Schaffhausen, 4 November 2025

Will AI run the world dry?

Antoine Walter, Senior Business Development Manager

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Will AI run the world dry?

One bottle of water

Consumed by AI for every 100-word response

622 billion liters

of water will be consumed by Data Centers in 2025

Water-scarce areas

are massively used for the construction of new data centers (160 in the US alone over the past 3 years)

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Will AI run the world dry?

You probably heard this about Data Centers and AI …

« Billions of Liters »

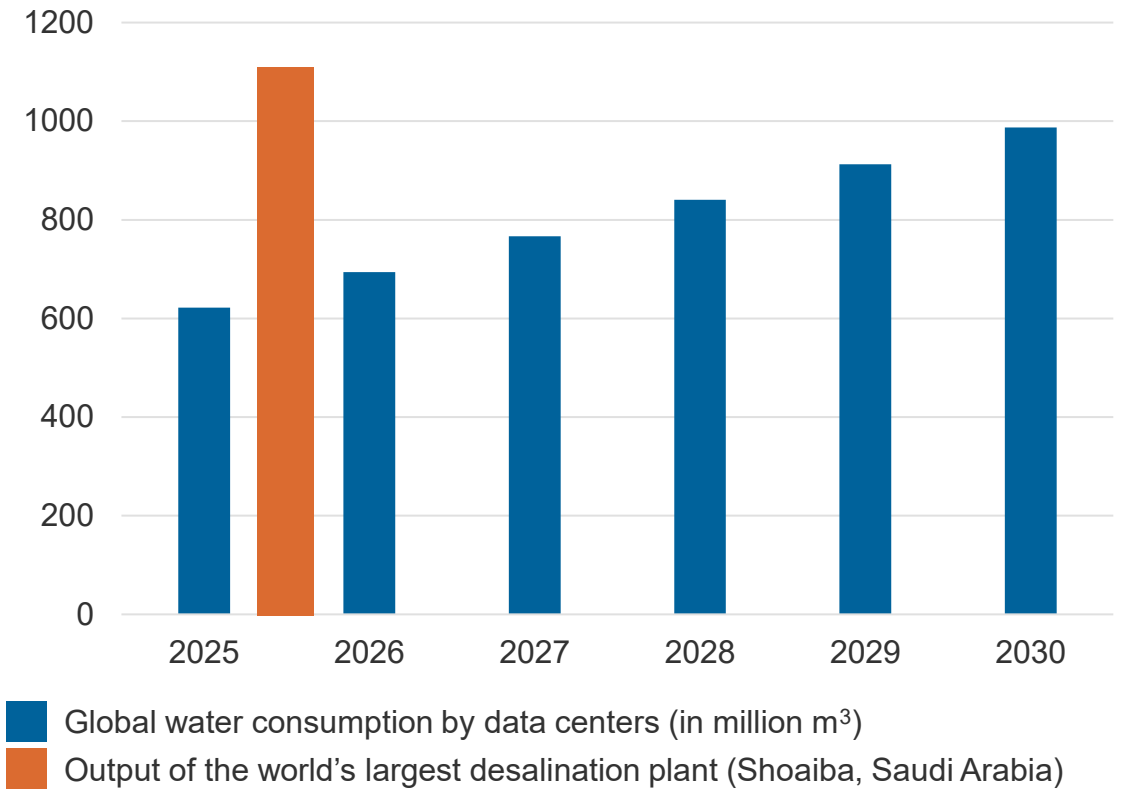
« The equivalent of 2500 Olympic swimming pools »

« More water than needed for 17 million inhabitants »

… or if you're regularly in touch with the US:

« 9.9 trillion tablespoons, or if you prefer 620 million hogsheads, which converts to roughly 4.34 billion firkins per day »

... but what are the facts, beyond that smoke?



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The main challenge is not quantity but geography

Similar situations are also visible in other industries
e.g. Green energy production or Microelectronics

Data centers are highly distributed

The primary drivers for a data center's localization are **energy and network**, not water

50% of data centers today are installed in **high water stress areas** (which will rise to 58% by 2050)

> In a **«Business-as-usual hypothesis» the World will miss 40% of the Water it needs** to run its industry by 2030.

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Let’s zoom out to the two real problems for a second

The world’s water infrastructure is rapidly decaying

30 – 35% of the world’s potable water never reaches any user

We’re losing high-end water to cracks and leaks

We use water only once

Only 4 – 5% of the world’s wastewater is reused

We’re missing out on a major source of water

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A rapidly decaying water infrastructure

OECD countries: 19th century pipes, 21st century problems

Infrastructure is on its edge

U.S. Water Infrastructure Crisis:
Drinking water, wastewater, and stormwater systems score poorly (C-, D+, D), with a USD 3.7 trillion funding gap projected by 2044.[1]

Europe's Investment Need:
EUR 300 billion by 2030 for water resilience and EUR 855 billion by 2050 to prevent EUR 500 billion GDP loss from water stress.[2]

> **This is why, infrastructure investment is expected to grow by 12% until the end of this decade. But is it enough?**

Sources: 1. American Society of Civil Engineers; 2. Water Europe

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Is a 12% investment increase enough to solve water infrastructure?

No

If you want to fully revamp the infrastructure and build it new

Yes

If you go for clever approaches instead

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Is a 12% investment increase enough to solve water infrastructure?

The infrastructure funding gap is always calculated on the hypothesis to « **rebuild the same & new** » but the World voted with its wallets against this option.

Managing the pressure helps you to optimize your system

1. **Less Non-Revenue Water**
   Lowering pressure by 20% reduces leakage up to 28%; 50% reduction cuts it by up to 65%
2. **Slower decay**
   Pressure management lowers network failures by 41%
3. **Smarter budget use**
   Extend network life by 10–15 years at 35% of rebuild cost

NeoFlow
Pressure managing valve

MULTI/JOINT®
Repair couple

VAG EKN® H
Butterfly Valve

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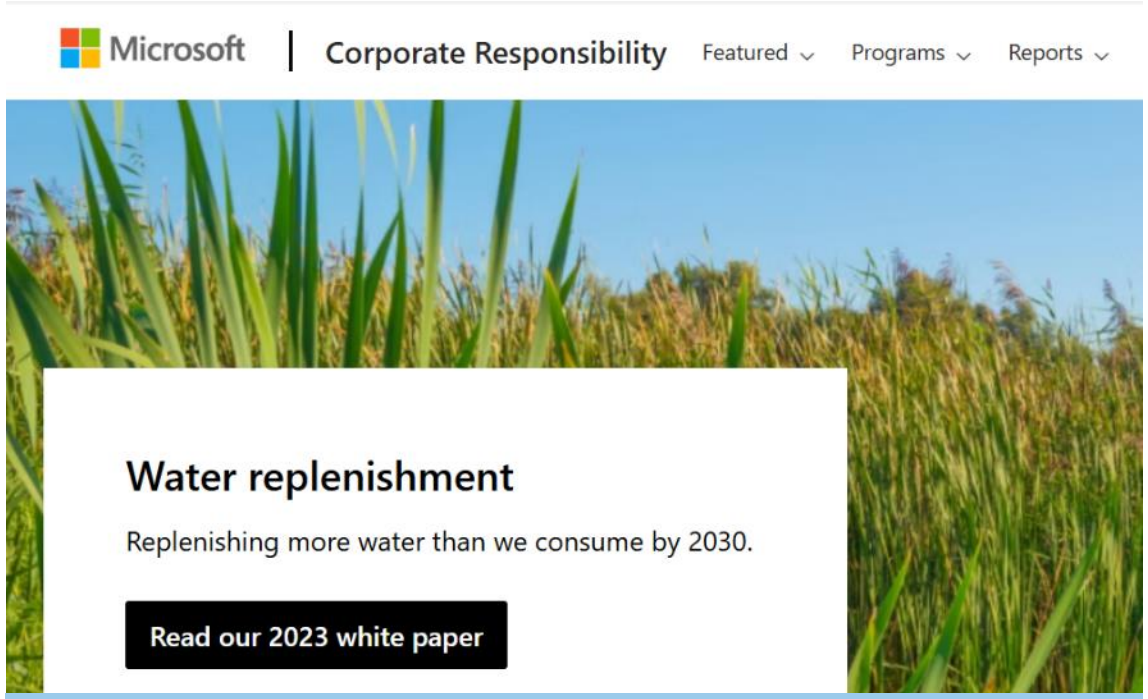
New sources of Funding: Amazon, Google, Meta, Micosoft …

Every major data Center operator has a water stewardship target:

- **Google - 120% water replenishment**
  Funds water restoration projects and partners on watershed initiatives.
- **Meta - water-positive by 2030**
  Has funded 40 water restoration projects since 2017.
- **Amazon - water-positive by 2030**
  Leads with science-based watershed partnerships with utilities and federations.
- **Microsoft - water-positive by 2030**
  Invests in restoration projects alongside Google and Meta.



> Data center giants help close utility funding gaps to cut leaks and non-revenue water, securing more reliable water access.

Source: Companies websites

Picture source: Microsoft Corporate Responsibility website

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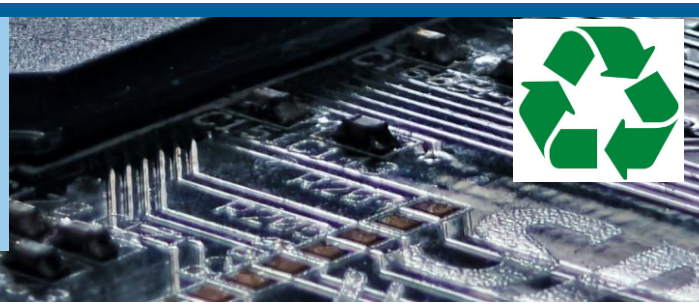
The second tap: unlocking the potential in wastewater reuse

65% less energy*

4x less expensive*

Smart & Automated

Up to 98%
water recycled in semiconductor manufacturing already



Increasing
driven by permitting

3x Investment
to bring the water use in balance

* Compared to seawater desalination

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GF's specialized options for wastewater reuse

Reverse Osmosis and Ultrafiltration

Ion Exchange

Chemical Dosing

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+ **So, is AI thirsty? Yes. But it matters much less than one would fear, granted we approach it right – which requires a flow solutions expert!**

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Q&A

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