THE COMPLETE GUIDE TO MONITORING
WATER WASTAGE IN YOUR BUSINESS

MONITORING WATER WASTAGE IN YOUR BUSINESS

If you don't have a water management strategy in place, it's very likely that your business is using more water than it needs. This can quickly lead to increased costs, reduced profit and increased environmental impact, and directly impact on your business's performance.

There's a bewildering array of different water efficiency methods on the market, and many come with a considerable price tag. Like any business decision, water management methods must be carefully planned and costed to ensure they deliver the maximum impact against your business objectives, so a strategic approach is essential.
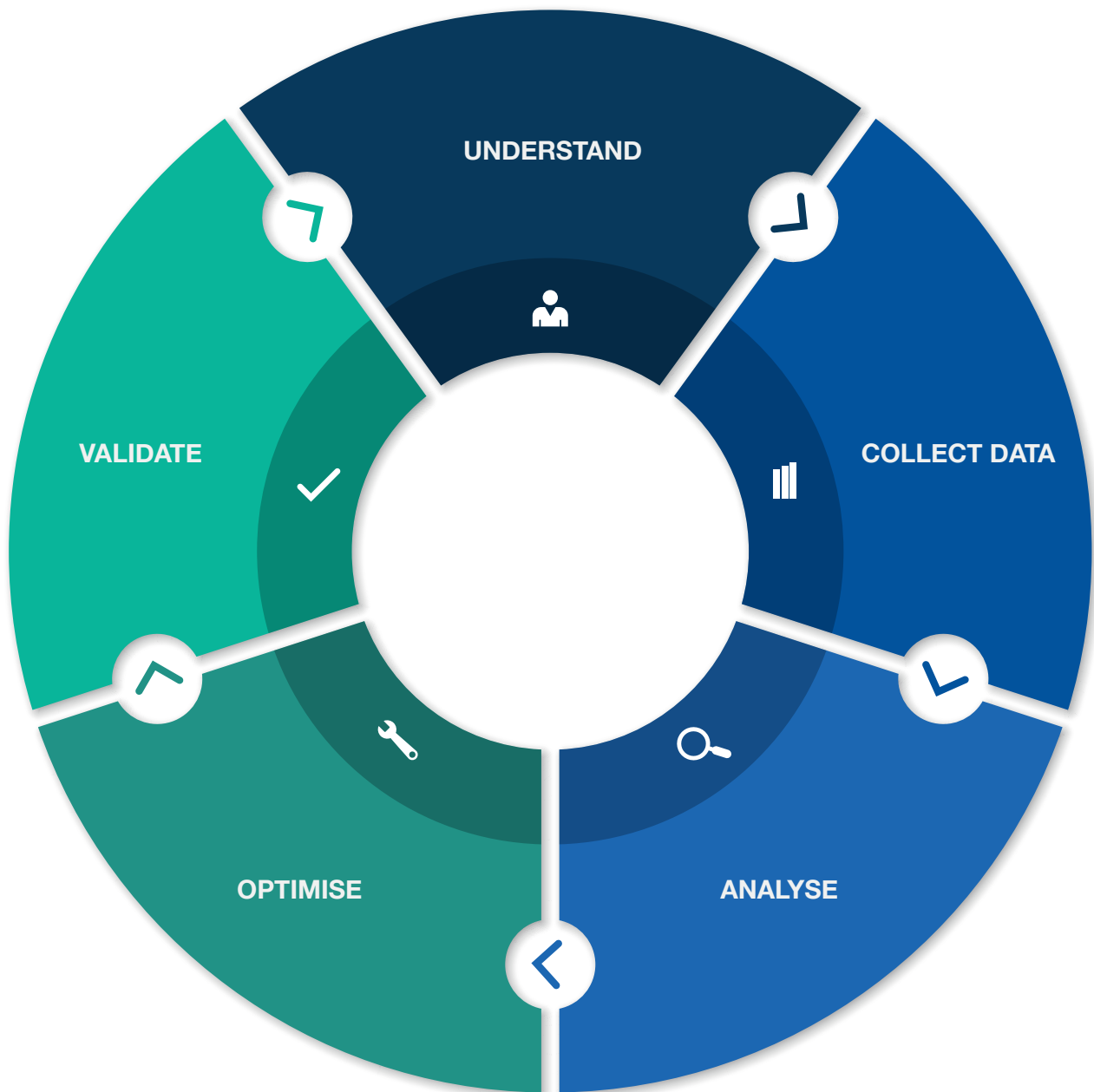
In this article, we'll talk through a simple strategy for developing a better understanding of how water is used across your business. By following this structured plan you'll be able to identify and monitor areas of water wastage within your company, and develop a clear pathway for improvements.

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MONITORING WATER WASTE

The process:

Circular process diagram with five stages:

- UNDERSTAND
- COLLECT DATA
- ANALYSE
- OPTIMISE
- VALIDATE

UNDERSTAND HOW WATER IS USED IN YOUR BUSINESS

Every strategy must begin with clear objectives. While "reduce water waste" seems like a clear-cut concept, in reality identifying wasted water isn't always as easy as it seems.

Every business uses water, but the range of processes and tasks, as well as their relative importance to the business, can vary considerably. To identify where water could be being wasted, it's first important to understand exactly where and how water is currently being used within your unique business processes.

This information is vital to help you interpret usage data, prioritise improvements and understand the results of any changes. Without this understanding, it's impossible to tell, for example, whether an increase in usage is the result of a leak, or whether it's a necessary side effect of increased production.

> In reality identifying wasted water isn't always as easy as it seems.

Key questions:

- Which internal processes/equipment use water? It might be easiest to list this up by department, or to list water usage at each stage of your production process.

- What are the factors that affect usage levels? For each process using water, are there any seasonal trends which might increase or decrease usage? Are there peaks at certain times of day? Are usage levels constant, or do they vary depending on production levels, or footfall?

COLLECT DATA

Once you have a clear understanding of how and where water is used within your business, it's time to start collecting data on usage.

While overall water usage (i.e. your bill total) is a valuable figure, the more you can break down your usage data, the more insight you'll be able to draw from it. The more you can segment your data, whether by department, building, activity, or time period, the better.

Collecting the best possible data to monitor your water usage might require you to install additional sub-meters, or automated meter reading technology to help you understand usage trends in more depth. This extra measurement might require a little investment up-front, but the insight it provides could help you identify savings that far outweigh the initial costs.

> It's first important to understand where and how water is being used within your business processes.

Key questions:

- What are my business's overall water costs and usage levels?

- Can we segment this data by department, building or activity?

- Can we segment this data by time of day/day of week/other time periods?

ANALYSE YOUR USAGE

When you've collected as much data as possible, it's time to start drawing out useful insights.

First of all, get a feel for your overall usage trends. Which departments or processes use the most water? Which uses are growing or shrinking over time? Do the usage levels make sense relative to one another, or do some seem disproportionate? Do time or seasonal trends make sense, or do you seem to be using water when you wouldn't expect to, for example at night? If there's any benchmark data you can collect from similar businesses, this might also help provide additional context to your analysis.

At this point, it can also be really valuable to incorporate some of the factors affecting usage that you identified in Step 1. For example, if water usage for a restaurant varies by the number of covers each evening, can you calculate a "usage per cover", and see how that's changing over time? If water is used in your manufacturing process, can you calculate a cost per unit of production? If you're in an office, what's your cost per head?

This type of analysis can help you account for some of the variables in your water usage. If your water costs are increasing because you've stepped up production, but your cost per unit is consistent, you'd want to look at how to reduce water usage in your production process as a whole. However, if your production is flat but your cost per unit is increasing, this suggests there might be a more serious problem, which you'd need to investigate to bring costs back into line.

Key questions:

- How does water usage compare against different departments or purposes?

- How does usage compare at different points in time?

- What is usage per head/per customer/per unit of production, and how is this changing?

- How does usage compare against similar businesses?

OPTIMISE YOUR USAGE

Hopefully, your analysis has given you a good idea of the areas of your business in which water usage is highest (and therefore where the potential impact of improvement work could be highest), as well as some pointers for where wastage might be happening (for example, if usage is increasing with no clear reason).

This insight should allow you to prioritise areas for further investigation, and to identify potential ways to reduce usage. By focussing on the highest-impact areas as identified in your analysis, you can be confident that you're spending time on the changes which are most likely to deliver results for your business.

As a result of your further investigation, you can also start to compare different efficiency measures, and build a cost-benefit analysis. For example, would installing low-flow appliances in staff toilet facilities deliver more or less impact than introducing a waterless cleaning process on your factory floor? There's no definitive answer to this – every business will be different, but the data you've collected should help you weigh up your options and make the right decisions.

Key questions:

- What are the areas of highest waste, or highest potential for improvement?

- What are the potential improvements, and what impact could they deliver?

- What investment will be required, and how does this add up in terms of cost-benefit?

- Based on this, what are the highest priority improvements?

VALIDATE

Your analysis project should have helped you to identify and build a business case for improvements that will reduce water wastage in your business. However, the process doesn't stop there. It's vital to validate your results by continuing to collect data, and measuring the impact of your changes.

In most cases, a simple before-and-after comparison of the most important figures should tell you whether your efforts have been successful. Because water savings deliver cumulative impact, it can also be useful to look at the impact over a short period of time, and then projecting savings over the longer term to understand how long your improvement will take to pay for itself, and the level of return you'll get on your investment.

> It's vital to validate your results by continuing to collect data, and measuring the impact of your changes.

Key questions:

- Did my improvement reduce water usage?

- How much did usage reduce by over the short term, and what are the cost savings?

- How long will the change take to generate a positive return?

- What's the return on investment?
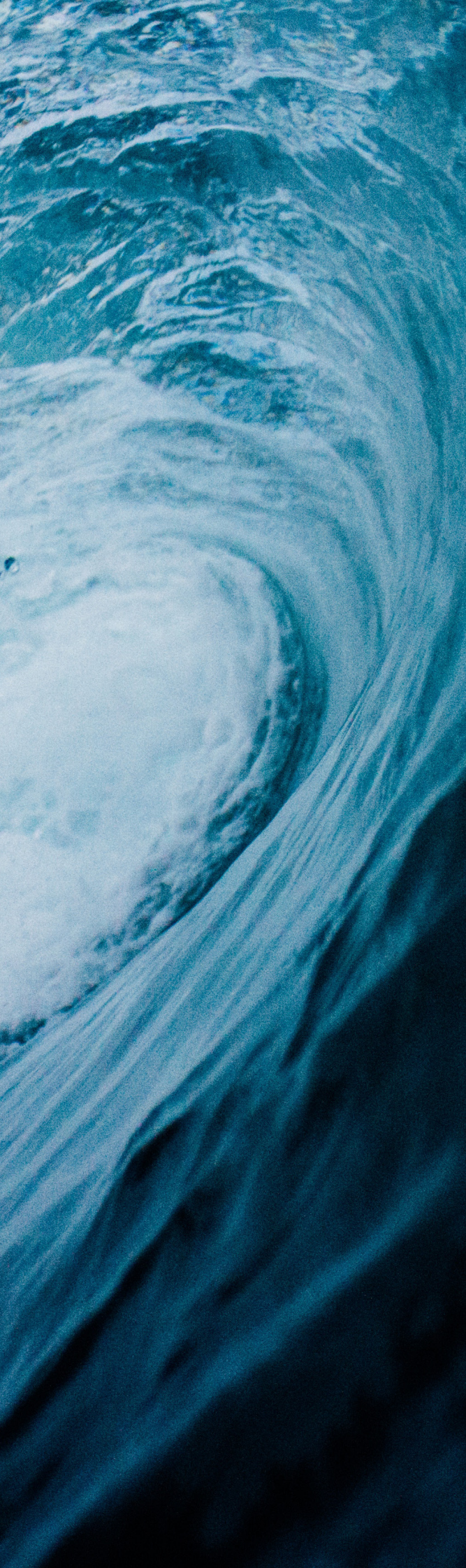
Continuous improvement

While a short-term project can deliver lasting improvements to your company's water efficiency, improvement measures like this work best when they receive continued focus over the long term.

Even if your efficiency measures are a resounding success, it's important to continue to monitor your usage to identify any changes or unusual patterns that might arise in the future. Detecting water wastage early is the best way to limit its effect on your business, so create some simple monitoring processes to review usage regularly.

It's also likely that further rounds of analysis and optimisation could yield even greater impact, and that once the most obvious areas of improvement have been identified there are even more ways to reduce your costs.

DEVELOP YOUR WATER MANAGEMENT STRATEGY

Total Water Solutions' team of experts are dedicated to helping businesses like yours understand and reduce their water usage to improve performance and profitability.

Our team can support you through the entire process listed above, from getting the right measurement tools in place through to benchmarking your performance against similar businesses in your industry, building a business case for improvements, and validating the results of any work. With experience across a huge range of sectors and industries, our team can ensure your company takes a streamlined and structured approach to reducing water waste.

For more information on how we can help, read our case studies, or contact us.

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To find out more or to discuss
how we can help you call us on
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