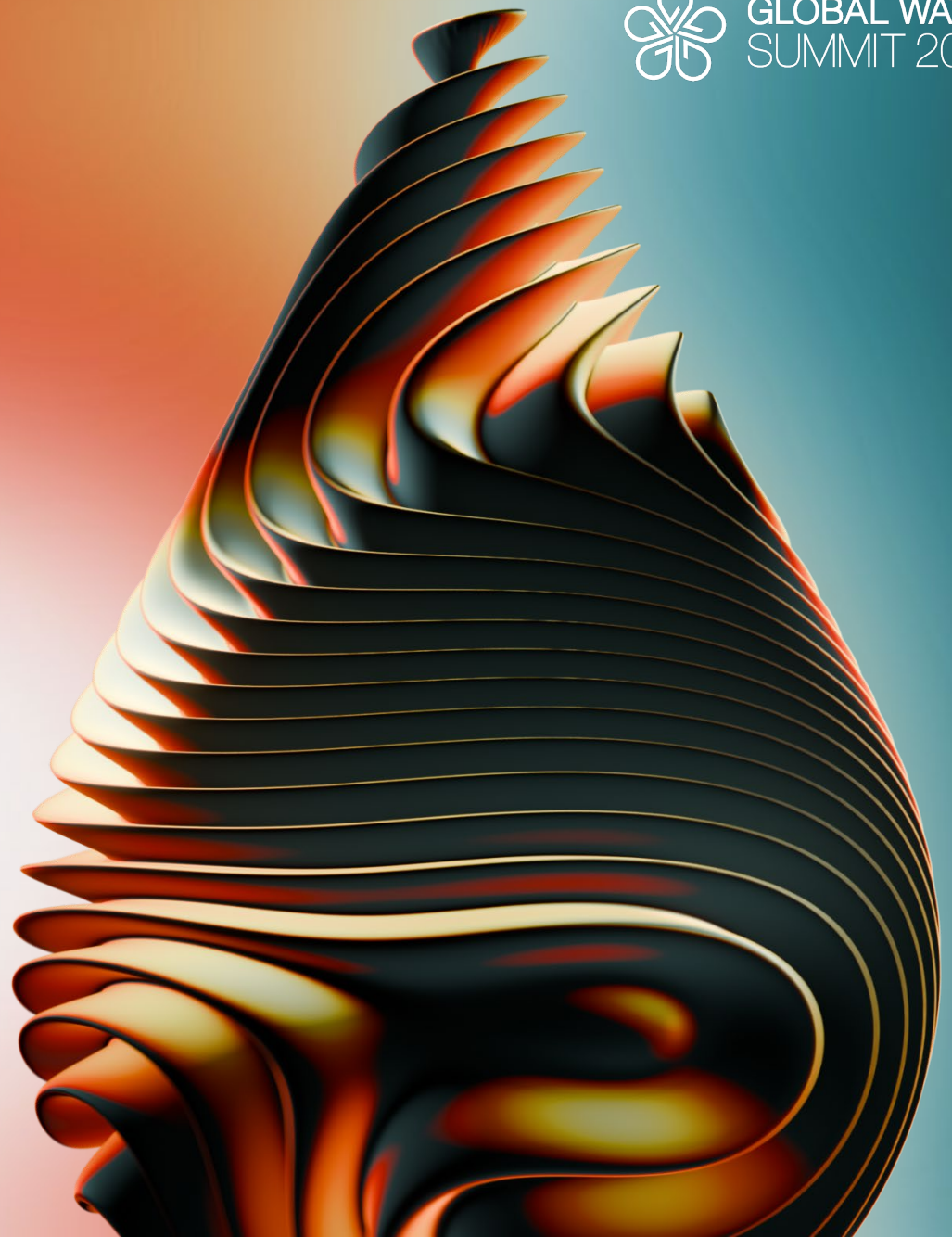
SCALING WATER REUSE INITIATIVE

GLOBAL WATER SUMMIT 2026

Unlocking Double Value Proposition

Wednesday 20th May, 14:00 – 15.30

Session Guide



Audience Q&A to start the discussion

GLOBAL WATER SUMMIT 2026

The topic I am most interested to learn more about from the panel:

1. How to make re-use competitive with other water sources and increase bankability of re-use projects
2. Recovery of energy and other resources from wastewater to enhance re-use economics
3. Challenges in implementing re-use projects
4. Off- balance sheet financing structures

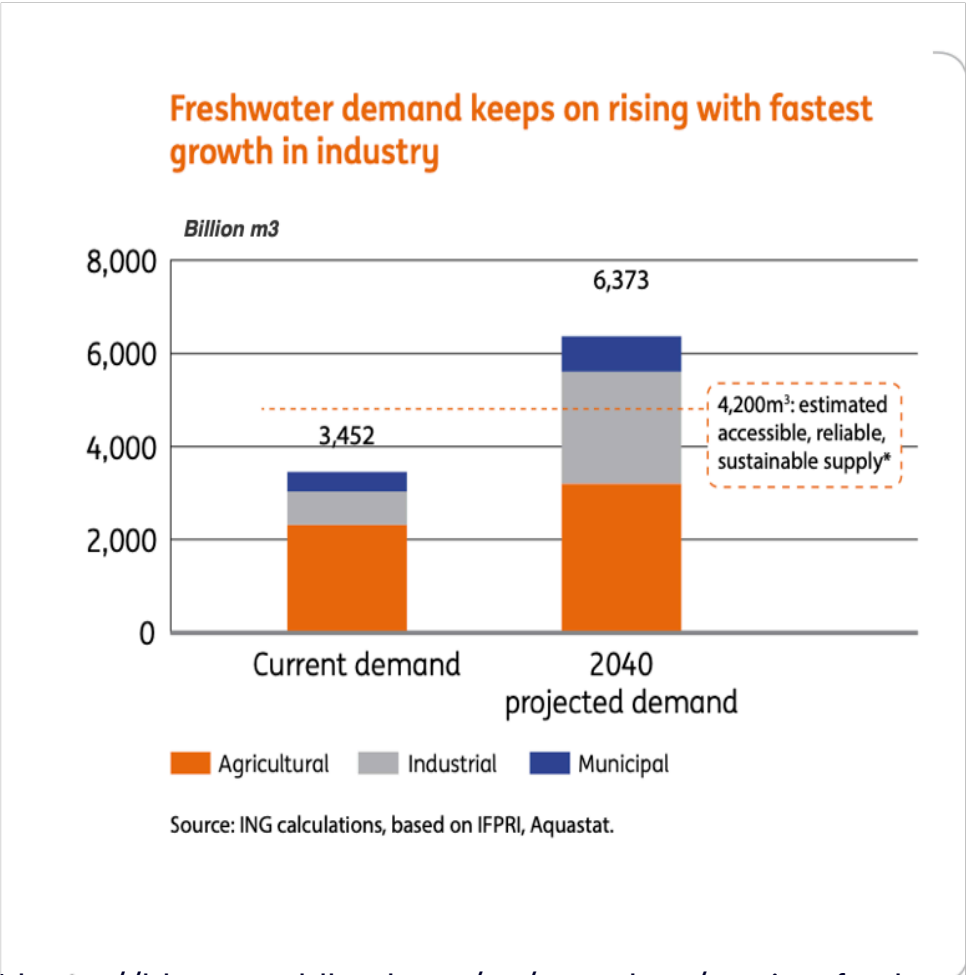
Which re-use market is likely to grow the fastest in the next 3-5 years?

1. Industrial water re-use (including on site and external - municipal and other)
2. Agriculture water re-use of municipal waste-water
3. Direct potable reuse

In which geographical market will water re-use become a significant source (>20% of total) :

1. OECD
2. Other Industrialised markets such as China and India
3. Fast industrialising Emerging markets
4. Middle East
5. None of the above

Industry is fast becoming the largest water user



- Today, around 70% * of global freshwater resources are used for agriculture.**
- At the same time, in most OECD countries, 40-50% of water is used by industry, usually more than agriculture or the municipal sector.
- Industrial growth in sectors such as data processing, semiconductors, energy and mining are likely to put further pressure on water resources
- The industrial users are unlikely to shift supply from agriculture and/or municipal sectors (with few exceptions) and will have to secure additional water supply via additive water sources and/or waste water re-use.

* https://blogs.worldbank.org/en/opendata/strains-freshwater-resources-impact-food-production-water-consumption

Industry is likely to be the biggest catalyst of reuse revolution

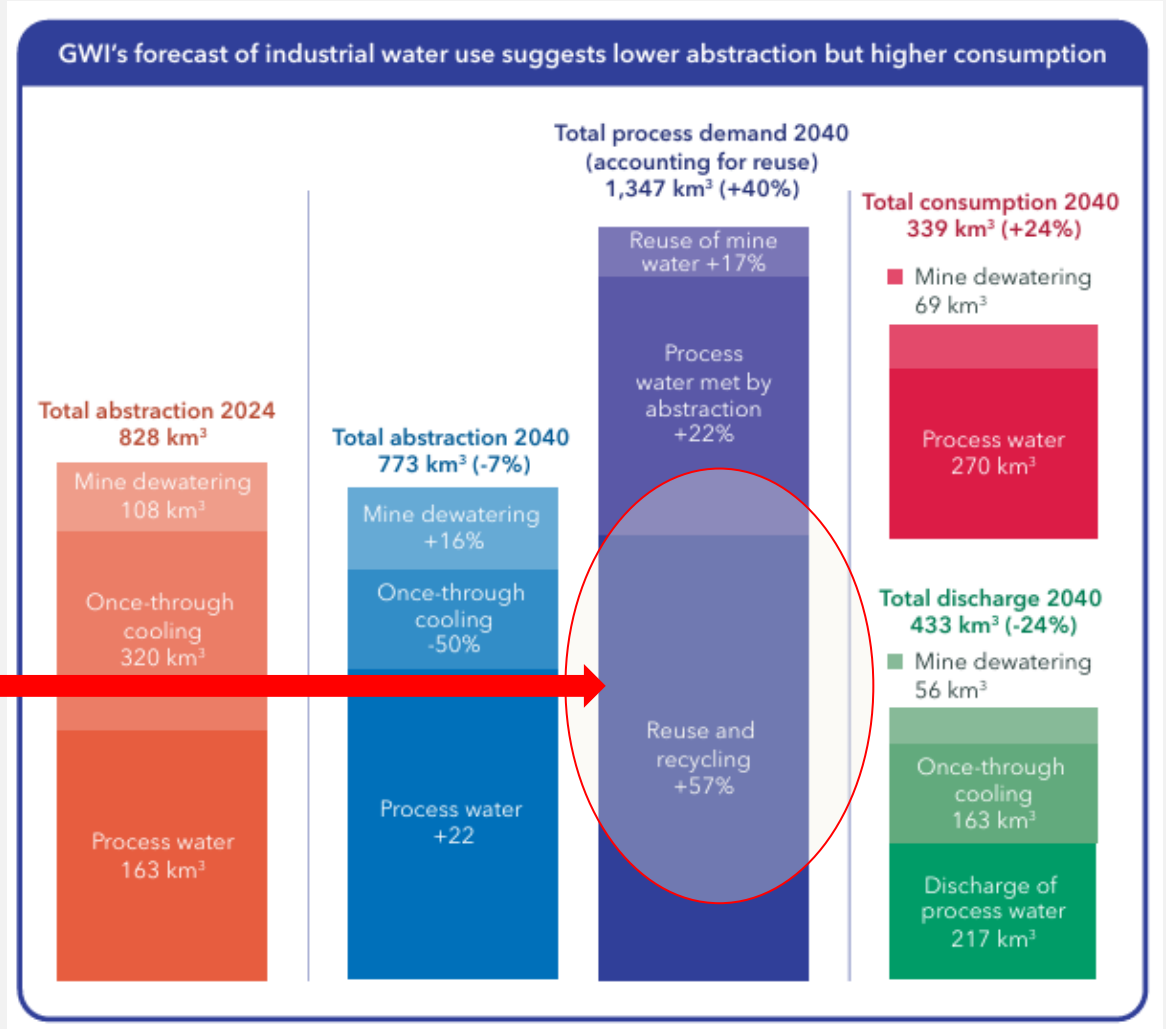
- In 2040, industries will need 40% more water than today to cover its water demand due to continuing industrialisation and data processing capacity increase

- To satisfy this demand, industries are starting to rely more heavily on new water sources such as re-use of own and municipal wastewater (subject to conveyance costs)

- Industry has little to no prejudice against reused water provided the water quality and costs are acceptable. The regulatory pressure to reuse will hence fall heavily on industry

- In 2040, water reuse is expected to cover around 57% of its water demand which will keep freshwater abstraction at similar levels as in 2024.

- Financing the water re-use capacity with private capital will require commercial viability and commitment from off-takers



Source: Smith Water Report Industry, GWI 2025

Double Value Proposition – how to make reuse a viable investment

Establish viable “price” vs cost

Take into account security of water supply short and long term, and “fit for purpose” treatment costs

Reduce discharge fees wastewater

(where possible)

Concentrated Brine Issue

Recover valuable resources

- Heat (reducing t energy use)
- Biogas,
- Nutrients, minerals, etc).

Off-balance sheet financing

Finding more than one off-taker can reduce the cost of finance in an off-balance sheet structure

Water reuse – Reynolds Water

CASE STUDY

TOBACCOVILLE, NORTH CAROLINA REYNOLDS WATERHUB

APPLICATION:
- Cooling tower make-up
- Open chilled water make-up
- Irrigation

TECHNOLOGY:
UV, MBR, RO, Bio-Filter

CAPACITY:
200,000 GPD

COMMISSIONED:
2024

- WaterHub intercepts 240,000 GPD wastewater from the sewer of the Reynolds Operations Center
- The water is treated to North Carolina reclaimed water standard onsite, turning it into high-quality water suitable for re-use in cooling tower and boiler feed makeup

Unlocking Double Value:

- Reynolds expects to reclaim circa 60 MG of water annually and reduce water withdrawal by approximately 40%
- Reuse will also decrease wastewater discharge by more than 90%
- Project will deliver enhancement of water infrastructure lifespan
- And Provide reliable safeguard and resilience against drought and water supply shortages

Water reuse – fit for purpose + saving on conveyance

CHALLENGE

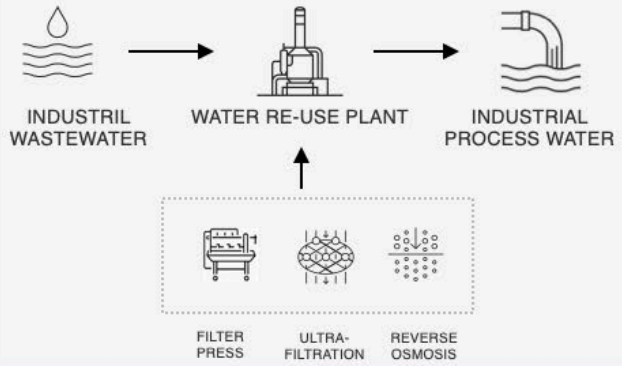
No conveyance infrastructure to discharge waste water

- New Semiconductor manufacturing plant required WW reuse due to inability to discharge WW due to limited conveyance
- They required outsourced and fully financed solution
- Very tight timeline for delivery requiring meeting the client's main plant manufacturing schedule

SOLUTION

Effluent Recycling - Water reuse supplied as a service

- Water re-use plant built by a global water solution partner, also supplying fresh water treatment solution
- Quality of the re-used water is ensured by advanced treatment process and quality monitoring by the global operator



INVESTMENT EXAMPLE

- Investment alongside a global operating partner in a company that developed and built the water re-use (plan to expand capacity)
- One of the largest industrial water re-use plants in Semiconductor industry
- The plant is converting effluent water into input process water and supplying it under a WaaS to the Client

Water reuse – energy recovery (biogas)

CHALLENGE

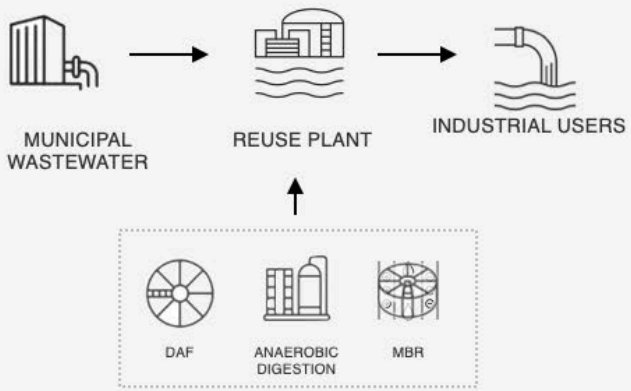
Water shortages, diminishing municipal capacity to supply

- Tightening discharge regulations put a F&B client at risk of being closed down at one of their major site
- Timeline of project delivery required tight scheduling, particularly challenging due to the space available on the site
- The industrial user also wanted to recover biogas from their waste water to improve economics and ESG targets

SOLUTION

Improving re-use economics with biogas recovery

- Efficient biological treatment approach
- Advanced technology to fit with the site space constraints
- Biogas recovery used on-site for CHP
- Experienced Operating partner with extensive AD and WTT experience

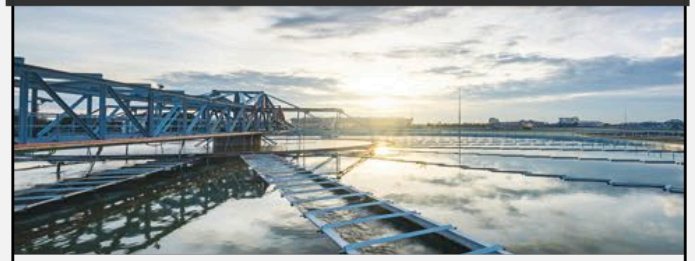


WAAS INVESTMENT EXAMPE

- Investment in a Company that built and commissioned a WWTP on the site of the industrial user
- The plant was built using a number of biological processes to achieve maximum efficiency
- Plant is operated and maintained by a water solutions partner with extensive WWTP experience
- The plant has been recently successfully commissioned

Water reuse – off-balance sheet financing for multi-user plant

CHALLENGE



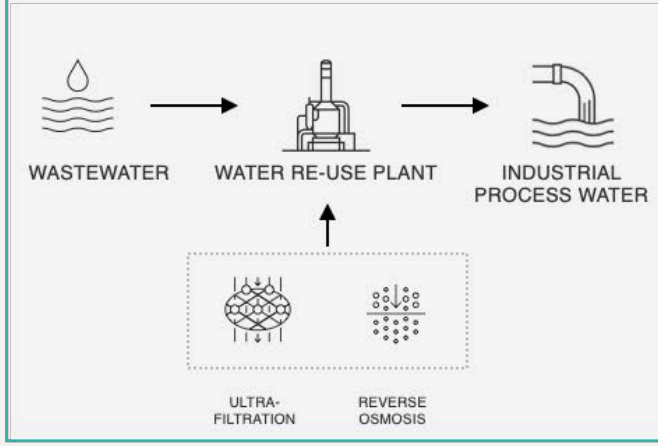
Growing industrial water demand

- Stretched local water resources shared between Municipal, Agriculture, and Industrial users
- Local authorities have enforced withdrawal limits to reduce industry's draw of local aquifers which are becoming saline from over-extraction by growing industry
- A local water utility treats waste water at an industrial park and would like to supply treated water to industrial users, but can not guarantee the water quality

SOLUTION

Effluent Recycling - Water reuse supplied as a service

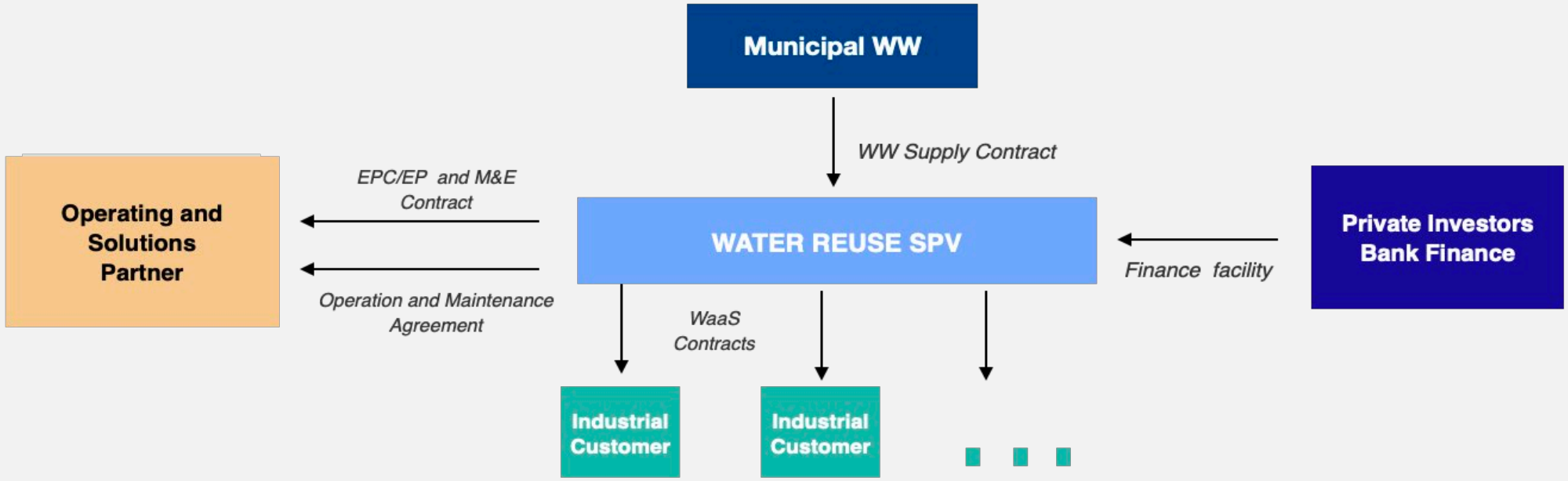
- Water re-use plant built by a water solution partner, taking water from the utility and supplying to industrial user under WaaS agreement
- Quality of the re-used water is ensured by a more advanced treatment process (outside utility treatment plant)



INVESTMENT EXAMPLE

- Private investor alongside a local operating partner in a company that developed and built a 40,000m³/day water re-use (plan to expand capacity), expanded to 60,000m3/day
- The plant is converting effluent water supplied by a local water utility from a local industrial park into input process water and supplying it under a WaaS to a growing number of industrial users
- Local Operating partner is expanding the customer base further that is driving expansion of the water -re-use plant capacity

Off-balance sheet in the multi-user approach



- Partnership model to deliver Water-As-a-Service (WaaS) to industrial customers require a clear delineation of responsibilities, and a well developed contractual framework
- Long term off-take agreements with off-takers and WW supplier - credit viability of the main off-takers is key in defining the cost of financing
- Multi-customer platform enables WaaS model to be structurally delivered as a service off-balance sheet

Key takeaways for panel discussion

Industrial users are the catalysts of water reuse and define economics

Industry will “own” the problem as supply of fresh ground water sources diminish. Conveyance costs will define the choice b/w own wastewater reuse and external sources (municipal WW, other industrial users/parks).

Resource recovery can support the economics of water re-use

Heat , biogas and nutrient recovery could provide significant additional economic benefit and make re-use more attractive to investors as well as industrial users and municipalities

Off-balance sheet financing is a way to bring in external private capital efficiently

Industrial users may find that external capital to be an efficient source of finance to speed up the reuse revolution.

GLOBAL WATER SUMMIT 2026

Panel Discussion

Re-use in OECD