

# Water use & reduction



PlanetMark

Introductory toolkit

This toolkit is designed to **introduce businesses and organisations** to water measurement and reduction best practice.

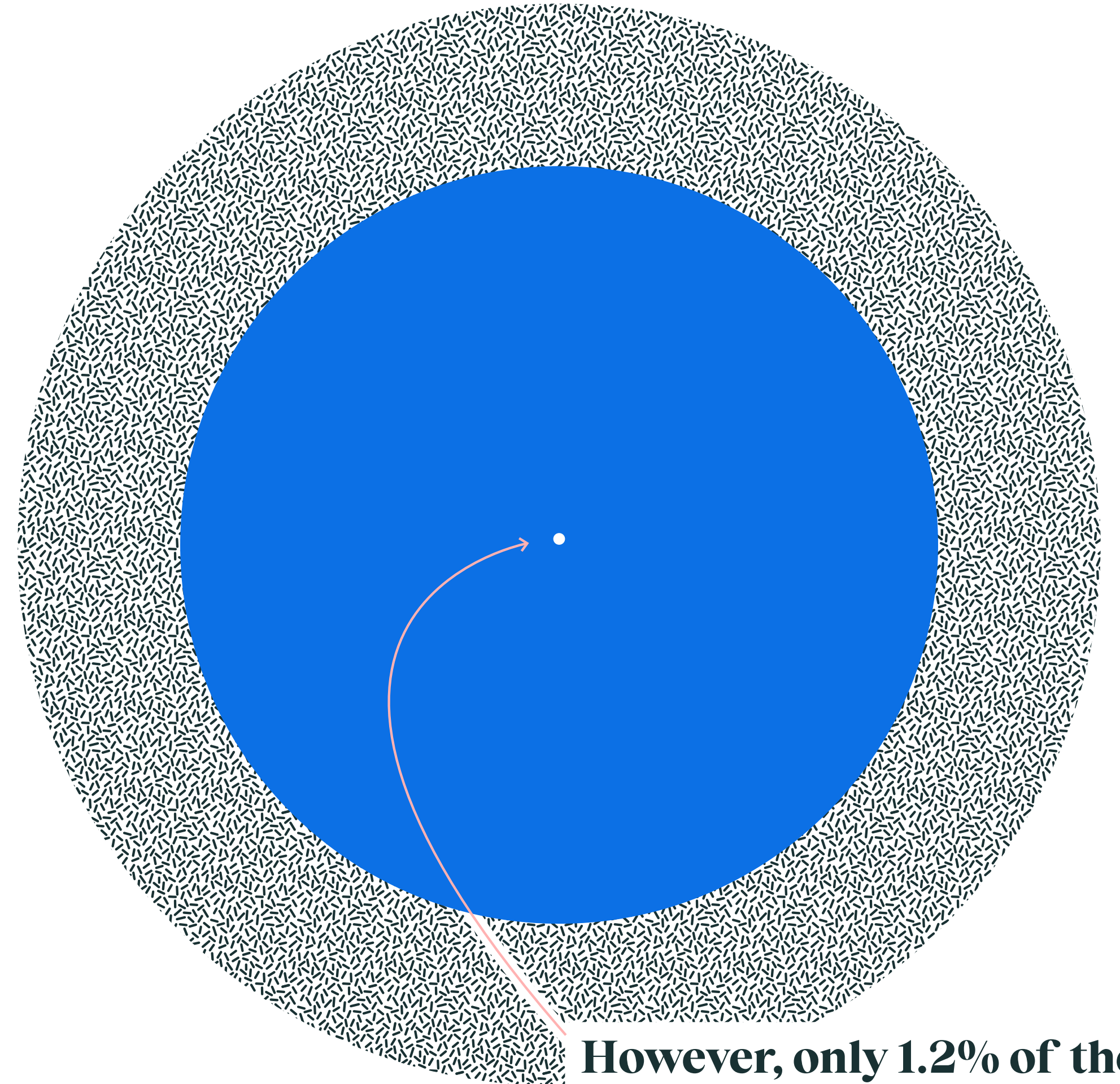
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# Why is measuring and reducing water use important?

**Over 70% of the Earth's surface is covered in water.**  
In this context, impending water shortages may appear to be a low priority for an organisation wishing to address its planetary impact.



**However, only 1.2% of the world's water is accessible and fresh.**

**This freshwater supply is at crisis point. On the global level, water demand is projected to exceed sustainable supply by 40% in 2030.** In England, official analysis shows that water supplies are likely to run short within 25 years. Rising populations and rising global temperatures combine to create unsustainable water demand in many parts of the world. As a business, it is important to be vigilant of environmental changes, and create future-proof processes that can lessen the impacts of climate change.

For the majority of businesses, water usage isn't a major contributor to overall carbon footprint. However, the process of heating water has an impact on carbon emissions. Furthermore, appliances and systems that are water wasteful may also prove to be wasteful in other ways.

Nevertheless, all businesses will benefit from using water efficiently. Every business will benefit economically from taking simple water efficiency measures, and could save up to half on the business' annual water bill. In manufacturing, this can be much higher, with water bills accounting for over 1% of turnover.

There are also benefits to business that extend beyond the economic and environmental cases. Water management is an integral part of a robust sustainability strategy. As consumers and suppliers become increasingly conscious of their environmental impact, demonstrating sustainable water and resource use can be helpful in customer acquisition and retention.



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# What's normal?

**Nearly 90% of water use in a typical business is from bathroom use**

**Water use will vary dependent on industry and size of organisation.** A typical business premises that doesn't use water as a key business process will use, on average, 50 litres of water per person per day. Nearly 90% of water use in a typical business is from bathroom use, with the remaining water being used in the kitchen and for cleaning.

The formula below can be used to work out a business' water use per person per day.

This formula can give an estimation of how much can be gained from water efficiency measures.

Number of litres per person per day	=	Water used as billed (m <sup>3</sup> ) × 1000
		Number of employees × number of days worked

# What can contribute to excess water use?



The cost and use of water can go beyond the bill paid to your water supplier. Dependent on the industry, other costs may include:

Energy used to heat or cool water

Heating Bills

Loss of water through leaks or inefficient appliances

Maintenance and plumbing costs

Wastewater disposal and sanitisation processes

Using less water may also result in your business being able to fully rely on the mains supply for water. This can save money on abstract water licensing.

# How to **measure** **your water use**

Measurement is the first and most important step in a sustainable water use strategy. Being able to track the successes and areas of improvement in a business' water use is essential to reducing future use.

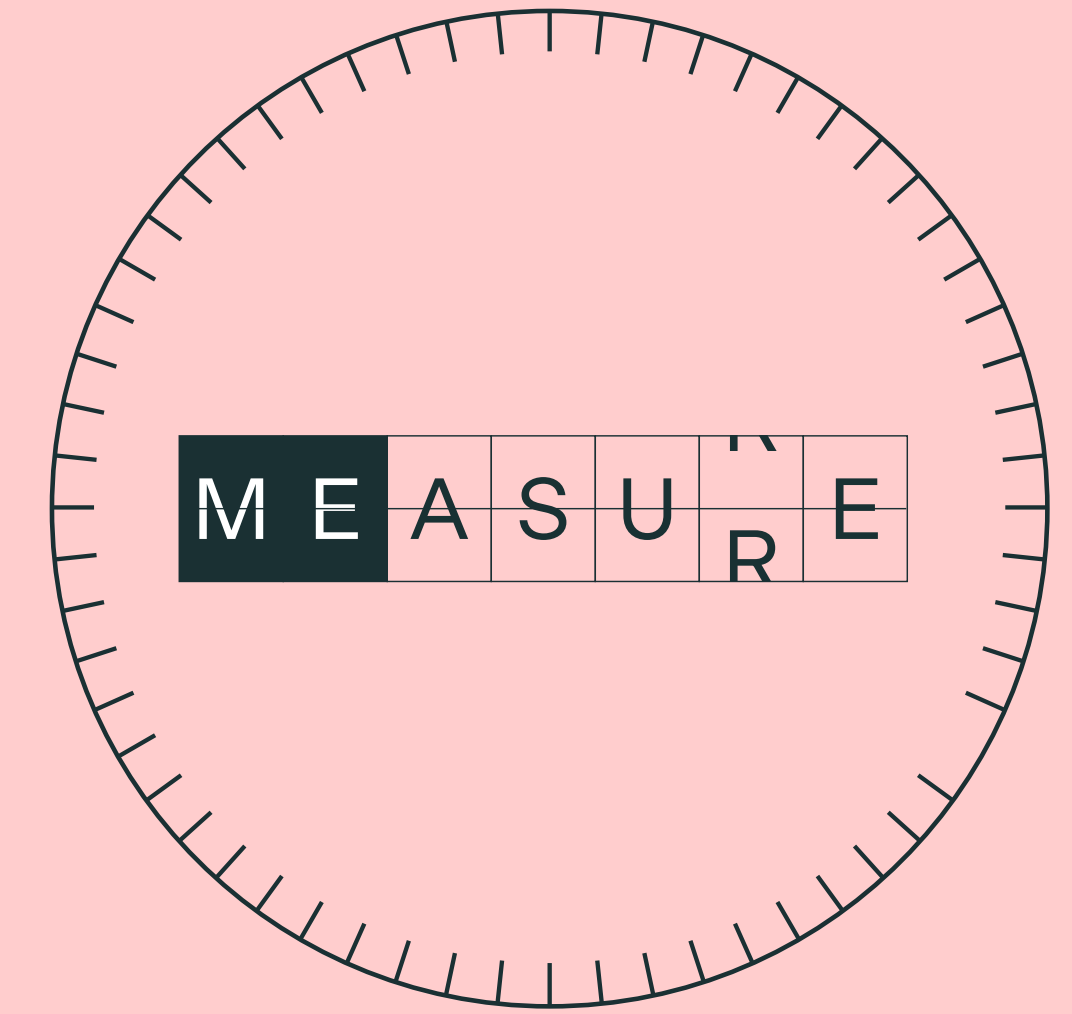
## 1 Water meter

The most effective step to begin measuring water use is to **track data via your water meter.**

This could just be a matter of taking a reading at the start of your water saving project and then keeping track of how usage varies as the project develops.

## 2 Water bills

If your business has records of previous water bills, then studying previous years' water can provide more data to begin identifying inefficiencies and patterns.



## 3 Smart meters

Installing smart meters will **improve the available data enormously.**

Smart meters give the benefit of providing a deeper breakdown of water use, allowing measurement at a much more granular level and clearer identification of inefficiencies.

## 4 Sub-metering

Sub-metering, the installation of other water meters at different points in your business' water system, can also provide deeper knowledge on where exactly water is used and lost within your business.



## 5 Estimated meter readings

Estimated meter readings or missing monthly invoices are the biggest sources of inaccurate measurements associated with waste water.

## 6 Monitor waste water

Monitoring your waste water is as important because **waste water treatment usually form larger proportion of CO<sub>2</sub>e emissions** compared to water supply.

Installing smart meters will **improve the available data enormously**



# Data is crucial to progress on water use and efficiency

## 1 Benchmarking

Performing a benchmarking exercise will allow a business to examine its water use against others in its industry. While it is unlikely that data will be granular for competitors in this exercise, it will give an indication of how your business is performing.

## 2 Engage your staff

The data collection stage of a water use policy is the perfect time to begin engaging staff in the process.

A water use survey may end up being a useful tool to complement meter data, as well as getting staff to think about water efficiency from an early stage.

## 3 Suppliers. Shop around

Whereas household customers have no choice in their water supplier, non-household water customers are able to choose their water retail company.

This gives businesses the ability to shop around for the best service. Measures such as smart meter provision and online billing may provide a competitive edge for one supplier over another, so be sure to shop around for the best supplier to fit your needs.

## 4 Collect data

Data is crucial to progress on water use and efficiency. Metering and collecting data is the first step in creating an efficient business. Beyond the ability to report on progress, data from your business, your staff and your competitors will allow you to demonstrate the potential ROI from water efficiency measures.

Many appliance upgrades and efficiency measures will come with upfront costs, but early data collection can help make the business case for their financial, environmental and social value over time.

Once your business has the appropriate data to measure its water use, it is then important to **engage other stakeholders in the process.**

Want to know more?

Get in touch with  
our team



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