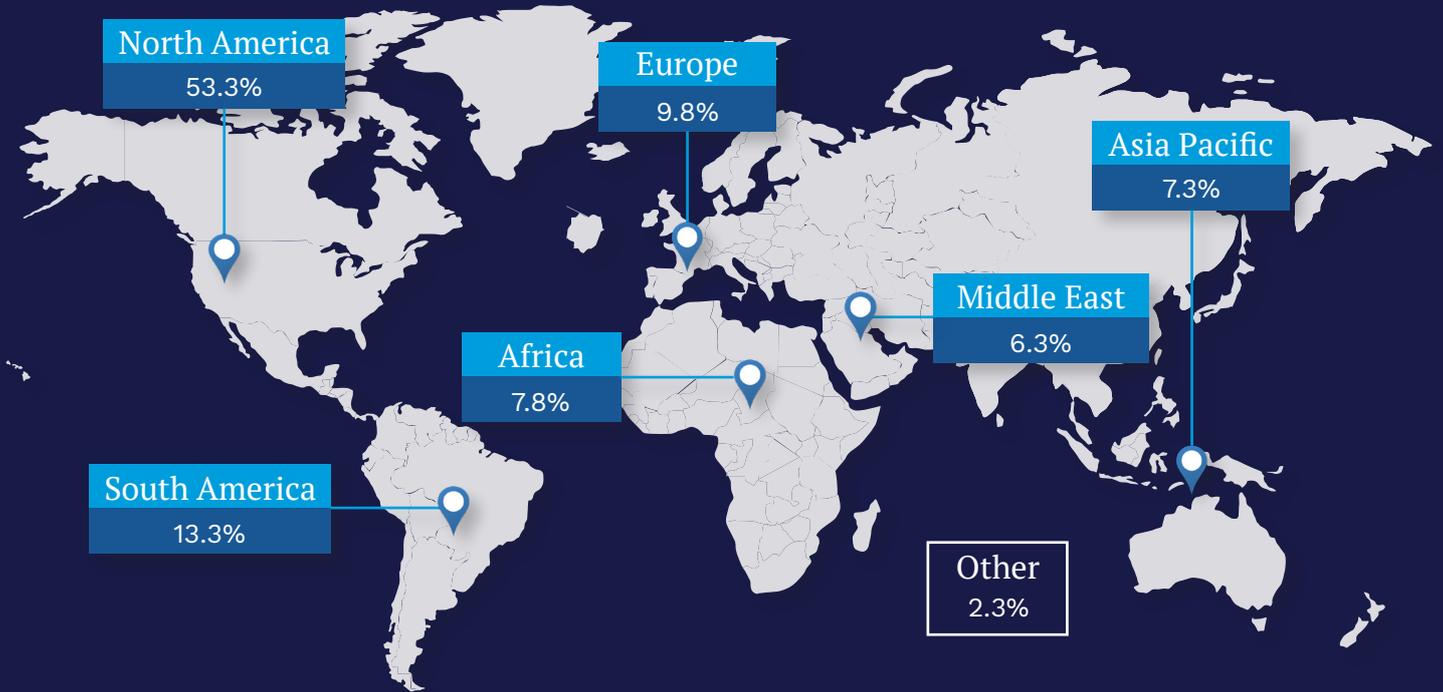
By uncovering insights from maintenance professionals across different countries and different sectors, and providing helpful tips and guidance based on our team's experience, we hope that this publication will encourage, inspire and facilitate positive change.

Peter Adam

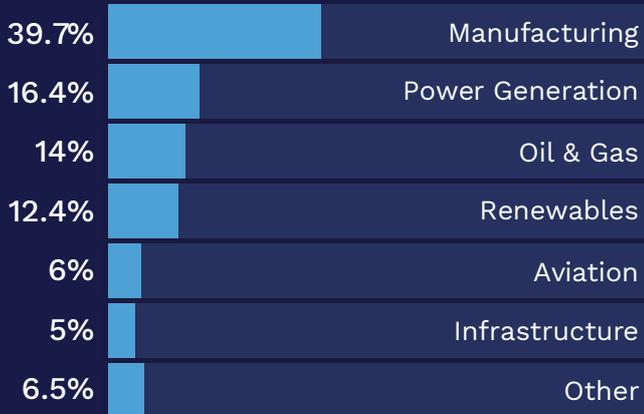
Executive Vice President of Asset and Integrity Management, Add Energy

Who We Surveyed

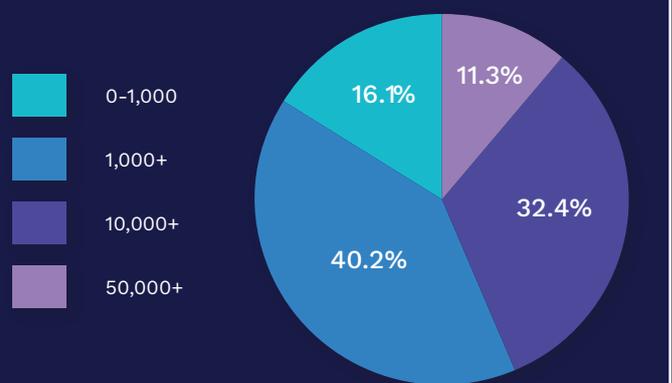
Locations



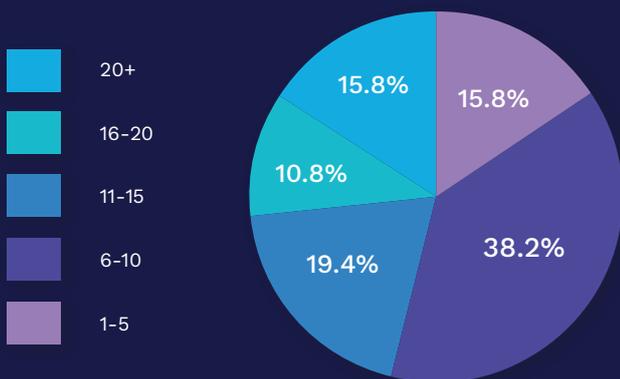
Industry



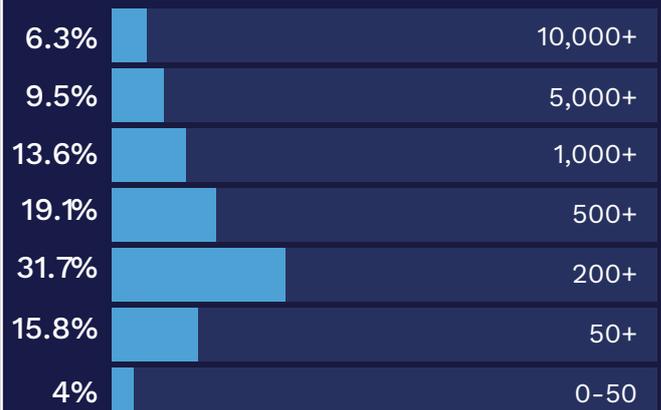
Size of Asset Register



Years of Experience



Company Size



The Effectiveness of Maintenance

Team & Strategy

Team



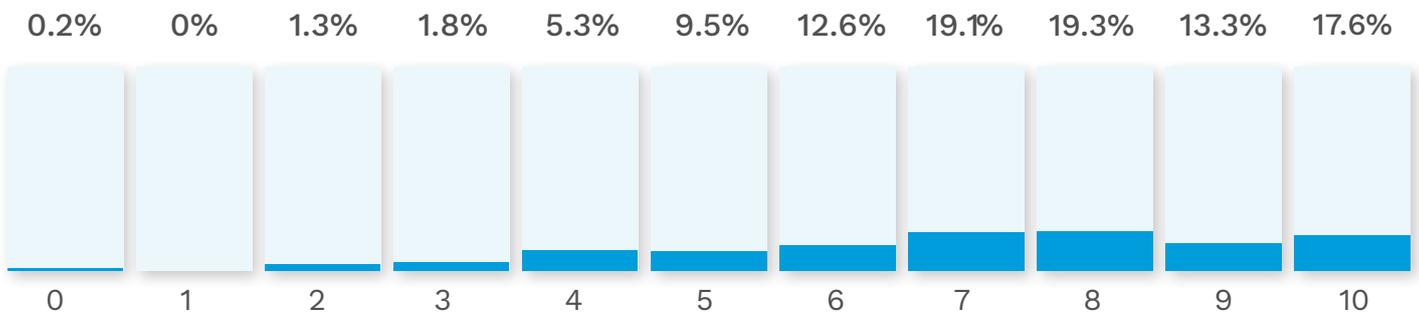
of Maintenance Managers rate **their team** as highly effective

Strategy

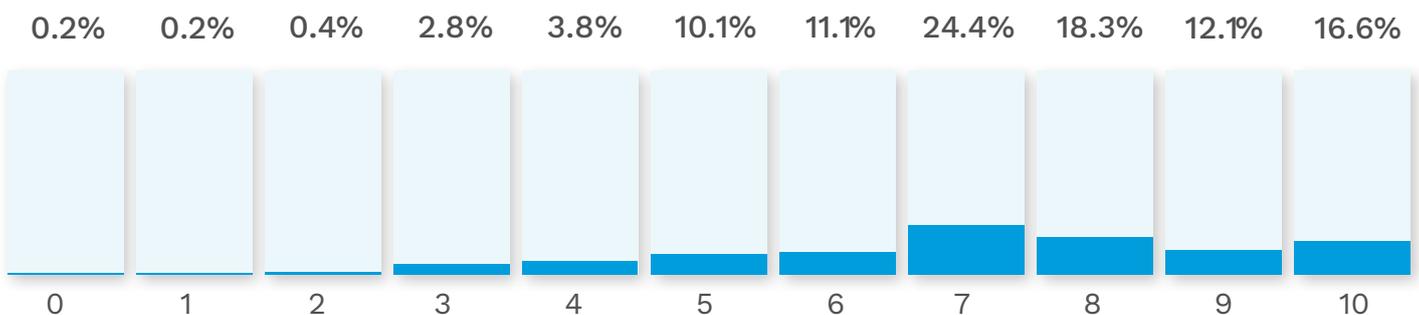


of Maintenance Managers rate **their strategy** as highly effective

In your opinion, how effective is your maintenance team?



In your opinion, how effective is your maintenance strategy?



Add Energy Analysis

Over 50% of Maintenance managers have rated their team as highly effective and just over 47% rated their strategy as highly effective. **A strong maintenance team is led by a strong Maintenance Manager**, which can be a very rewarding job, but it can also come with huge challenges and pressures around effective management of costs, time, safety, efficiencies, and much more.

While big picture strategy planning is essential to operations, it is also important to adopt practices into your daily habits to ensure your team feel motivated and supported, allowing them to perform as best they can. **Here are some tips;**

- Ensure your morning meets and planning meetings are as efficient as possible
- Understand your unplanned breakdowns and set plans in motion to review the maintenance and failure history with your team with a view on how to improve the maintenance routines and reduce future failures
- Be supportive to everyone in the team, be aware of their individual workloads and make each person feel they are important and that their input is appreciated

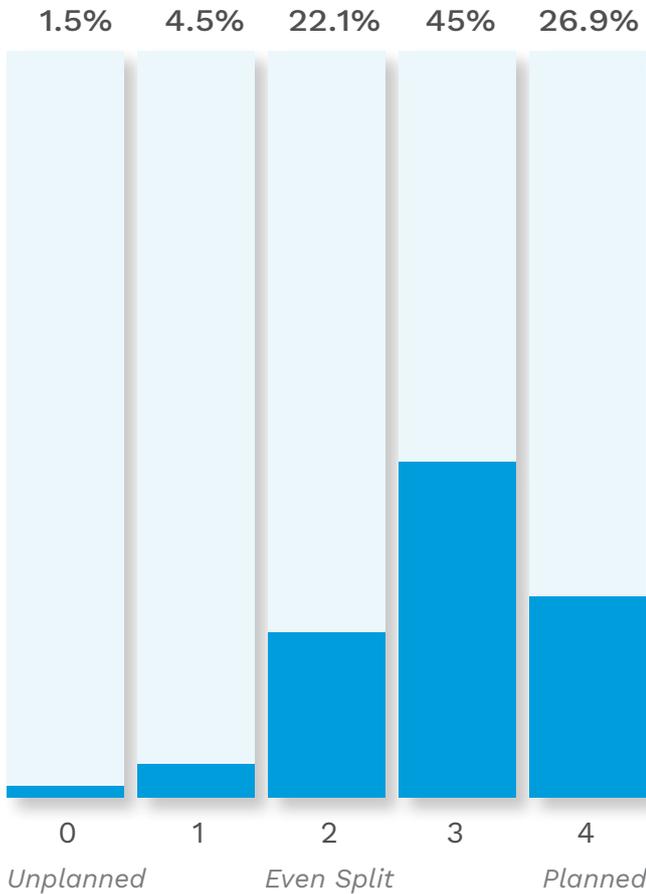


Sam Leach
Operations Lead
US

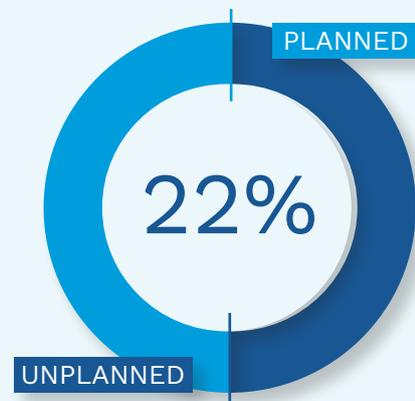


Planned vs Unplanned

Would you say the majority of your work is?



The majority of Maintenance Managers do more planned than unplanned maintenance



However, 22% have an even split across planned and unplanned

Add Energy Analysis

The results of this survey show that over 70% of Maintenance Managers believe the majority of their work is planned. ‘Best in class’ is typically 60% planned, and ‘World class’ 80%, so it’s encouraging to see a result in between these two milestones.

However, everyone has room for improvement and a journey to go on, even though some teams are further ahead than others.

If you’re striving to move further towards the planned end of the scale, the first thing you need to do is measure. Is your planned vs unplanned work being tracked and are you proactively reviewing this? You can only change what you measure, which is an obvious statement, but so many maintenance teams do not have this vital visibility. Regularly reviewing your planned vs unplanned ratio ultimately unlocks your ability to make informed decisions, and improve your team’s performance.

The next step is to understand exactly what is causing work to break into your plans. Based on the most commonplace causes we see across industries, my advice is:

- Sort and enhance your data
- Enhance work management processes and ensure they are followed
- Prioritize planning



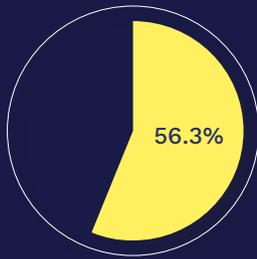
Chris Laing

Technical Lead
UK

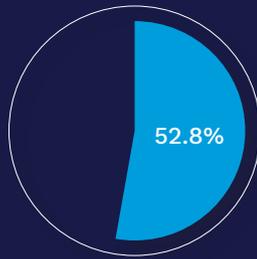


Top Priorities

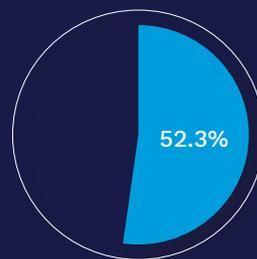
What are your top priorities?



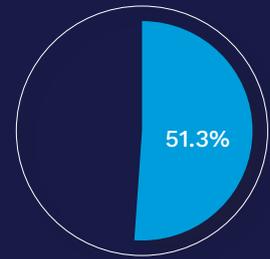
Optimized Maintenance Strategy



Efficient and Effective Team



Minimizing Breakdowns



Optimized Spares Strategy



Effective Management of Budget



No Backlog or Actively Managing Backlog



Uptime



Other

● Optimized Maintenance Strategy came out as Maintenance Managers' top priority at 56%, interestingly this goal is dependent on the other 3 priorities that scored over 50%

Add Energy Analysis

It's no surprise that an optimized maintenance strategy is sitting firmly at the top of the priorities list - this is the ultimate goal of any Maintenance Manager. From years working as Head of Maintenance, I have a few top tips I can share to help you achieve this:

- Identify duplicate maintenance and stop duplicating your team's efforts. Time is precious, so you need to ensure that what's in the system is justified.
- Regularly look back and tidy up your maintenance plans. Identify what has consistently not been done over the past 6 months, prioritize and be proactive to ensure that it is completed.
- Regularly 'spring clean' your processes and systems. Things change through the life of a plant - equipment, people, thinking - but often change is not managed well. You should be regularly verifying your data so you have the confidence in your plans, and can easily identify ways to improve.

It is also encouraging to see 'Efficient and effective team' near the top of the priorities this year. Your team is fundamental to the optimization of your

maintenance strategy and achievement of your goals.

But how can you lead a team to get the most out of them? As a manager, even if you have the answers in your back pocket, take a step back, and guide your team down a path to discover the answers themselves. Instead of doing things yourself, which may seem quicker and easier, bring them on a journey towards maintenance excellence with you.

One of my top tips to help achieve this is to delegate ownership. By giving individual team members or groups full ownership over certain work, you will make them feel engaged, involved and valued, and ensure they truly believe in and buy in to what they're doing - and ultimately this will deliver better results.



Stuart Murray
Technical Manager
UK



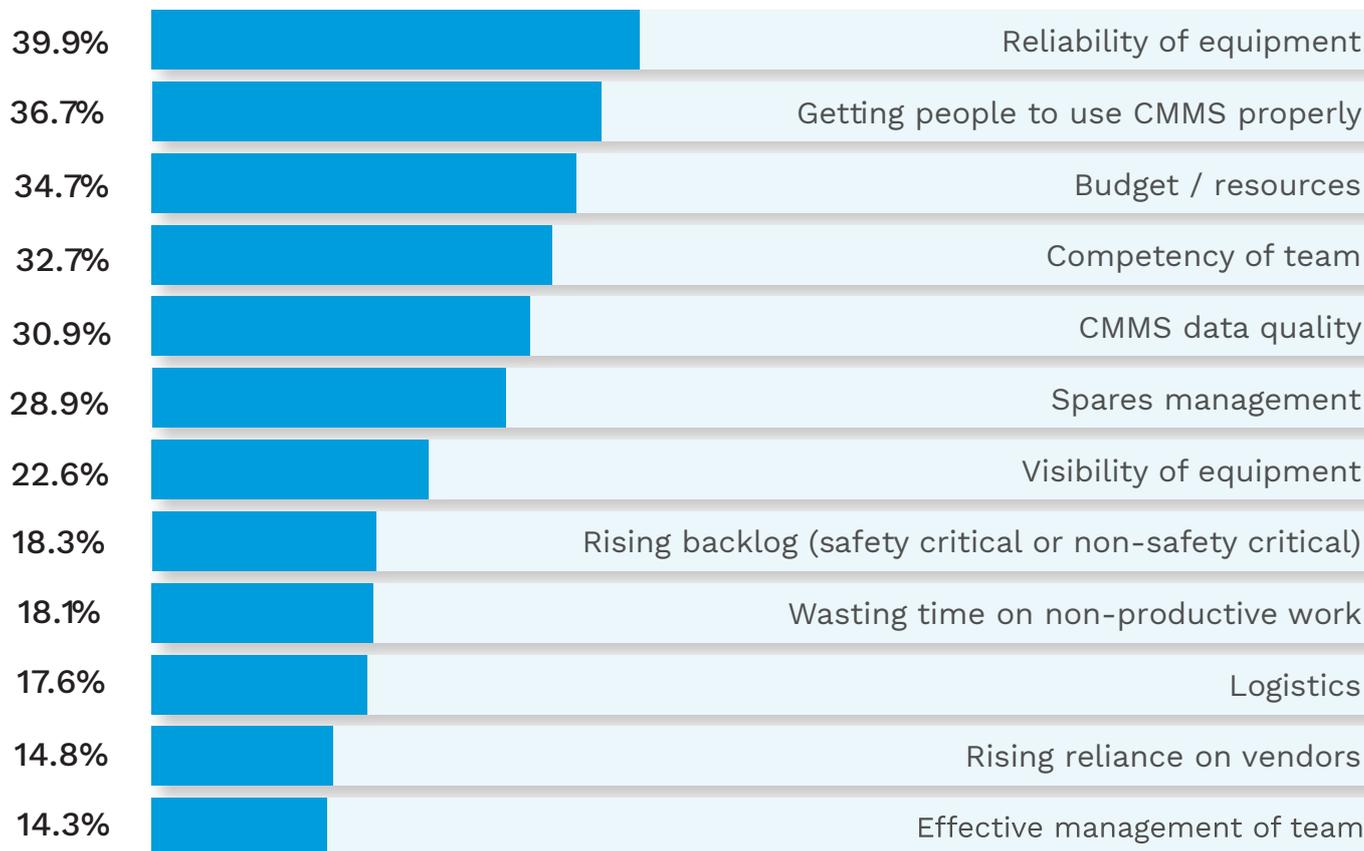
The Biggest Maintenance Challenges

The Biggest Challenges

Reliability of equipment and getting people to use the CMMS properly are the top two challenges faced by Maintenance Managers



What are the biggest challenges you face?



Add Energy Analysis

In a world of new technologies, predictive maintenance and advanced software analytics, it could appear surprising to see reliability of equipment at the top of this list. However, more and more equipment is working beyond its original design life. Coupled with the recent decline in maintenance budgets - and subsequent reductions in maintenance related activities - it is not surprising to see widespread concern over equipment reliability levels.

CMMS systems have been commonplace for many organizations for decades now, so it is surprising to see the proper use of CMMS systems as the second most common challenge facing maintenance managers. This indicates that either the initial training that was provided during the implementation was insufficient, or that there's been an erosion of CMMS expertise post implementation. The introduction of a CMMS represents a sizable investment and changes the way people do things. Such an investment and change requires meaningful training to those impacted, not just during the implementation but regularly as processes change, new functionality is rolled out and people change.

As mentioned earlier, budgets have been significantly challenged over recent years and campaign maintenance activities have suffered as a result. The impact of not doing campaign maintenance is rarely seen immediately, but over time this

becomes more and more pronounced, requiring greater levels of effort and spend to stabilize the decline. It becomes increasingly more difficult to return things back to their original condition. Rather than simply removing campaign maintenance activities, my advice would be to properly risk assess the impact of any reductions; to understand the impact of not undertaking them and to identify what is the best way of mitigating this impact.

In terms of team competency being a challenge, I would recommend having a fit-for-purpose competency management framework that is reflective of the needs of the maintenance organization. This should be coupled with clear processes and procedures to form a written record of how exactly things should be done.



Damon Bowler

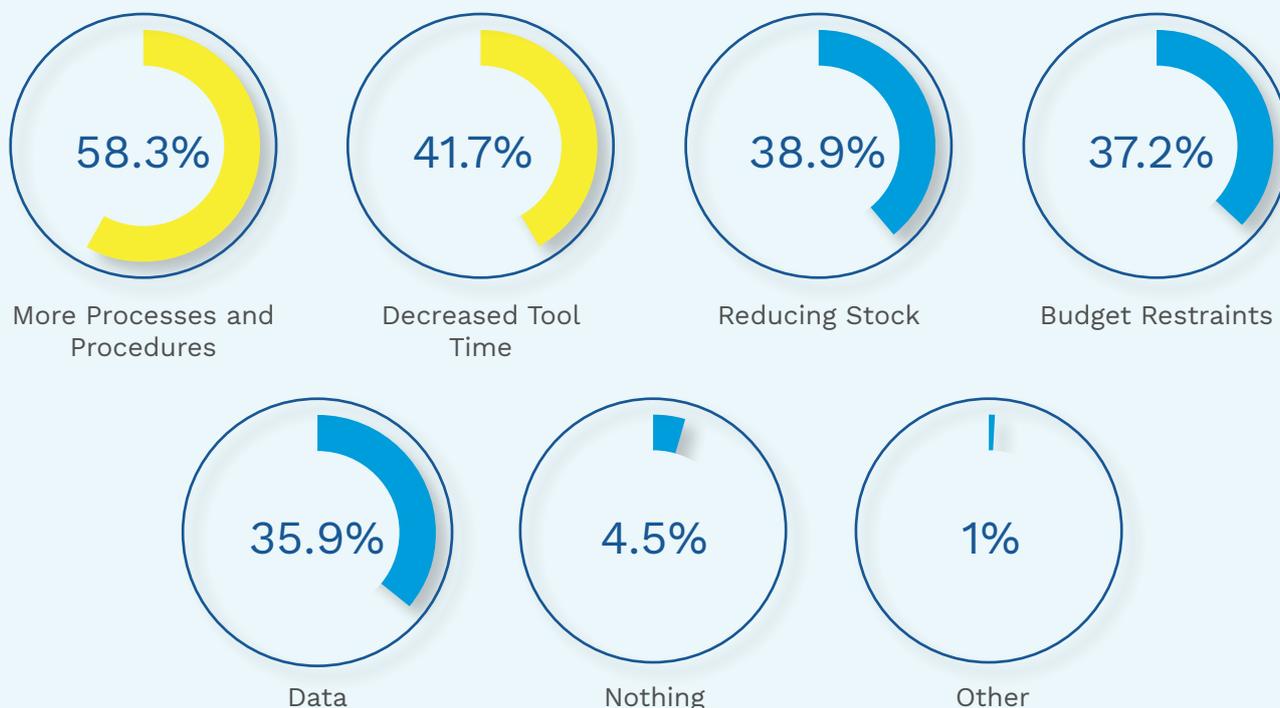
Vice President, Operations

UK



What Has Become Harder?

What is more challenging compared to 5 years ago?



More processes and procedures and decreased tool time have become more challenging for Maintenance Managers in the last 5 years

Commentary

More processes and procedures are being created in the belief that they are somehow a solution for skills and competency gaps. However, most of the time, this documentation is created by back office staff, and they are not relying on the intelligence, knowledge and competence of the team members in the field as much as they should.

There is a growing volume of processes and procedures being created, but the rate of adoption is not following the same pace for a variety of reasons - it is seen to decrease tool time, place an unnecessary 'burden' on highly skilled technicians, and take away decision making from competent team members.

Instead of masking issues with processes and procedures, we should be focusing on training - valuable training, not the tick-box style of training. This ensures skills and competencies are enhanced, gaps are eliminated, and we can trust people to do their jobs correctly, efficiently and safely.

Data has also come out in the top 5 challenges, which is not surprising yet quite frustrating. The volume of maintenance data we can now collect is vast, but data is simply the building blocks of information and

knowledge - it needs to be converted to provide value. The opportunity data presents for maintenance teams is significant, and in our experience, this is the most underutilized resource at a Maintenance Manager's disposal.

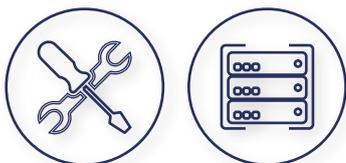
My main piece of advice to effectively convert data into actionable insights is to engage your field staff - consult with them on what data is important, and provide feedback to ensure they understand the value of the data they're inputting into the system. This will motivate them to consistently collect and share the data required, ensuring you have reliable insights to make decisions with confidence.



Mike Meen
Learning Delivery Lead
UK



Team

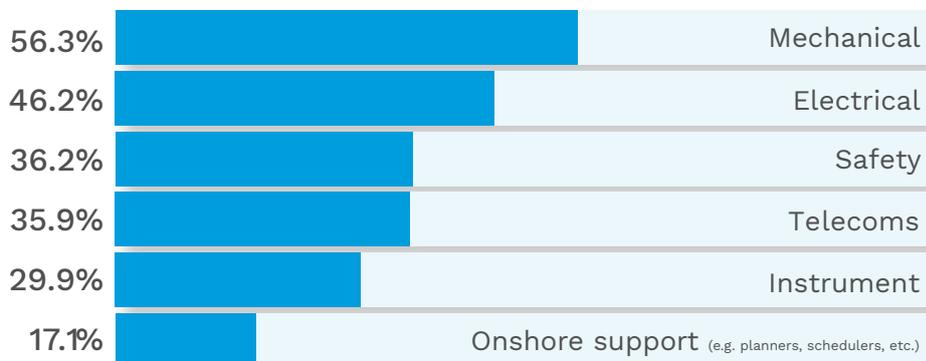


Biggest challenge

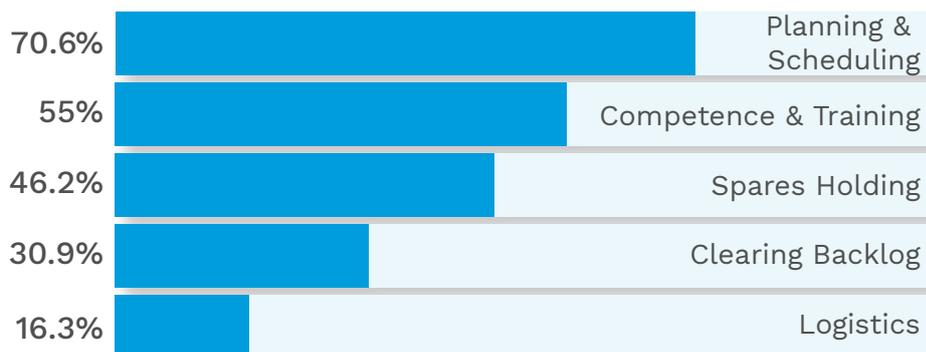


From the perspective of Maintenance Managers, most maintenance teams **struggle** the most with **planning and scheduling**

In which discipline of your team do you think are the biggest challenges?



In your opinion, what does your team struggle with the most?



Add Energy Analysis

Effective maintenance planning and scheduling is vitally important for every asset, because not only does it enable efficient work execution, it has a direct impact on production and safety targets as well as OPEX.

However it is not surprising that 'Planning & Scheduling' is at the top of the challenges list for maintenance teams. To run an effective 180-day, down to a 30-day, 14-day and 7-day plan, you need **discipline**. Yet what commonly happens is the person that shouts the loudest gets what they want, and this is not the way maintenance should be managed.

Poor planning and scheduling can be the catalyst for a whole host of other issues. For example, if you're consistently breaking your plan, you don't know what spare parts should be in stock and available, and your backlog will start to build up.

My advice to Maintenance Managers seeking to improve their planning and scheduling is:

- Focus on your team. These days I see a lot more reliance on vendor support, which impacts planning and scheduling as these people take up beds. We should instead be enhancing knowledge and competency within our own teams, plugging 'hands-on' experience gaps, and ensuring new technology is understood and effectively utilized.

- Ensure the criticality of your equipment in your CMMS is accurate. Have a risk system to prioritize your maintenance, especially corrective work.
- Optimize through packaging, nesting or routing your maintenance by location or discipline. Level load the plan to optimize the resources and time you have.
- Ensure there are accurate and realistic planning assumptions when building the maintenance plan and be cognisant of the capabilities of your people to avoid unnecessary backlog.



Daniel McGowan
Operations Manager
UK

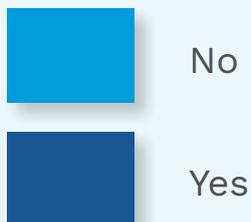
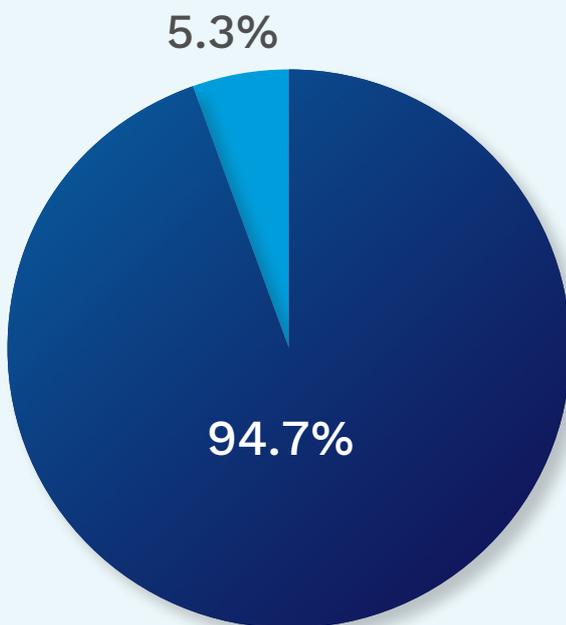


Data, Trends & KPIs

94.7% of Maintenance Managers regularly monitor data and trends



Do you regularly monitor data and trends?



Add Energy Analysis

Data is facts. Someone might tell you you're doing well, but that's just a gut feeling. Data tells you the reality, and it can be used to make informed decisions.

Look at athletes, for example. They are continually striving to improve their performance, and they'll look at every angle and every detail to get that competitive edge. **All the little improvements they make will add up.** This is the same for a maintenance team looking to achieve efficiencies and improve performance, as they can review the data of their facility's performance to make incremental improvements over time.

This means it is vitally important that the data you are reviewing is accurate and reliable. Often maintenance teams are faced with incomplete or incorrect data in their systems, which can cause a myriad of problems. **Getting the foundational data correct is essential, and thereafter it is important to ensure data standards are continually applied.**



Brian Smith

Senior Maintenance Engineer

Canada

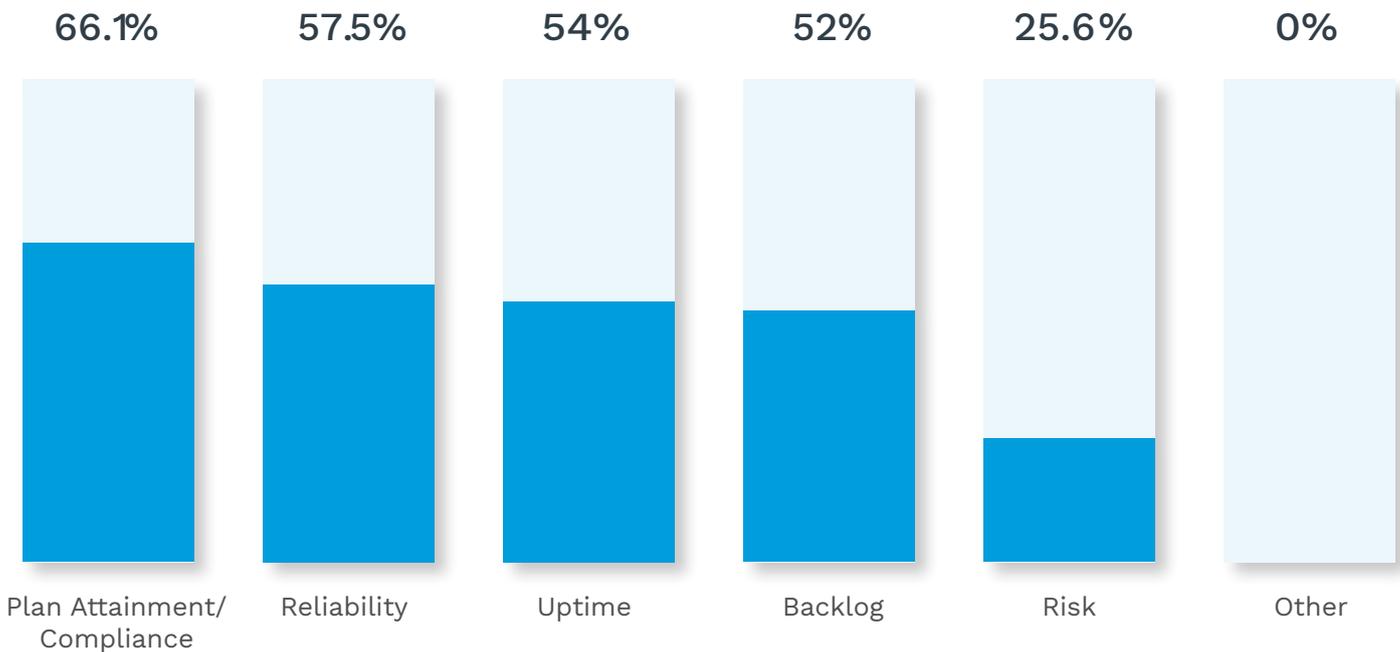
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Measuring KPIs

Maintenance Managers prioritize plan attainment and compliance and reliability



What is important for you to measure?



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Proactively reviewing and monitoring KPIs is fundamental to understanding performance, identifying optimization opportunities and ensuring improvements are continually being achieved. However, maintenance professionals must ensure the right KPIs have been selected, and that they are absolutely relevant to the work you're doing.

Often, maintenance teams are focusing on the wrong KPIs, and this can drive bad behavior across the team - with people chasing KPIs to achieve targets that result in bonuses or incentives, instead of focusing on what actually matters. To drive the right behaviors and achieve the performance you are striving for, it is imperative to have a suite of KPIs selected that fully align with your operation, your strategy and what you're managing.

I would recommend selecting 5-7 KPIs in total for your maintenance team, to focus your efforts on the highest impact work, and set challenging but achievable goals for each, that you review and update every 12 months.

Examples of KPIs we recommend tracking include:

- Preventative maintenance compliance
- Corrective maintenance compliance

- Overdue work
- Safety critical / emergency work

Overall, it's encouraging to see 'Plan Attainment / Compliance' is high, but there's definitely room for improvement. Why is the plan not being achieved? In every company I've worked with, every bad actor can be categorized into one of three buckets: competency, data and processes. To identify where there's a significant opportunity to improve your plan attainment, I would recommend first working out which category the majority of your issues are sitting in, as this will dictate your course of action to improve this KPI.



Susan Steyn

Vice President
North America

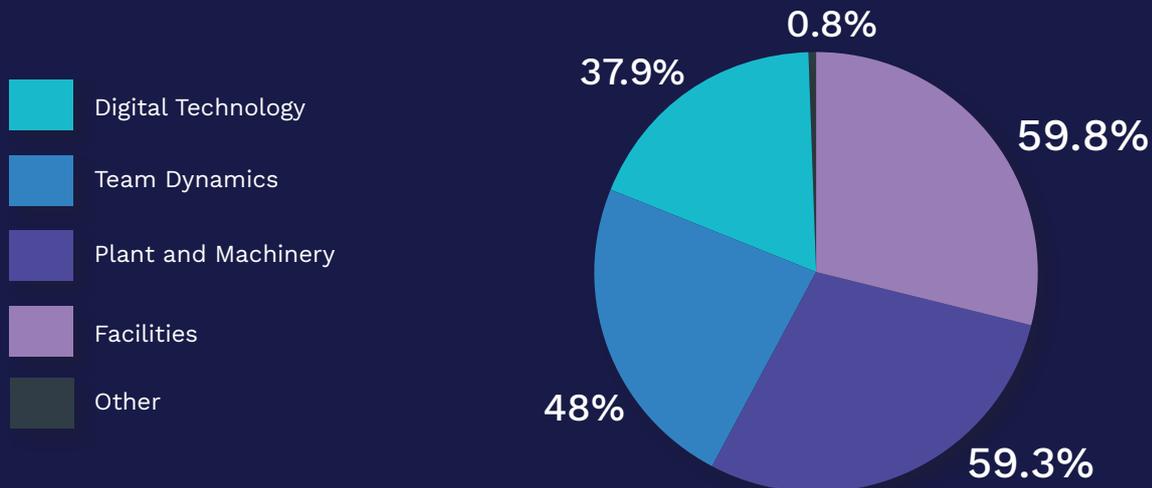
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Future Outlook for Maintenance Teams

The Next 12 Months

The majority of Maintenance Managers will be focusing on improving **facilities, plants and machinery** in the next year

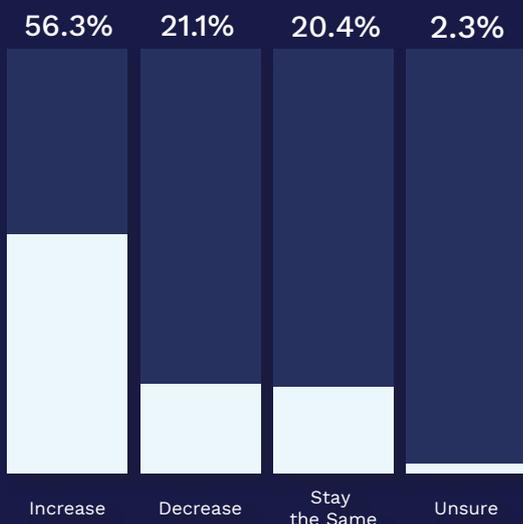
What will you be changing or improving in the next 12 months?



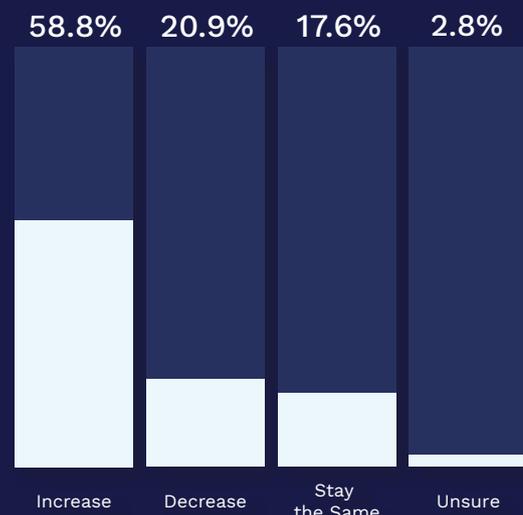
Budget & Team

The majority of maintenance budgets are going to **increase** in the next 12 months and the majority of maintenance teams will also **increase** in size

Will your maintenance budget increase or decrease in the next year?

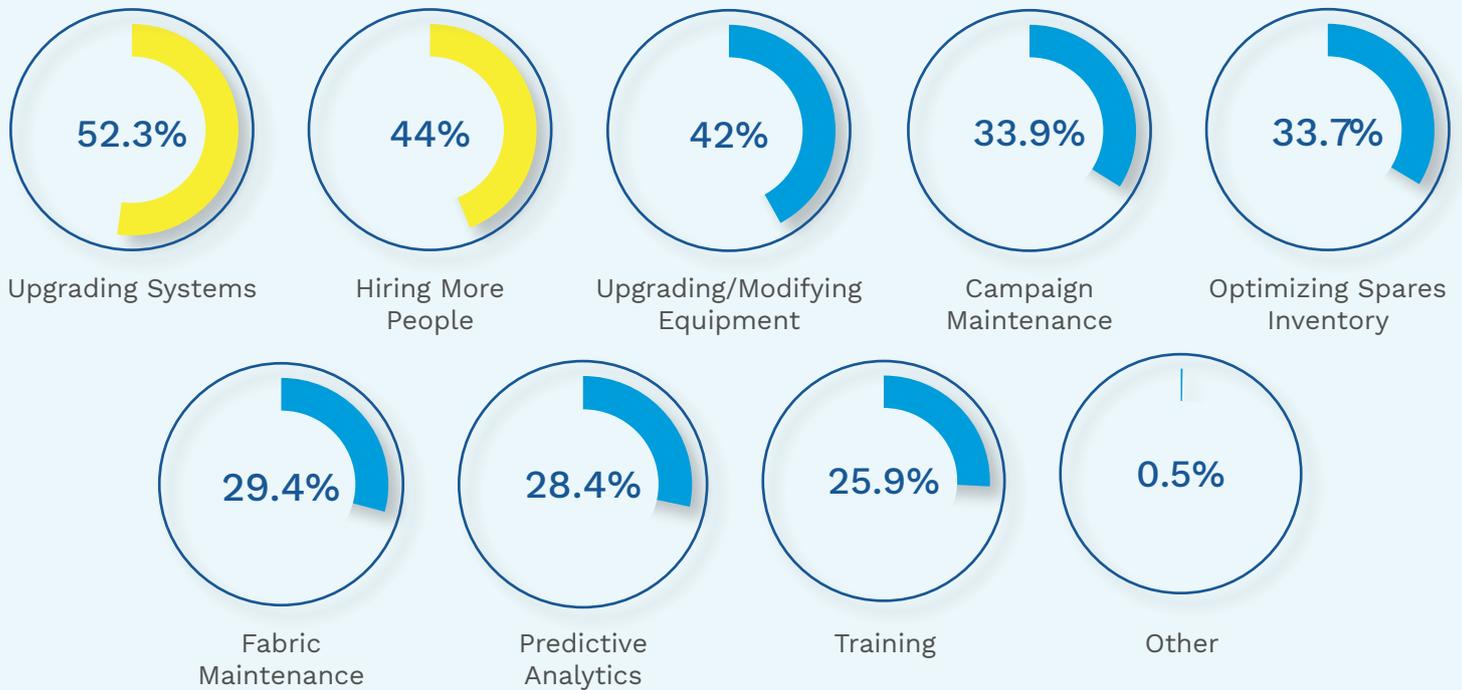


Is the size of your maintenance team going to increase or decrease in the next year?



Additional Budget

If you had additional budget, what would you spend it on?



● Most Maintenance Managers would spend additional budget on upgrading their systems and hiring more people

Add Energy Analysis

It's clear to see from the data that there has been significant pressure on maintenance budgets. Upgrading and modifying systems and equipment are unsurprisingly high on the list as companies are being asked to sweat their assets harder and longer, requiring replacement parts that may not even be in production anymore, along with increasing degradation and obsolescence.

While a lot of modern IT, control systems and new equipment are more expensive, they also have more efficiency in terms of energy consumption, and because so many assets have already been stretched to their limit, investing in these areas will ultimately save money in the long run.

Every company has had to tighten its belt in terms of costs, and as a result many now have fewer people than they had 5 years ago. Many companies have seen people retire and decided not to replace them, with those that remain being increasingly asked to step-up or perform multiple roles. With many companies now running with little or no fat in their staffing capacities, it makes sense that hiring is high on the priority list of additional budget.

As mentioned earlier, campaign maintenance typically takes a hit when budgets are tight and activities such as fabric maintenance are delayed or canceled. To see it high up the list suggests that companies are understanding the need to re-energize their campaign maintenance programmes.

I am surprised to find training so low on the list, particularly after team competency was highlighted as a key challenge earlier. It would be worthwhile for companies to re-evaluate their training needs as having competent teams could resolve many of the issues raised throughout this report.



Damon Bowler

Vice President,
Operations

UK



Conclusion

Thank you for reading The 2022 Maintenance Manager survey - we hope you found it insightful.

Add Energy's Asset and Integrity Management team of experts helps maintenance teams across the globe - from developing strategies, benchmarking performance and providing consultancy support, to delivering maintenance management system optimization services and work execution support. We have also developed innovative maintenance software.

If you're interested in speaking to one of our maintenance experts, to discover how we could help improve your maintenance efforts, please get in touch: addenergy.no/maintenance.

Keep your eyes peeled for next year's Maintenance Manager survey...

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