

waterNEXT

# Tapping into Tomorrow: Exploring Opportunities in Canadian Water Innovation

2023 National Water and Wastewater Conference

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Our Goal:  
Canada to be the  
first G7 country to  
reach **net zero.**

To accelerate the transition, we need to rapidly launch, commercialize, and scale climate solutions.

With the support of our Helix 5 partners - innovators, industry, investors, government, and academia - Foresight is relentlessly driving cleantech innovation in Canada.



# waterNEXT is Canada's Water Technology Network

We bring together stakeholders from across the water innovation ecosystem to accelerate the commercialization and adoption of technologies for the world's most pressing water challenges.



# waterNEXT works to advance the Canadian water technology ecosystem through:

1

**Acceleration Programs for Water Tech Startups**



2

**Industry and Investor Matchmaking for Established Ventures**



3

**Innovation Partnerships with Technology End Users**



4

**Stakeholder Engagement Across Water-Related Sectors**

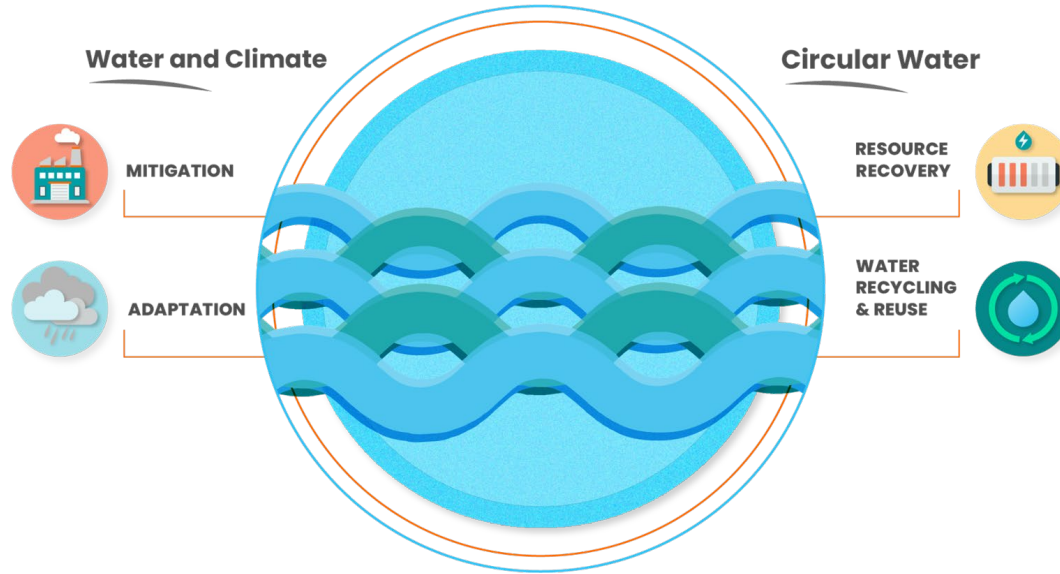


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**Global Showcase Opportunities for Canadian Water Tech**



# Key Focus Areas



Our goal is to achieve **less than 10%**  
municipal and industrial water loss  
by 2033

waterNEXT will work with major utilities and tech company partners to demonstrate how Canadian water systems can deploy Canadian innovation to improve their operating efficiency, significantly reduce losses, and cut energy waste.

Water is not a  
technology issue,  
but technology is a  
critical part of the  
solution.

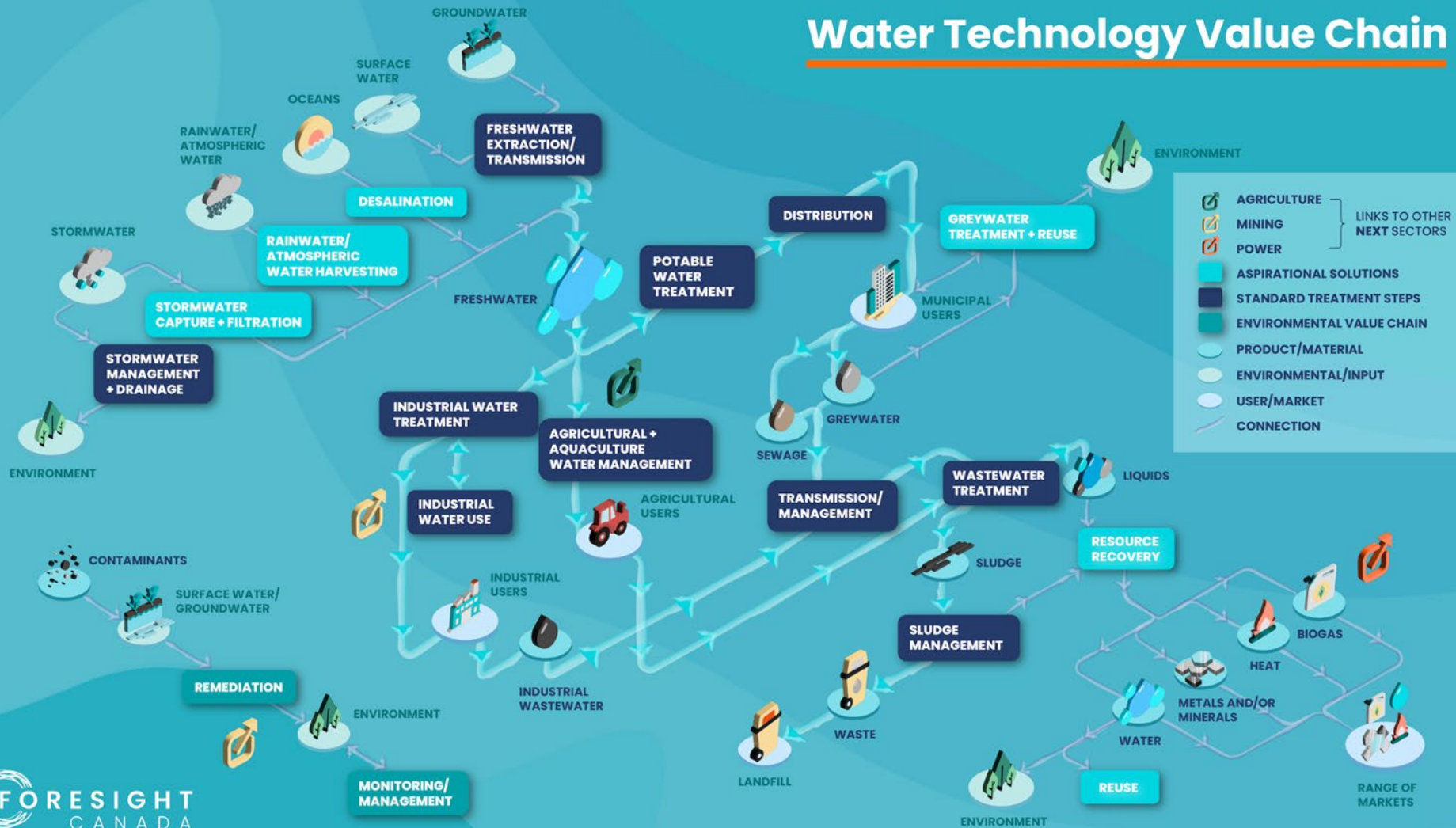
## Turn to your neighbour!

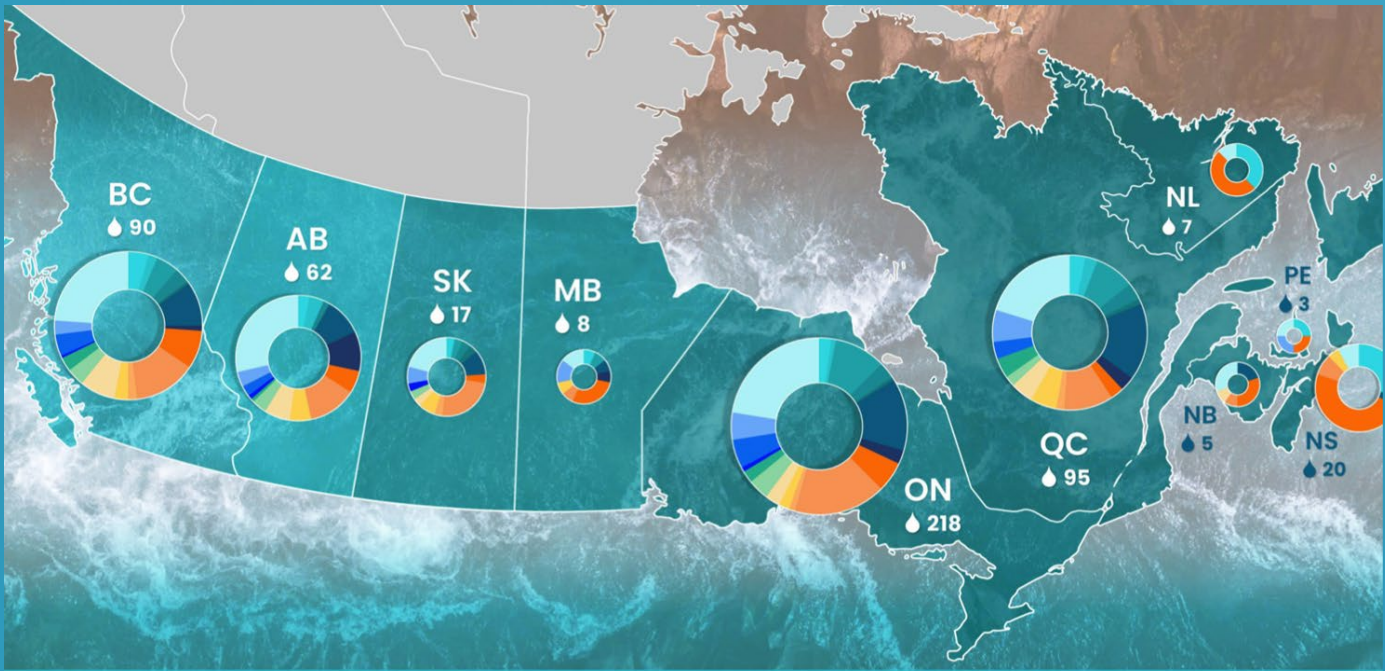
- How are you thinking about innovation?
- What gaps are you facing?
- How are you identifying technologies or solutions?





# Water Technology Value Chain





- 525 companies assigned
- Well-distributed value chain
- Treatment represents the largest concentration
- Wastewater treatment and monitoring / management in all provinces

# Water Technology in Canada

## Adoption & Export

- Adoption: CWWA, WaterNEXT
- Export: EDC, GAC/TCS
- Regional and sector-specific organizations (e.g. COSIA)

## Water Issues

- A range of problem holders, including utilities, industry, municipalities, Indigenous communities, non-profit organizations, etc.

## Research & Data

- Non-profits: IISD, Living Lakes Canada, DataStream, WWF Canada, Swim Drink Fish
- Networks: Canadian Water Network, Global Water Futures
- Universities and government research organizations
- Regional and sector-specific organizations (e.g. Atlantic Water Network)

## Ideation & Innovation

- Aqua Action (Aqua Hacking), Waterlution (Water Innovation Lab)
- Regional and sector-specific organizations (e.g. Rain It In)

## Technical Development

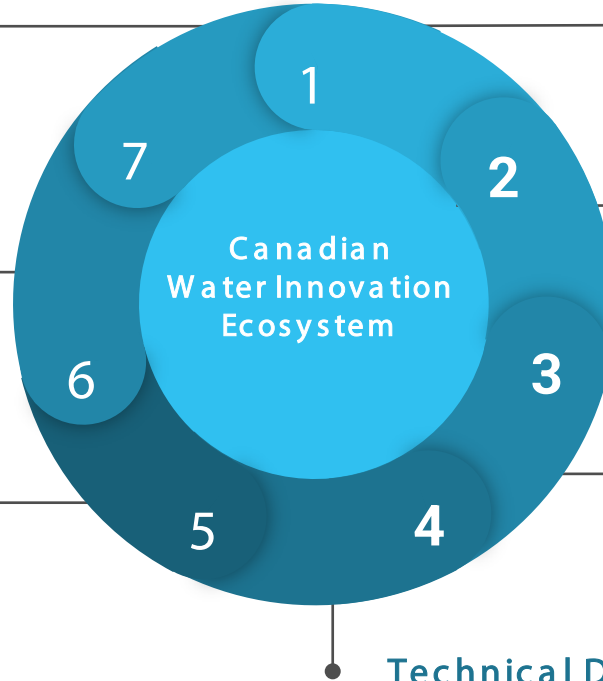
- NRC IRAP
- Regional and sector-specific organizations (e.g. OWC)

## Commercialization & Growth

- WaterNEXT, NRC IRAP
- Regional and sector-specific organizations (e.g. CDL)

## Pilot & Validation

- Aqua Action (Aqua Entrepreneur), NRC IRAP
- Regional and sector-specific organizations (e.g. ACWA)



# BCNZIN Water Cluster



- Water tech in BC is a growing ecosystem, with **100+** water and ocean tech companies working on solutions from desalination to digital technologies.
- **Cluster goal:** Strengthen BC's capacity to develop and deploy sustainable water solutions across communities, utilities, and industry.
- **Cluster focus areas:**
  - *Water & Climate:* Mitigation & adaptation
  - *Circular Water:* Resource recovery & water reuse
  - *Smart Water:* Digital solutions including sensors, software, and analytics

# Innova tor Spotlight: SENTRY

- **SENTRY** is enabling better, more timely decisions about treatment process performance
- **Mission:** Make biological processes intuitive, simple, and controllable.
- **Solution:** A robust real-time biological monitoring platform allowing operators to understand imbalance and optimize their processes
- **Projects:** 150 probes installed globally



sentry 

# Innovator Spotlight: Novion

- **Novion** was founded in 2021 by a team of engineering students from SFU
- **Mission:** Reduce urban flooding by helping cities adopt and manage green stormwater infrastructure
- **Solution:** Climate intelligence platform to help municipalities manage and monitor their green infrastructure
- **Projects** include Project Greenlight pilot with City of Vancouver



The background is a solid teal color with a bokeh effect of out-of-focus light spots in various shades of teal and white, creating a textured, ethereal appearance.

**Your innovation journey**

# Buyers are **clear** about their challenges.

We hear from critical stakeholders and rightsholders in roundtables, peer-to-peer groups and 1:1s what is *really* holding them back.

Budget Constraints	1	Ecosystem Supports	4
Low Risk Tolerance	2	Knowledge Gaps	5
Capacity Issues	3	Red Tape Barriers	6

And they are all at different stages in their efforts.



# Cleantech Adoption Platform (CAP)

This set of market-driven programs accelerates connecting supply and demand with supports that bridge the adoption gap.

- 1 Best-in-class database** to profile pilot projects, products and services.
- 2 Technology pathways and business cases** to ease capacity barriers.
- 3 Opportunities** for coordinated bulk purchasing to ease cost barriers.
- 4 Guidance on leveraging** federal and provincial resources.
- 5 Network and training** for knowledge sharing across decision makers.
- 6 Sustainability metrics** and targets to circumvent greenwashing.


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**This is all about action and execution - the hardest part!**


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# Metro Vancouver

## Sustainable Innovation Fund

- Metro Vancouver's [Sustainable Innovation Fund](#) supports projects that contribute to sustainability and innovation around water and waste. Active projects include:
    - Advanced resource recovery from sludge (hydrothermal processing + anaerobic digestion research, pilot, and demonstration facility)
    - Greywater reuse and rainwater harvesting demonstration
    - Intelligent water systems - making use of sensors and big data analytics
    - Next generation water supply and demand planning tool
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# SDG Connect: United Utilities

- **Partners:** United Utilities, one of the largest water/wastewater companies in England, with support from the Canadian Trade Commissioner Service (TCS) and High Commission of Canada to the United Kingdom (UK).
  - **Focus:** Combined Sewer Overflows and Water Quality
  - **Goal:** Explore Canadian technology solutions that address water quality issues (such as nutrients, contaminants, flow monitoring, source protection, and treatment processes), and solutions to improve their ability to avoid overflows of their combined sewer system.
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# Work With Us

Canada's largest water technology network

- Technology scouting
- Market research
- Project development
- Ecosystem Access



# waterNEXT

<https://foresightcac.com/waternext>

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