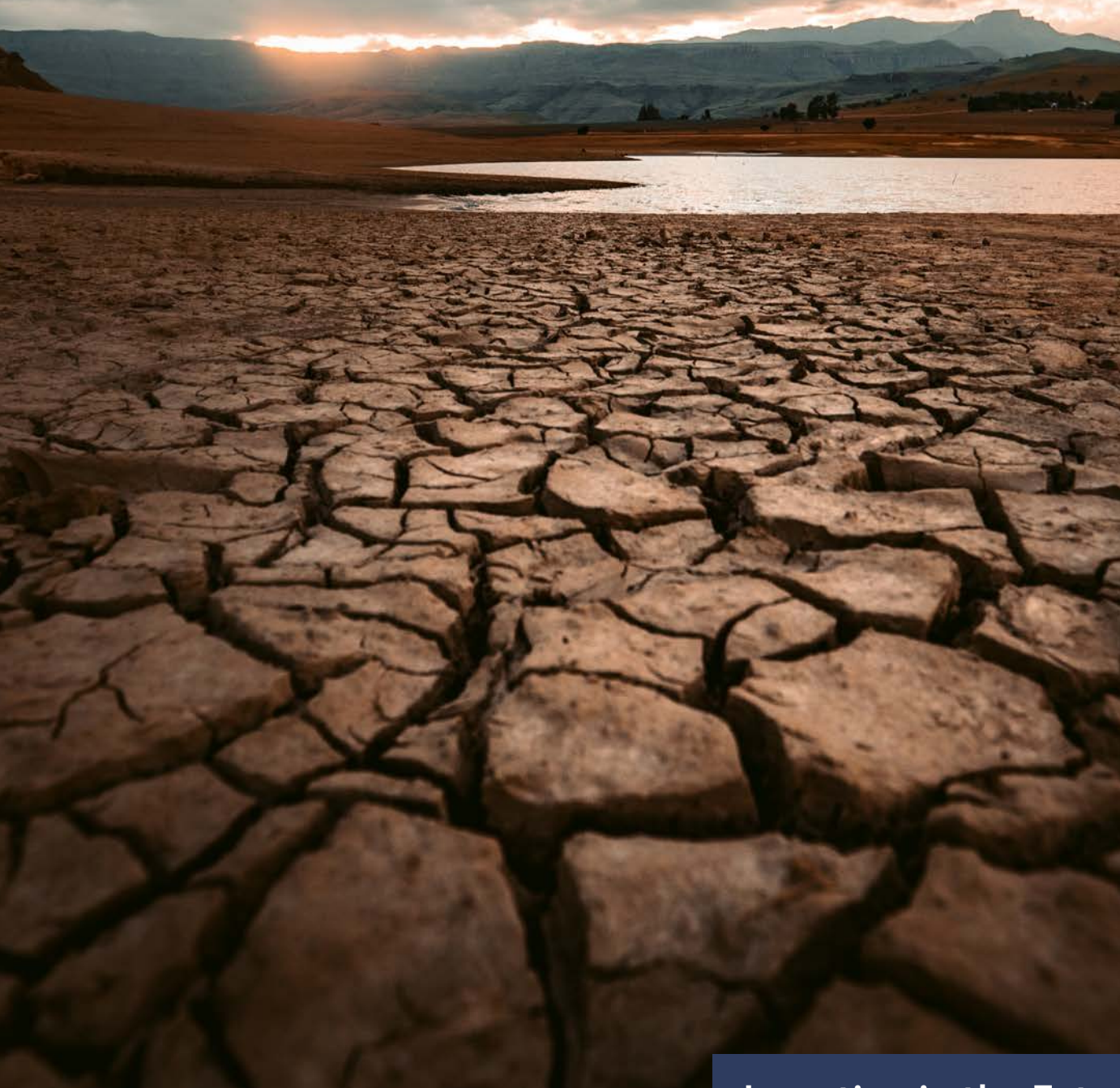


# The value of water



Investing in the Future

Business solutions  
to the Global Goals



# The Challenge

>1%

of the Earth's water reserves are readily available for human use

2/3

of the world's population may face water shortages by 2025<sup>1</sup>

50%

of the global population already suffers from polluted water

## The world faces significant water challenges:



- Water scarcity



- Water pollution



- Water leakage rates



- Urbanisation and population growth



- Climate change

Water demand is increasing at an unsustainable rate, threatening our ecosystems and potentially fuelling conflict, social unrest and mass migration.

**Within 25 years, England will not have enough water to meet the country's demand.**

**About 80% of wastewater** flows back into the ecosystem without being treated or reused. In 2020, UK water companies discharged raw sewage into rivers and coastal waters **over 400,000 times**<sup>2</sup>.

Water can carry pathogens, parasites, toxic chemicals and radiological hazards, **which can cause diseases; a child dies every two minutes** as a consequence<sup>3</sup>.

**Up to 40% of clean, treated water is lost** in the last mile of ageing pipes in Europe, destroying about €80bn of value every year.

**Agriculture uses 72% of all water withdrawals**<sup>4</sup>, and is also a major source of water pollution.

# The Opportunity

**Better water solutions can create value by reducing costs, maximising asset life and building resilience.**

By **reusing wastewater** responsibly, we can recover nutrients and energy, for purposes such as **irrigation** (a predicted \$18bn market by 2026) and **increasing food production**.

**Investment in infrastructure** will enable over 66%<sup>5</sup> of water-scarce cities to **overcome water scarcity**, while also improving resident **health** and **environment** quality, and boosting **socioeconomic development**.

**Emerging technologies** will provide **more accurate water-related data and analysis**, facilitating real-time situational awareness, efficiency analysis and continuous optimisation.

**Regulatory pressure** (with substantially increased fines and penalties) is also creating opportunity as **utilities actively look to in-source new technology** to mitigate risk.



There is growing recognition across the industry of the need for **greater investment in innovation** to solve these challenges.

In the UK:

- Water regulator Ofwat has launched a **£200m innovation fund** called **Future Ideas Lab**.
- Water suppliers have pledged to invest over **£50bn** on new solutions in the next five years.

Water is essential to life as we know it. As we approach the **tipping point** where we do not have enough water to meet the needs of a growing population, the **value of water** - and the **value of solutions that conserve it** - will rise dramatically.



<sup>1</sup>World Wildlife Fund: <https://www.worldwildlife.org/threats/water-scarcity>

<sup>2</sup>Environment Agency: <https://environment.data.gov.uk/dataset/21e15f12-0df8-4bfc-b763-45226c16a8ac>

<sup>3</sup>Water.org: <https://water.org/our-impact/water-crisis/>

<sup>4</sup>United Nations Summary Progress Update 2021 (SDG 6):

<https://www.unwater.org/publications/summary-progress-update-2021-sdg-6-water-and-sanitation-for-all/>

<sup>5</sup>Nature Journal (August 2021), 'Future global urban water scarcity and potential solutions', *Nature Communications*



# Business solutions

We are seeing a number of interesting and innovative business models emerge across the value chain – from **smart water monitoring and analysis tools** to track usage more effectively, solutions to **mitigate usage**, and technology that **broadens access** to potable water.

## MONITOR AND ANALYSE

**Sensor technology** can provides real-time, actionable insights with predictive capabilities, helping to:

- Measure & optimise resources and consumption
- Better enable long-term planning



**Smart meters** aid both consumer and commercial users with **tariffs, billing** and **accurate usage data**. Annual shipments will increase by 45% between 2020-2026.

### EXAMPLE: CERES IMAGING

- Venture-backed irrigation management provider
- Helps farmers anticipate irrigation problems; corrects over-/under-watering scenarios; measures and improves performance



**Information & Data Services** - research and intelligence services for the water industry

### EXAMPLE: GWI WATER DATA

- Market intelligence platform for the global water sector
- Produced by Global Water Intelligence



**Environmental/ aquatic monitoring** - consultancy, laboratory services and field surveys for both freshwater and marine environments which includes water monitoring, sampling and data acquisition, resource evaluation and monitoring, fisheries monitoring and consultancy, and water conservation and management.



**Software tools** that process, analyse, track and operate water and utility functions.

### EXAMPLE: WATERPLAN

- Software platform helps businesses mitigate water shortage risk and financial cost implications
- Looks at local water availability via hydrologic and climate modelling, and real-time satellite imagery
- Founded in 2020 as part of Y Combinator accelerator

## MANAGE AND MITIGATE

Efficient, well-maintained **water storage, treatment, re-use and distribution** operations are essential to a functioning, sustainable market, economy and society.



### EXAMPLE: LAT

- UK company developing new approaches to waste water treatment and desalination
- Water separation technology works at lower temperatures and pressures than conventional technology, so can operate using recycled low-grade waste heat available on-site or via renewable sources
- Has received over 11 international patents and over £2.5million in awards for innovation



Operations to **reduce demand** include:

- Usage efficiency methods, such as sprinkler or drip irrigation in agriculture
- Water recycling facilities for domestic and industrial use
- Water-saving innovations for use in commercial and domestic settings



Operations to **increase supply** include:

- More efficient collection and transfer infrastructure
- Desalination plants

## DEMOCRATISE ACCESS

**Emerging water retailers** taking advantage of market deregulation to compete with established players in the sector.

### EXAMPLE: EVERFLOW

- Water retailer and utilities billing platform
- Founded 2015, backed by Perwyn in 2018



**Engineering Solutions & Services** that design, build and service mission-critical infrastructure



**Geospatial information services** - provision of satellite-derived intelligence to water industry for monitoring and decision-making

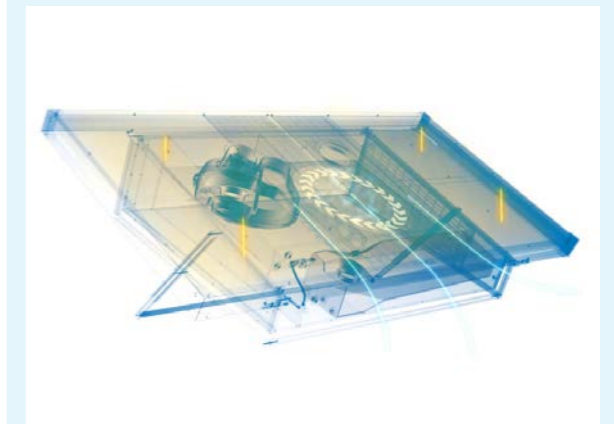


**Water filtration and purification** technology can reduce costs and broaden access.

- **Reverse osmosis** water filtration can be used in industries like pharmaceuticals, food and beverage and power generation
- **Nanotech systems** are often cost-effective, modular and highly efficient

### EXAMPLE: SOURCE

- Atmospheric water generation technology generates liquid water via SOURCE hydropanel
- Devices are easily transportable, do not rely on external power and are self-contained



## GET IN TOUCH

The Bridges Sustainable Growth Funds invest in ambitious growth companies that are helping to build a more inclusive and sustainable economy.

We would love to talk to businesses that are developing new water solutions about how we can help them accelerate their growth and optimise their impact.

Please drop us a line via  
[kyle.bentwood@bridgesfundmanagement.com](mailto:kyle.bentwood@bridgesfundmanagement.com)

**BRIDGES**  
Fund Management

# INVESTING IN THE FUTURE THE FUTURE OF INVESTING



## ABOUT BRIDGES

At Bridges, we believe that investing in a better future for people and planet is both a moral imperative and an economic opportunity. By reducing our impact on the planet and helping more people to achieve their potential, we will boost productivity, reduce climate risks and foster new high-growth industries – creating lasting economic value.

We focus specifically on four themes, all of which are closely aligned with the Sustainable Development Goals:



### Healthier Lives

Solutions that improve physical and mental health and well-being



### Sustainable Planet

Solutions that help reduce emissions and decarbonise the economy



### Future Skills

Solutions that help people to fulfil their potential by up-skilling or re-skilling



### Stronger Communities

Solutions that improve access to quality goods, services and opportunities