

Introduction



**WATER
INNOVATIONS
ALLIANCE**

Solving the World's Water Problems through Technology



**WATER
INNOVATIONS
FOUNDATION**

www.waterinnovations.org



Everyone from Presidents to CEOs to farmers to soccer moms say that water is our most precious resource....

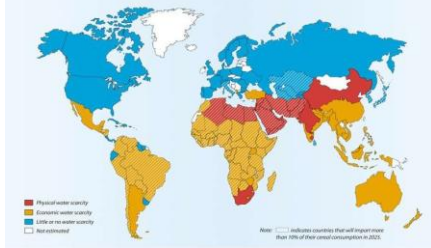


....but do they really mean it?

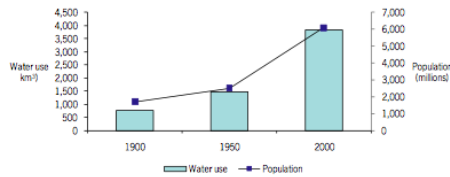


We have all heard the facts...

Projected Water Scarcity 2025



GDP Growth Tied To Water Use



- Only 3 % of the water on earth is fresh water -- little of that is accessible for human use
- Agriculture uses 70% of fresh water supplies
- 1.5 billion people currently do not have adequate access to fresh water ...this number is expected to jump to over 3 billion in a decade
- It's the 3rd largest "industry" on Earth-- \$550billion
- 75% of US urban water infrastructure needs to be replaced. It will take "hundreds of billions of dollars" according to the CIDC
- Developing countries like India, China, and Saudi Arabia need to spend hundreds of billions to put new infrastructure in place
- Growing problems of climate change, energy-water nexus, population growth, pharmaceutical pollutants....

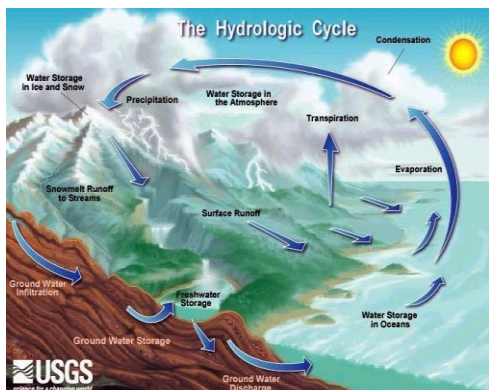
\$550 billion this year

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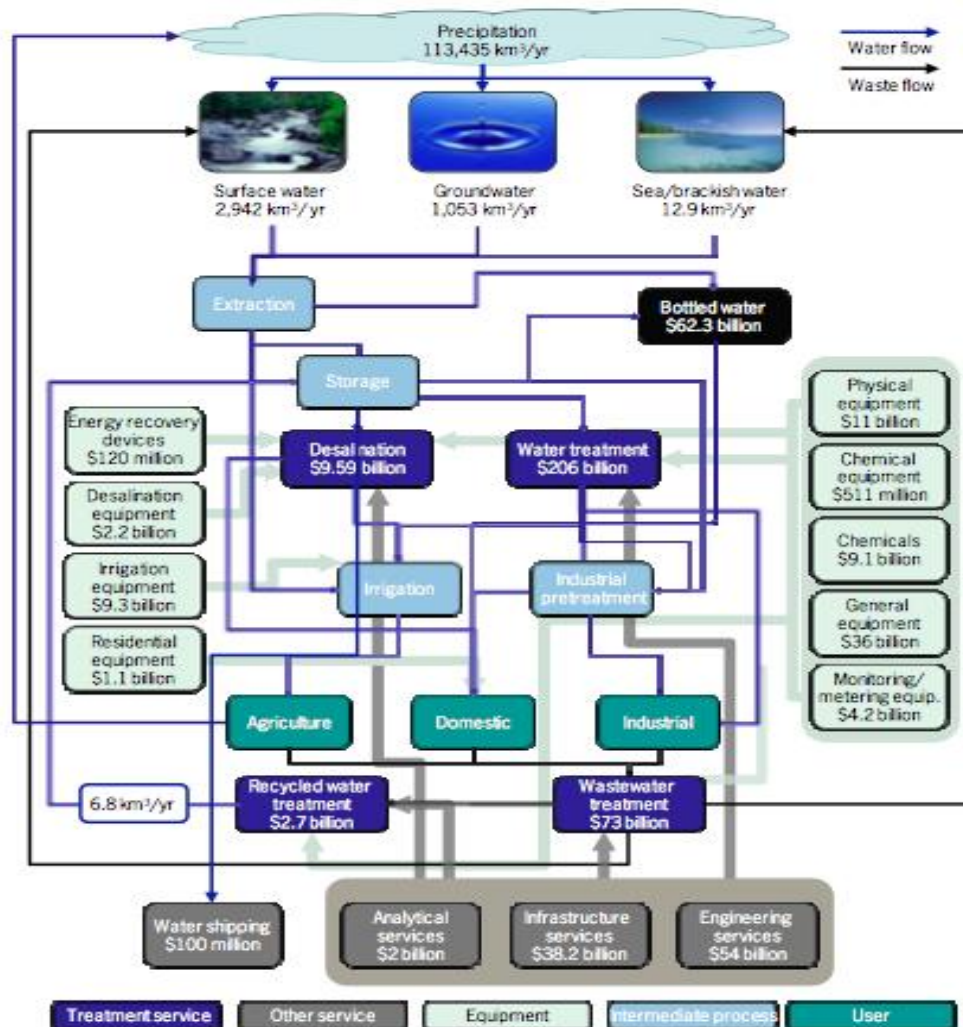


Incredibly complex system of overlapping ecosystems, jurisdictions and business interests ...

Hydrologic Cycle



The Water Economy



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Examples of water innovations in action...

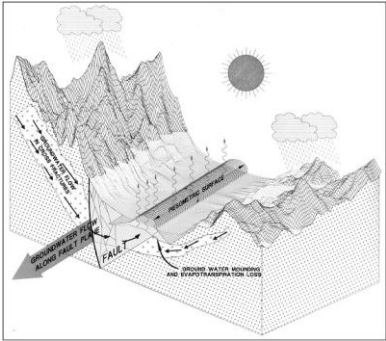
Veolia Innovation
Accelerator



QuickTime™ and a TIFF (Uncompressed) decompressor are needed to see this picture.



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How important are advanced water services? Case Study: Boston, MA.

What's this ? 

FACTS:

- 2 million people without drinking water for 3 days
- Pipe was 7 years old
- Back-up pipe was never repaired 4 years ago to save costs



....and what are these?



Boston City Hall
Micro-wind Power



Boston's \$5000
Solar Trash Bins



Boston's Biofuel
Taxi & Mayor

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Reality Check #1....

... the way we move, treat and filter water has changed little since the time of Julius Caesar:

Innovation Timeline

- 500 BC Water Filters
- 300 BC Aqueducts
- 1854 Chlorine Disinfection

- We move water through trenches & tubes
- We force water through tiny holes to clean it
- We put poisons in water to kill other poisonous things



Reality Check #2....

....we expect it and accept

Federal Spending

it:

- \$1.8bn Nanotechnology
- \$300mm Federal fleet of hybrid cars
- \$180mm Volunteers at CNCS
- \$175mm Water research

- Little innovation
- Sporadic technology development
- Institutional and regulatory barriers to implementing new ideas
- Miniscule science and technology funding
- Tweaks instead **BOLD** new ideas



Reality Check #3....

Water Venture Capital

- Only \$130 million invested in 33 deal in '09
- VCs don't get water
- If they did, they almost never do a deal

Water Tech Centers

- Lone NSF water center due to sunset soon
- Less than 10 US university water tech centers
- Budgets rarely surpass \$1.5mm annually

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... its not getting better:

- **Corporations are spending a pittance on mid-to-long term water R&D**
- **Investors are not funding cutting-edge water technology start-ups**
- **Only a handful of university water technology centers**
- **Government doesn't have a coordinated water program and it isn't funding research at an acceptable level**



Why has this happened?

Answer: *The reasons are varied and complex*

- **Customer Pricing:** Real cost of water is not paid and rarely even appropriately monitored
- **Public Safety:** Water is a key part of human health breeding a “safe & slow” mindset
- **Corporate Atmosphere:** Economic down-turn; M&A’s; quarterlies as king; regulatory costs
- **Fix vs. Prevent:** “Fix it” when it breaks mindset
- **Political Backwater//Football:** Water rarely has a seat at the political table and when it does its usually a war
- **Silos:** Tunnel vision on how the entire water ecosystems fits together and managing that bigger picture
-and many many more

“Think of the **true cost** of water as an unwritten tax on all business and all aspects of your life”



**So we decided to try and change things.
In November 2008, the WIA launched:**



WATER INNOVATIONS ALLIANCE

The Water Innovations Alliance is a 501c6 industry association focused on developing new funding, reducing regulatory barriers, increasing collaboration & raising awareness for cutting-edge water technologies and the problems they solve.

Members includes Fortune 500 companies, start-ups, economic development organizations, universities, NGOs and investment firms.

The Alliance is located in Washington, DC, Shelton, CT & Cambridge, MA

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Water Innovations Alliance Members:

MANAGEMENT

- **FM Modzelewki, Exec. Dir.**
- **Vince Caprio, COO**

Advisory Board

- **Fabien Cousteau, Ocean Explorer**
- **Prof. Tzahi Y. Cath, CSM**
- **Prakash Chakravarthi, Aqleo**
- **Dr. Yoram Cohen, UCLA**
- **Kevin M. McGovern, Water Initiative**
- **Delbert Wesley Mullens, Investor**
- **Matthew M. Nordan, Venrock**
- **Dr. Raphael Semiat, Technion U.**
- **William Brent, Weber Shandwick**
- **Finn Nielsen, Veolia**
- **Mike Evans, KL Gates**
- **Josh Wolfe, Lux Capital**

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WATER INNOVATIONS FOUNDATION

- 501c3 Research Foundation
- Launched Jan. 2010
- Focus on research, reports, standards development and other educational programs
- Peter Williams, IBM Big Green's CTO serves on Board
- New TallyFox developed web-platform & site

Hitting the Ground Running: A Year of Achievement

- Testimony before the House Science Committee
- Fighting for and passing several key pieces of pro-water innovations legislation
- Launch of the Water Innovations Foundation
- Two hugely successful events in NYC and Chicago --participation in dozens of others
- Over two dozen members and a world class advisory board
- Organized high level trade mission to India
- Collaborations with media companies, government agencies, universities & other NGOs
- Successful launch of Water IT Committee
- Successful public information campaign through the media, website, and online services





Water Innovations Subcommittees

What is Water IT?

Basically, a “smart water grid.” It’s a system for intelligently and effectively managing our interaction with water, via a network of sensors, meters, satellite data, flow monitors, quality testing, and other intelligent devices and management tools.

Why Water IT?

While improvements to physical infrastructure are slow to implement --faster and lower cost information technology (IT) tools can help manage existing infrastructure more effectively. www.waterinnovations.org

- To ensure aggressive progress as well as open development and debate, the Alliance works with our members to develop working groups on key water innovation issues and developments:
 - The initial group was the Water IT Committee
 - Launching next: Energy Water Nexus and Advanced Treatment and Filtration
 - Under consideration: Food, Beverage & Agriculture; Resuse; Oceans.
- Case Study: *Water IT*
 - Chaired By IBM. Co-Chaired by Intel and Hydropoint
 - Meets 2x per month
 - Regular guest speakers
 - Focused policy and research agenda
 - Launching industry survey
 - Put the issue of a smart water grid on the map



Looking ahead in 2010 and beyond

Policy Agenda

- Increase research funding
- More pilot projects
- Lower regulatory barriers to innovation
- New Water Research centers
- Creation of interagency water initiative
- Create Smart Water Grid

- Dayton Water Conference
- Other Events: Annual meeting in Chicago; NYC investor summit; and more
- Washington DC Policy Tour
- New Committees: Advance Filtration, Water Reuse, Energy-Water Nexus, and others
- Numerous surveys and reports in development
- Water Innovations Database: Research, IP, mapping and more
- Water Innovations Awards
- New online collaboration and data platform via TallyFox
- Aggressive public policy agenda
- And much, much more



WE NEED YOU TO **JOIN US** TODAY!!!!

Become a part of the Water Innovations Alliance



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