



Water Management in Industry

Optimising Reduction, Efficiency & Investments

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Moderator & Panellists

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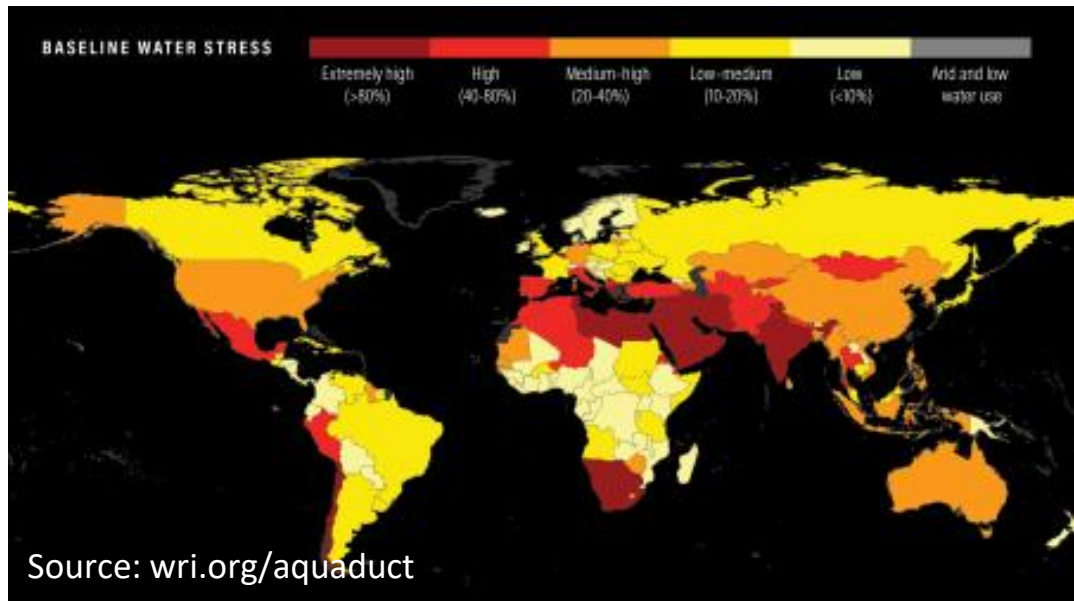
Senior Water
Treatment &
Integration
Technologist at Shell

Theme Introduction

THEME INTRODUCTION

“50% of the worlds population already live under highly water-stressed conditions”

Source: wri.org



Thought Exercise



A site has a consumption of:

500 m³/h
(12 000 m³/day)

Can you picture how much
water that is?

Thought Exercise



A site has a consumption of:

500 m³/h
(12 000 m³/day)



~ 5 Olympic swimming pools every day

or

The equivalent consumption of:



~ 83 500 people*

*average EU water consumption is 144 L/person per day

Water Efficiency in Production

Industry is also feeling the pressure of water scarcity:

- Climate change: Supply reliability / quality
- Competition for limited sources
- Public perception
- Pressure from authorities

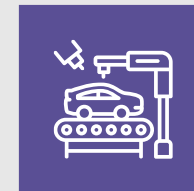
→ Translated to **corporate water efficiency goals**

Isle Water Efficiency Studies

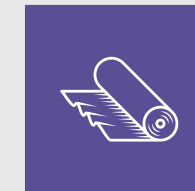


- ✓ > 20 projects completed
- ✓ ~25% water reduction opportunities

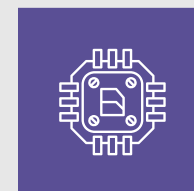
Sectors Served



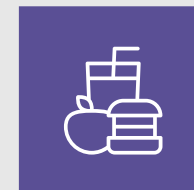
Automotive



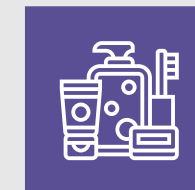
Textiles



Semiconductors



F&B



FMCG



Chemical

Panel Discussion



Panel Discussion

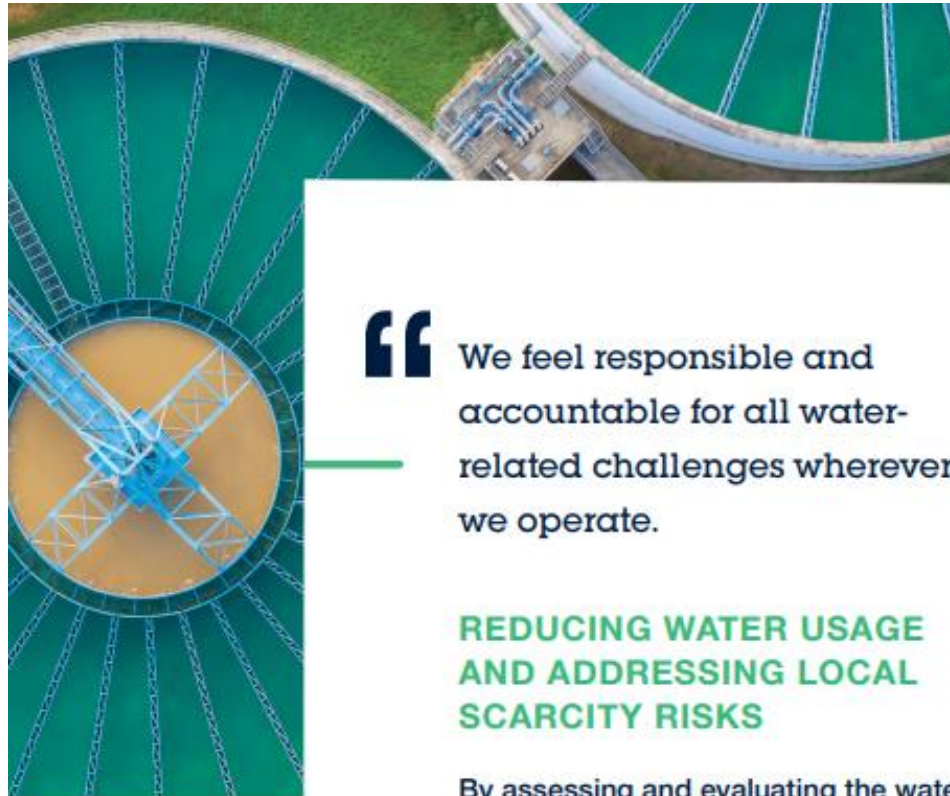
Topics



What are your company's **water reduction & efficiency ambitions?**

Water management

ST Targets *



“ We feel responsible and accountable for all water-related challenges wherever we operate.

REDUCING WATER USAGE AND ADDRESSING LOCAL SCARCITY RISKS

By assessing and evaluating the water stress level of all our manufacturing sites considering local constraints.

By ensuring all used water is appropriately treated before discharging it back into the natural environment.

By continuously improving water efficiency across our operations.



SG13
Improve our water efficiency **by 20%** by 2025 vs 2016.

SG14
Recycle at least 50% of the water used each year.



Ecolab's 2030 Impact Goals

Customer Impact Goals



Conserve 300 billion gallons (~1.1 billion m³) of water



Reduce greenhouse gas emissions by 6 million metric tons



Provide high quality and safe food to 2 billion people



Clean 90 billion hands

Operational Impact Goals



40% reduction in water intensity



50% reduction in GHG emissions
Science-based target approved by SBTi



100% renewable electricity



100% reusable or recyclable packaging



Diversity, equity and inclusion
35% gender and 25% racial/ethnic management level diversity



Goal Zero: no safety incidents

Water Ambition 2030 and Water Positive Future

Overall P&G Net 0 Strategy

Ambition 2030



**35%
REDUCTION**

water efficiency per unit of production vs. our 2010 baseline.



**5 BILLION
LITERS**
OF WATER FROM CIRCULAR SOURCES



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Topics



What are the **main challenges & bottlenecks** to achieving these ambitions?

Topics



Which **innovations, strategies and solutions** are you adopting to overcome these challenges?

Water Technologies and Application

Data & Analytics

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Utility Systems Optimization

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Cleaning & Sanitization

[Click to Learn More](#)

Water Treatment For Reuse

[Click to Learn More](#)

Water Vapor Recovery

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Alternative Sourcing

[Click to Learn More](#)

High Purity Water Optimization

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Closing Remarks



Key Take-Aways



Challenges & Bottle necks

- Rapid change is required
- Tightening discharge permits (EU Green Deal)
- Carbon vs. Water reduction targets
- Data availability & Quality
- Low cost of water



Solutions

- Digitalisation
- True cost = value of water
- Segregation of streams
- Knowledge sharing & Benchmarking
- Outside the fence: alternative water sources

Questions?



Thank-you



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