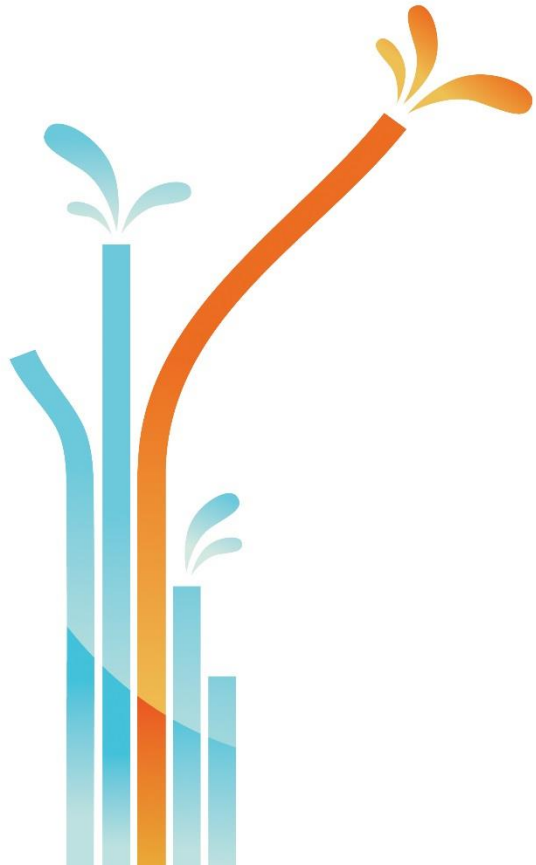


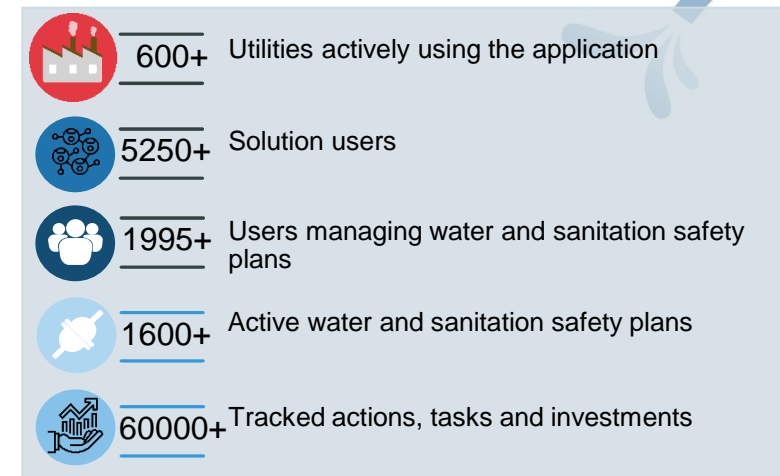
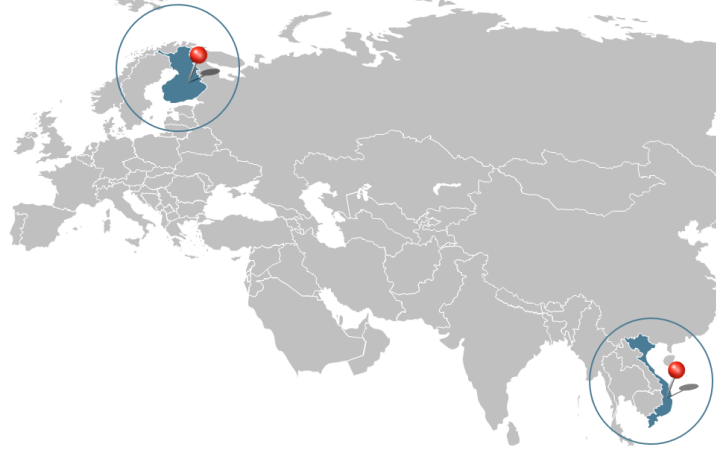
VESIOTEC WATER AND SANITATION SAFETY PLANNING SOLUTION FOR REGIONAL OR NATIONAL IMPLEMENTATION

JANI HÄRKKI
VESIOTEC OY
HELSINKI, FINLAND

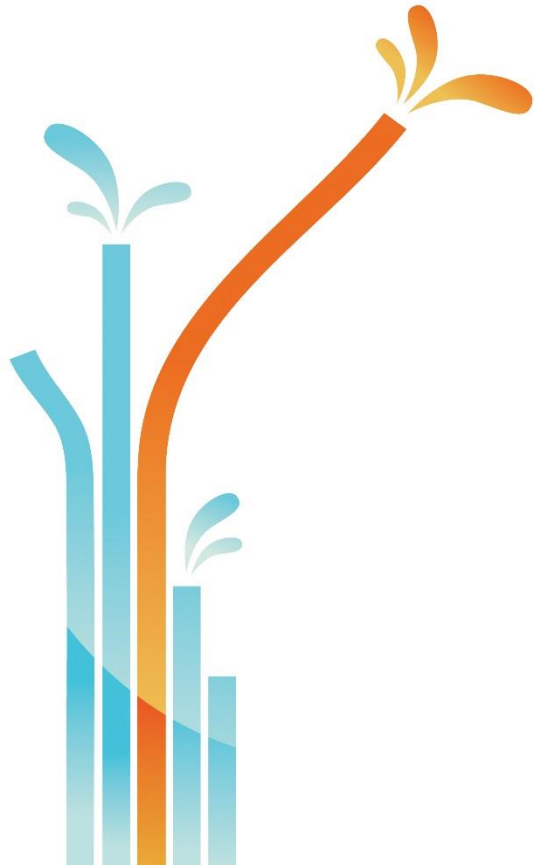


ABOUT VESIOTEC

- › Finnish company providing water (WSP) and sanitation (SSP) safety and security management tools and services
- › Over 600 water utilities using Vesiotec solutions globally
- › Provides the leading IT tool for the management of national water safety planning
- › Offices in Helsinki, Finland and Hanoi, Vietnam

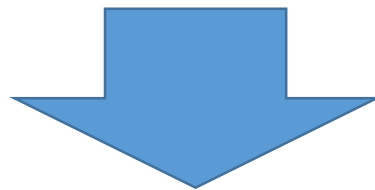


CURRENT CHALLENGE

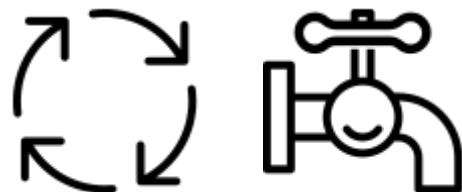




Population and economic growth



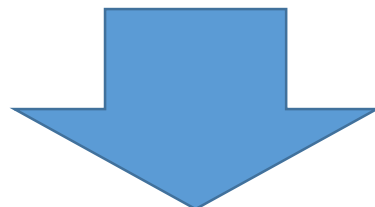
Increased demand for safe water and increased amount of waste water



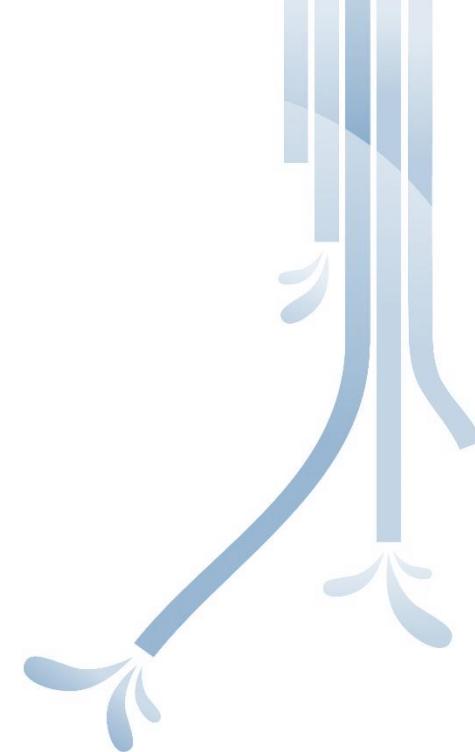
HOWEVER



Climate change

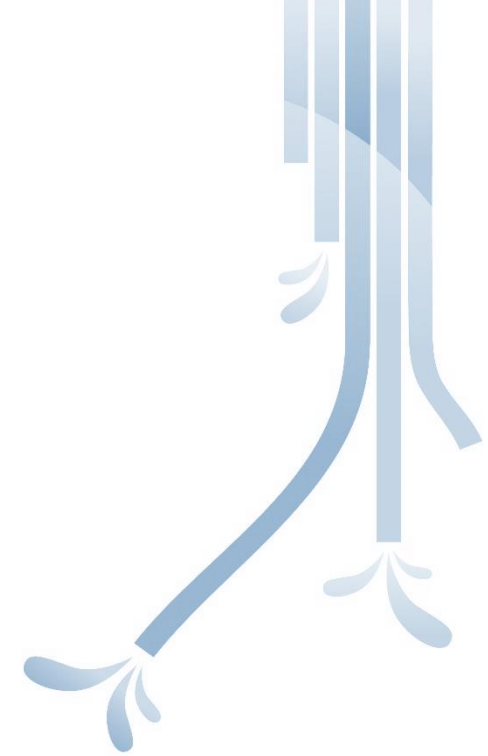


Water scarcity increases and clean water resources become more valuable

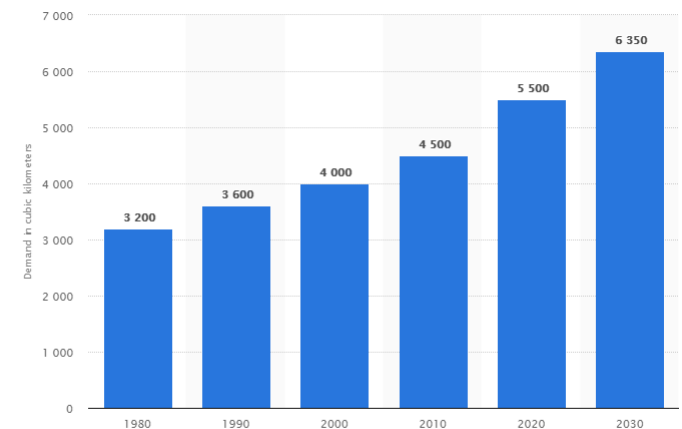


INCREASED DEMAND FOR SAFE WATER

- › Expansion and modernization of existing and construction of new water and sanitation utilities
- › Increased stress on existing water resources
- › Need for new water resources, often either already contaminated or in risk of of being contaminated
- › Requires financial resources, holistic management and government supervision

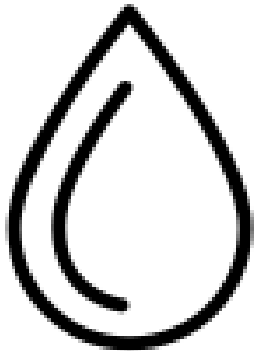


Projected world water demand 1980-2030



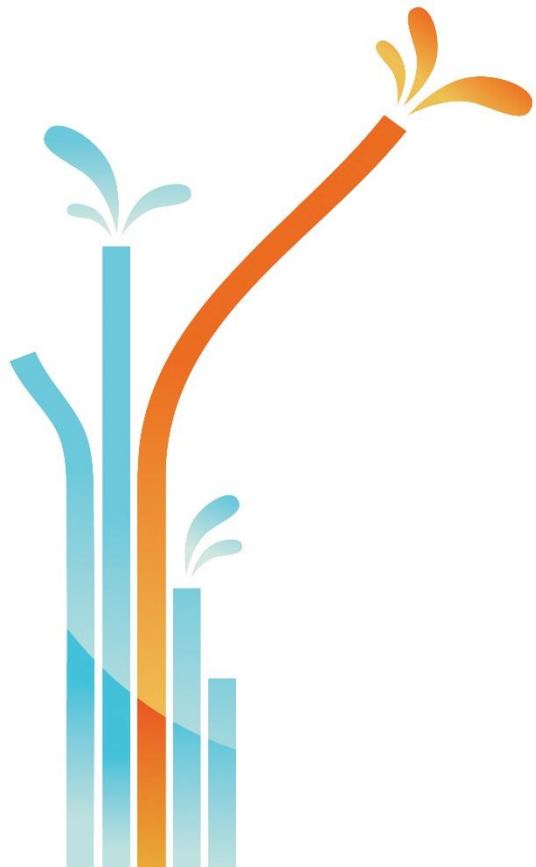
© Statista 2019

› CHALLENGES FACED IN MANAGING WATER SAFETY AND WATER RESOURCES



- › Lack of realistic investment plans answering real need
- › Regulatory authorities' and water/sanitation utility operators' resources inadequate for monitoring water and sanitation utilities
- › No systematic methods for managing and auditing water and sanitation safety plans – inadequate preparations
- › No access to quality data or benchmarking covering all utilities
- › Privatized and outsourced water and sanitation utilities more challenging to monitor – difficult to agree on the method for reporting

PROPOSED SOLUTION

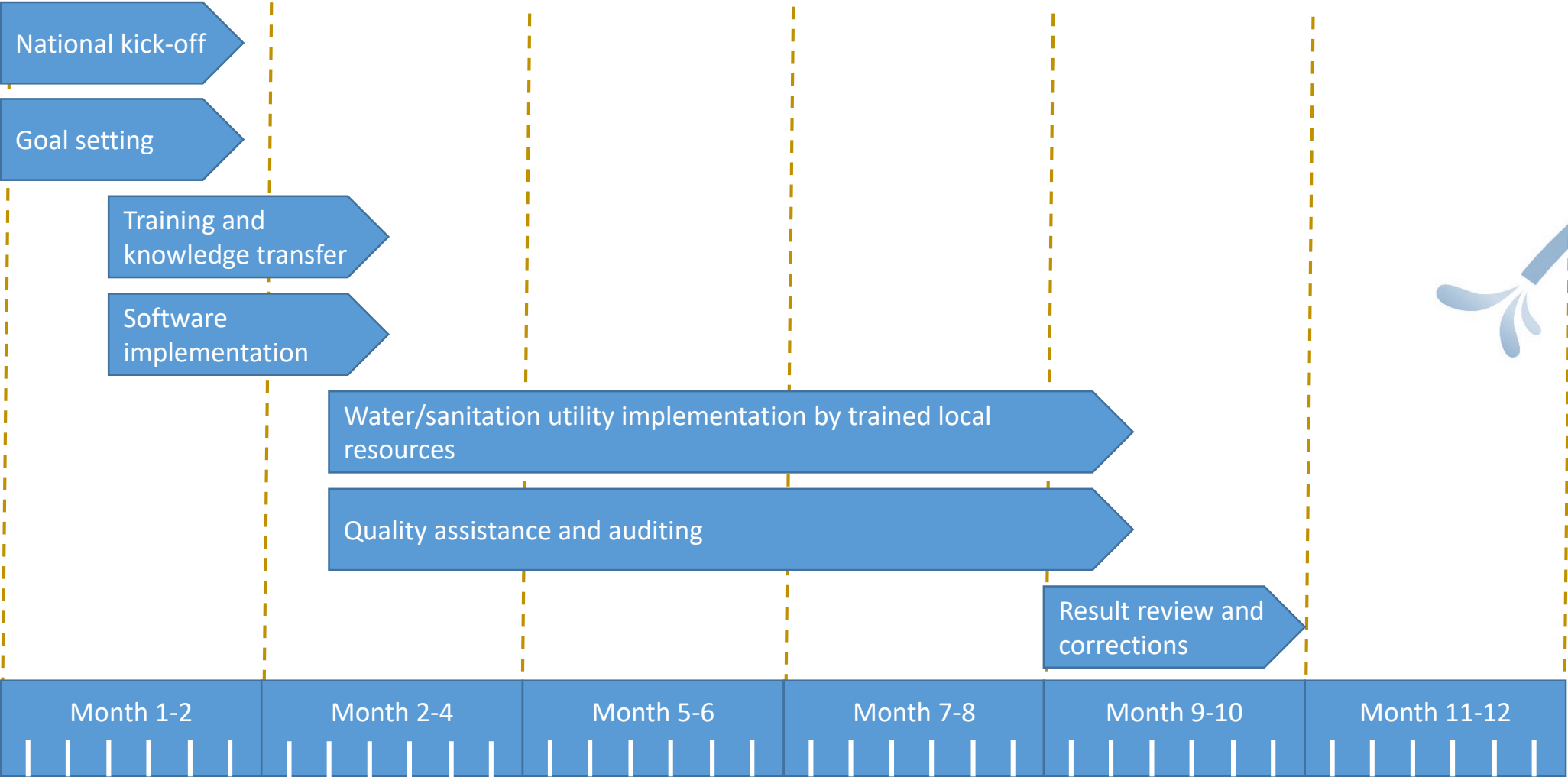


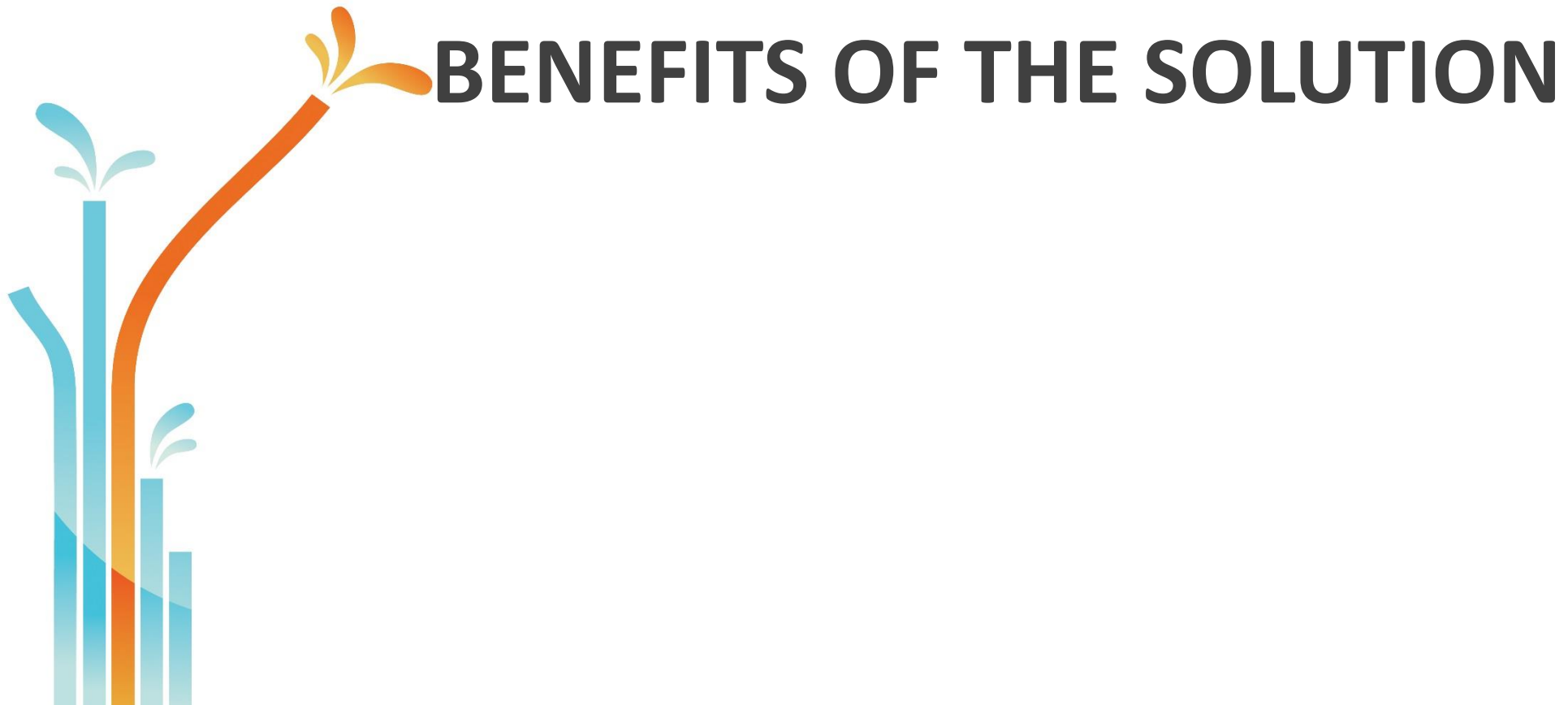
VESIOTEC WATER SAFETY PLANNING SOLUTION

- › Systematic evaluation and management of water and sanitation safety by utilities through risk management, activity tracking and incident reporting
- › Realistic investment prioritization based on real needs and benefits
- › Reporting to regulatory authorities, management reports on critical action plans and investments – decision support
- › Regional/national visualization and benchmarking on the status of water and wastewater utilities



NATIONAL IMPLEMENTATION PROJECT (9-12 MONTHS)





WHO BENEFITS FROM THE SYSTEMATIC WATER AND SANITATION SAFETY PLANNING?

We know our utility's critical risks and where to prioritize resources



Utility management

We know what are the risks and how they are being managed. We also have solid information what investments to prioritize



Water company directors and board

We know what to do if something goes or almost goes wrong



Utility operators and workers

We know that our water company is reliable, safe and able to protect the environment



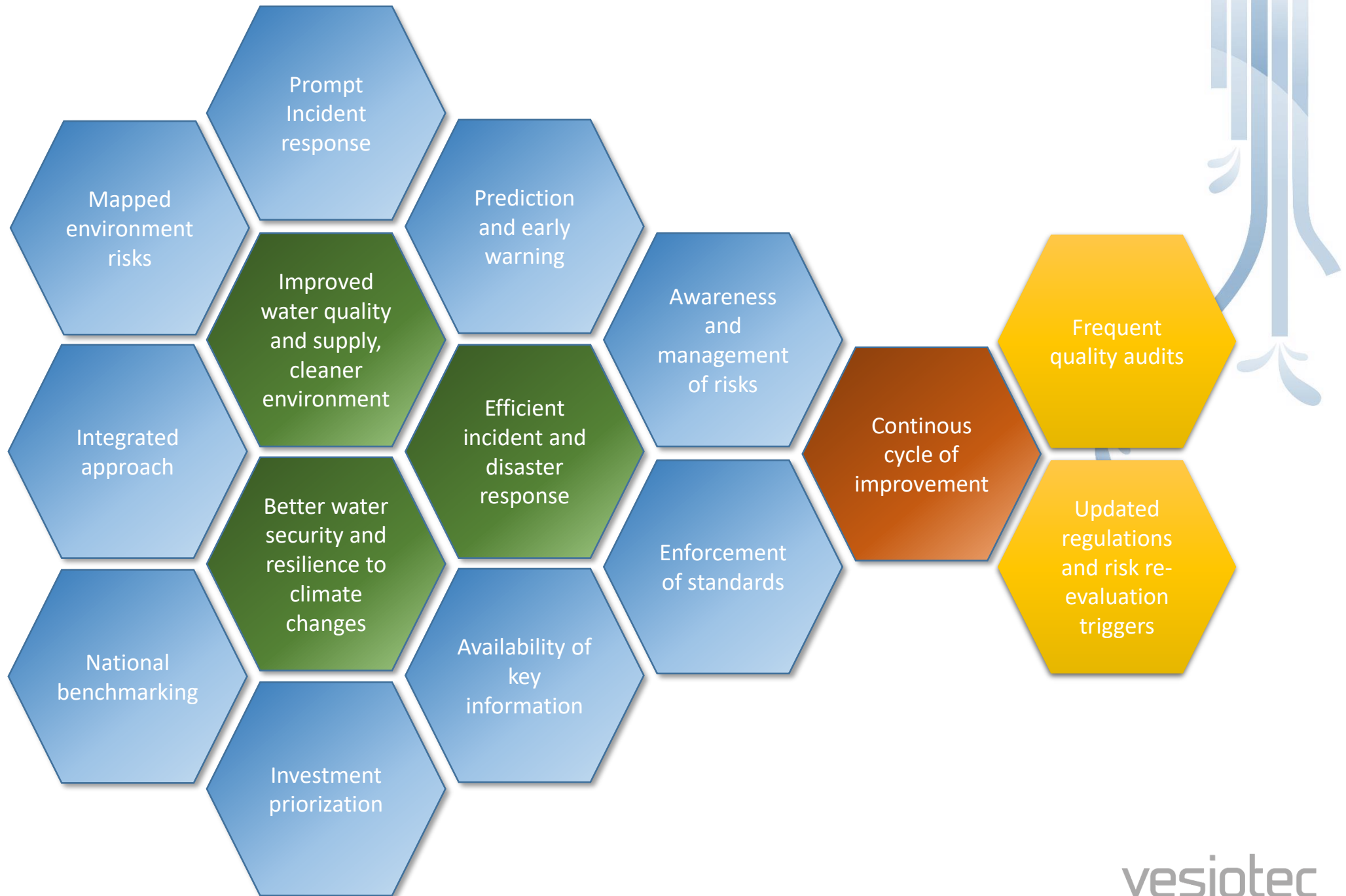
Water users and customers

We have easily reliable and up to date information on water utilities and can monitor safety of water resources

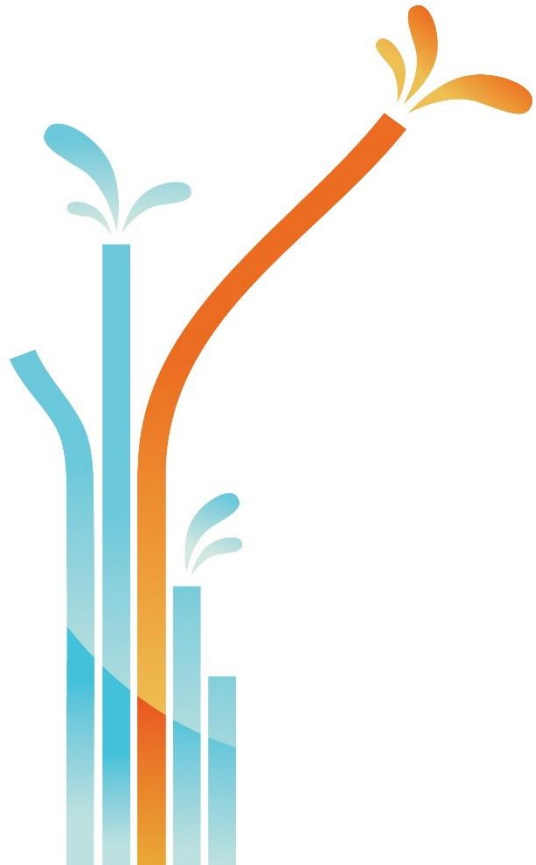


Regulatory authorities

BENEFITS



NATIONAL REFERENCES



REFERENCES: FINLAND WATER SECTOR

- › Vesiotec solutions implemented nationally in all water and wastewater utilities
- › Ministry of Social Affairs and Health requires the kind of reporting and information provided through the use of the solution
- › The ministry monitors and manages national health regulation attendance, risk and disaster preparation, operational benchmarking and investment requirements centrally
- › Water utilities have found the solution very useful – actively involved in developing next version

REFERENCE: VIETNAM WATER SECTOR

- › A national implementation of the Vesiotec solution ongoing in Vietnam for 52 wastewater utilities and 96 water utilities
- › Vesiotec solution implemented by 4 water and wastewater utilities in Vietnam during a pilot phase of the project
- › Implementation at the remaining utilities planned to start during first half of 2020
- › Main challenges being solved in Vietnam are vulnerability of water resources combined with increasing amount of wastewater, decreasing amounts of groundwater, contamination of surface water resources and low capacity of sustainable management of water and wastewater utilities

REFERENCES: KENYA WATER SECTOR

- › Vesiotec is, together with the Kenyan water ministry, implementing a national water and wastewater safety planning solution in Kenya
- › Primary need in Kenya related to solving management challenges, answering to lack of knowledge with a systematic package of tools and allowing the authorities to understand and manage national challenges
- › Implementation to start in 2020



THANK YOU!

For queries, please contact Vesiotec Oy, Finland

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vesiotec