Swiss EurEau Water Summit 2026

Climate-Smart Water Management
Challenges and solutions in Italy

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Zürich

21.10.2026



THE ITALIAN SCENARIO

Systemic vulnerability



Climate change is permanently transforming the global water cycle

Extreme climate events

Extended droughts and heavy rainfall

Obsolete infrastructure

High percentage of losses

Multi-sectoral stress

Severe impact on agriculture and industry

CASE STUDY

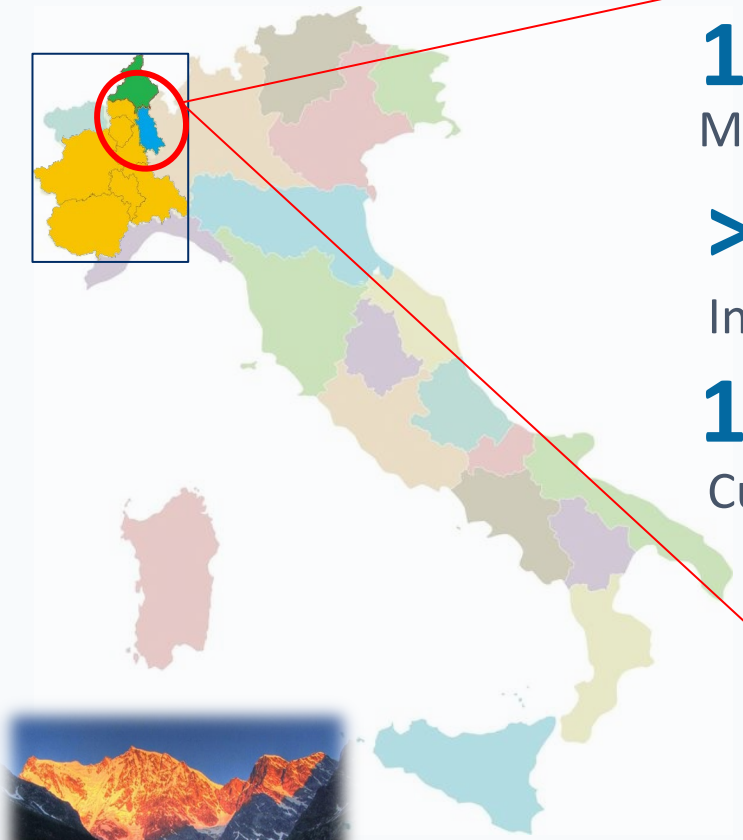
Acqua Novara.VCO Experience







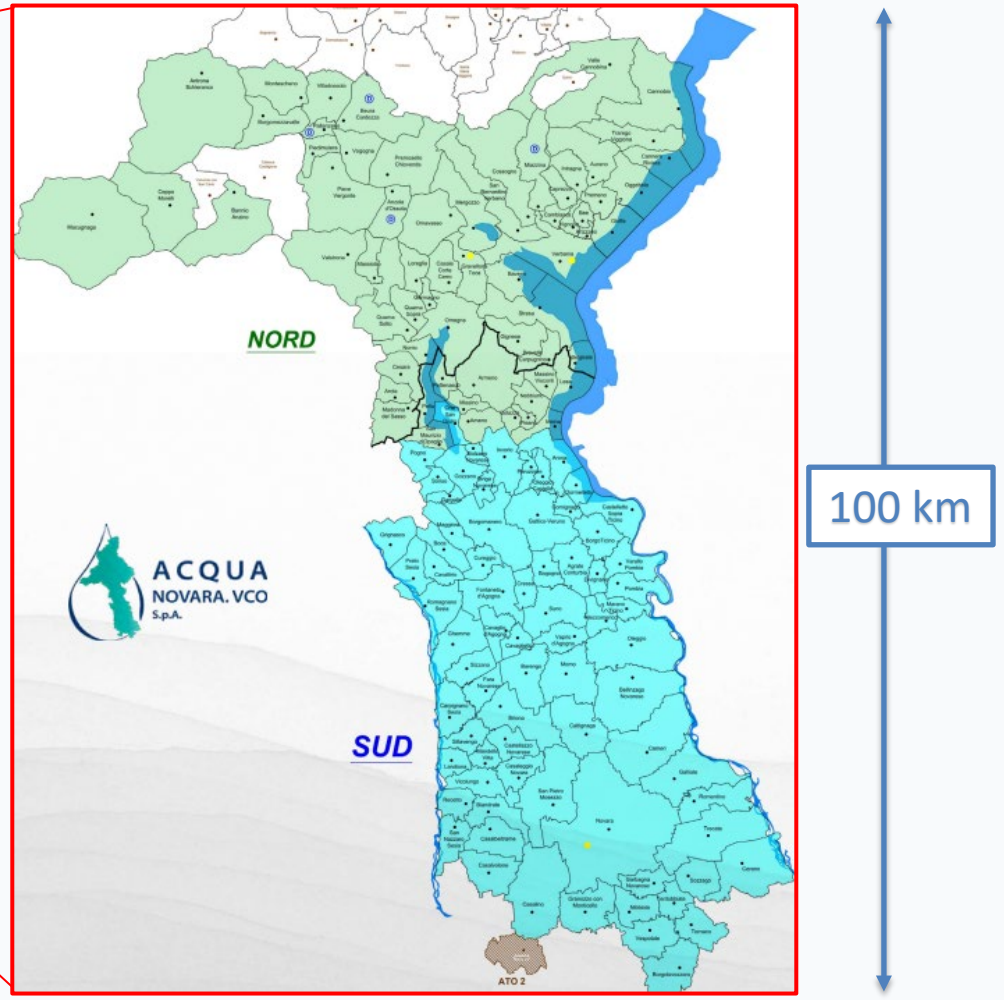


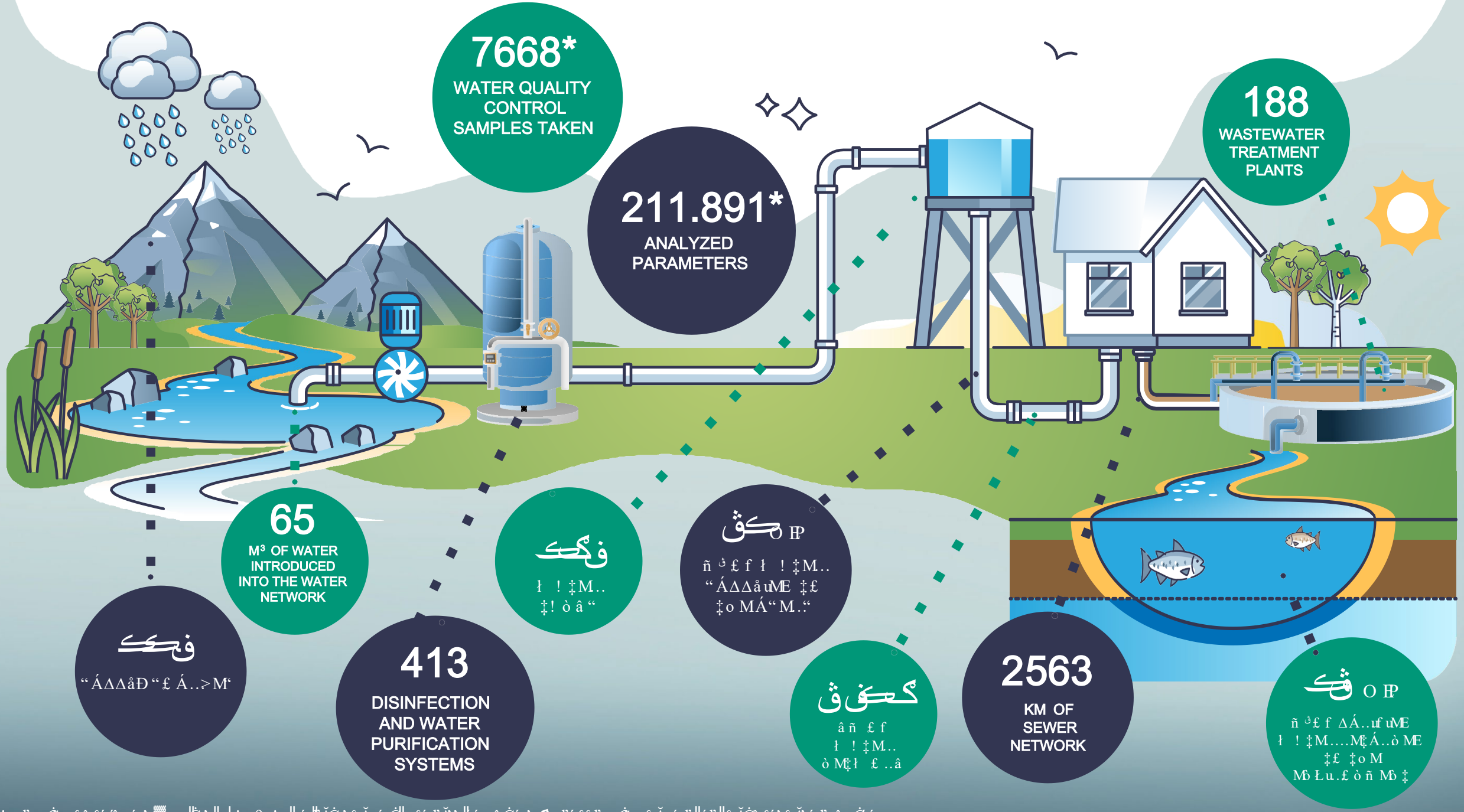


139
Municipalities

>450k
Inhabitants

187k
Customers




7668*
WATER QUALITY CONTROL SAMPLES TAKEN
211.891*
ANALYZED PARAMETERS
188
WASTEWATER TREATMENT PLANTS
65
M³ OF WATER INTRODUCED INTO THE WATER NETWORK
413
DISINFECTION AND WATER PURIFICATION SYSTEMS
2563
KM OF SEWER NETWORK

The Eastern Piemonte Paradox

For generations, our water supply was **guaranteed** by lakes, rivers, and glaciers. Now, climate-driven water stress is putting our water security at **serious risk**

Average temperature variation compared to the average observed in the thirty-year period 1961 - 1990

2023

+2.27°C

2024

+1.90°C

2025

+1.92°C

2026

+2.95°C

Partial data from January to June

Our territory is running faster than the global average.

Climate change imposes a new water management paradigm

The integrated plan of investments and sustainability

AGENDA 2036
ACQUA NOVARA.VCO
INVESTIMENTI E SOSTENIBILITÀ

€ 565 MILLION

VQVCN'KP XGUVO GP V

The largest public investment plan ever approved in our area (2024 -2036).



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Respond to the "Hot Spot" emergency with infrastructure resilience and source protection.

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- Uqwteg"Fkxgtukhkecvkqp
- P gvy qtmlkpvgteqppgevkqpu

DRIVER 02

REGULATORY ADAPTATION

Anticipate the evolution of ARERA and environmental rules to become a benchmark sector.

- Proactive Management (e.g. PFAS)
- Wastewater Directive
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DRIVER 03

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Ensure coverage of the €565 million investment plan, while maintaining the economic balance.

- Investment Target
- Rtqhkvcdkkv{"Vcti gv"
- Secure additional funding

Climate-Smart Actions on the Ground for Adaptation

Water 4.0 & Active Leak Management

Advanced network districtization using IoT acoustic sensors and predictive digital twins to halt water losses before they occur.

Water Safety Plans (WSP)

Implementing dynamic, climate-resilient risk mapping from environmental abstraction points straight to the consumer's tap.

Energy Efficiency & Asset Optimization

Complete revamping of wastewater treatment infrastructure to aggressively shrink our carbon footprint and maximize energy recovery.

Technological Innovation

Deploying cutting-edge mass-spectrometry testing and advanced carbon filtration to proactively eliminate emerging threats like PFAS.

Climate adaptation is not a one-time project, it is the new operating standard.

1. Water utilities must transition from fixed, historical modeling to dynamic, **flexible systems** engineered **for extreme weather duality**.

2. True climate adaptation requires a focus on **infrastructure funding**.

3. **European policy and funding** must evolve from rigid compliance checks to flexible, streamlined **enablers of localized innovation**.

ACQUA NOVARA. VCO S.p.A.

Thank you for your attention



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