

## Integrated Solutions for Water challenges

Engineering, consulting, data  
management and Information  
Systems

Antea Group

Understanding today.  
Improving tomorrow.

Water represents various and complex challenges around the world - sustainable resource management, access to drinking water and sanitation services, climate change adaptation, biodiversity conservation, energy transition, circular economy, sustainable and smart cities, etc. Thanks to the numerous fields of competences covered by our experts - hydrologists, hydrogeologists, biologists, civil

engineers, urban planners, soil experts, environmental technologists, IT specialists and environmental legal advisors - we understand the global and local water challenges and develop solutions that contribute to the protection of the water resource, its efficient use and sustainable development.

## Integrated Water Resources Management (IWRM)

### Diagnosis of resource and use

- Measurements and assessment of ground water, surface water and human activities
- Assessment of climate change impact
- Modelling of hydrosystems and of strategies of resource allocation

### Environmental data management

- Measurements & monitoring of watershed data (polluted sites, hydrobiology, water environments)
- Information Systems & big data management solutions
- Geographic Information Systems (GIS)
- Software & IT tools for decision-making

### Institutional support & strengthening

- Trend scenario, strategic action plan
- Water governance / support to water basin agencies
- Capacity building
- Stakeholder consultations

## Expertise for the most elaborate water-related projects

Antea Group provides engineering and consulting services at each stage of your projects, whatever their scope or size :

- Assistance for environmental policy & governance, master plans at municipal, regional, national and international levels
- Feasibility studies, diagnosis, audits
- Front end engineering design, detailed design
- Project management for design and realization
- Support to contracting authority, work supervision
- Assistance for commissioning, operation & maintenance
- Turnkey solutions
- Environmental data management
- Development of IT tools, applications and softwares
- Environmental & social impact assessments
- Risk assessments & mitigation plans

### Industrial water cycle

#### Water stewardship

- Water policy & strategy definition
- Assessments of water risk, use, impact and water footprinting
- Water source and watershed protection
- Water security engagement

#### Water supply

- Identifying and securing water sources
- Process water: treatment, saving, reuse
- Beverage industries, e.g. mineral water and beer production
- Source Vulnerability Assessment

#### Industrial effluents

- Site audit, characterization of effluents & sludge
- Diagnosis of industrial wastewater treatment plant
- Cost / benefit analysis for the treatment process
- Assistance during the procurement process for contractors and supervision of the construction & rehabilitation phases

### Urban water & sanitation

#### Public service performance

- Water and wastewater network asset management
- Management of public service concession contracts
- Capacity building

#### Drinking water supply (treatment plant & network)

- Diagnosis, master plans, project management, work supervision

#### Storm water & sanitation (networks, wastewater treatment plants)

- Diagnosis of wastewater collective and non-collective networks, master plans, project management, work supervision
- Self-monitoring and real-time monitoring
- Water reuse, methanisation, etc.

#### Energy efficiency

- Energy audit and consumption reduction
- Geothermal energy, wastewater heat recovery, cogeneration, energy generation from biomass, etc.

### Ports, coastal areas, rivers & flood risk

#### Ports, coastal areas

- Design & supervision of port, harbour and coastal structures
- Hydraulic infrastructure : dams & dikes
- Erosion & sediment management
- Hydro morphological modelling and simulations of fluvial and marine environments
- Coastal & marine spatial planning

#### Rivers & flood risk

- Flood forecasting, early warning systems, risk mapping & development of decision support systems
- Wetland management
- Climate change, vulnerability, multi-hazard risk assessment and management plans
- Numerical & Computational Fluid Dynamic modelling
- River basin management and restoration

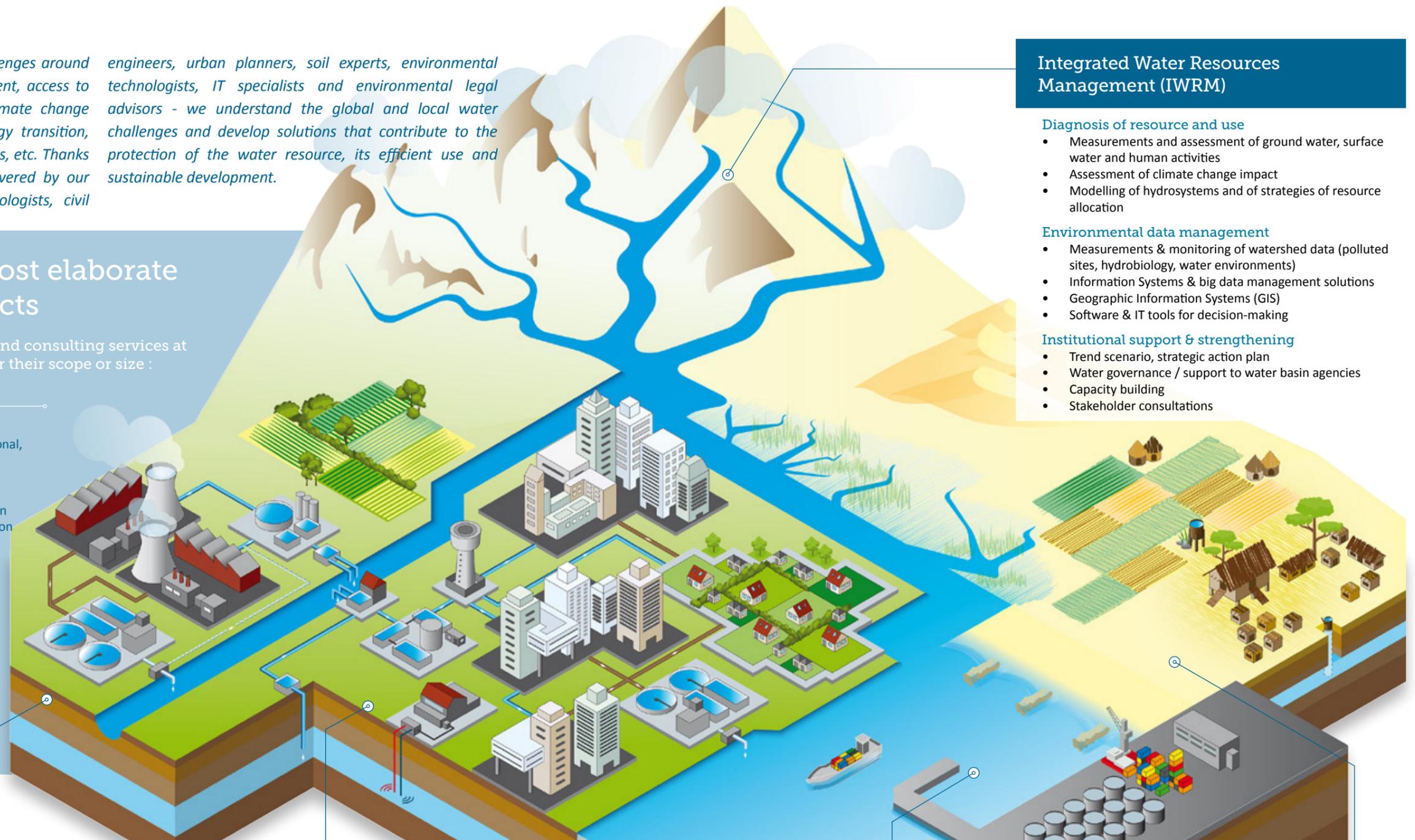
### Rural / semi-urban water & sanitation

#### Drinking water supply & Sanitation

- Geological and hydrogeological studies
- Elaboration of borehole drilling plans and water supply systems
- Supervision of works, support to contracting authority

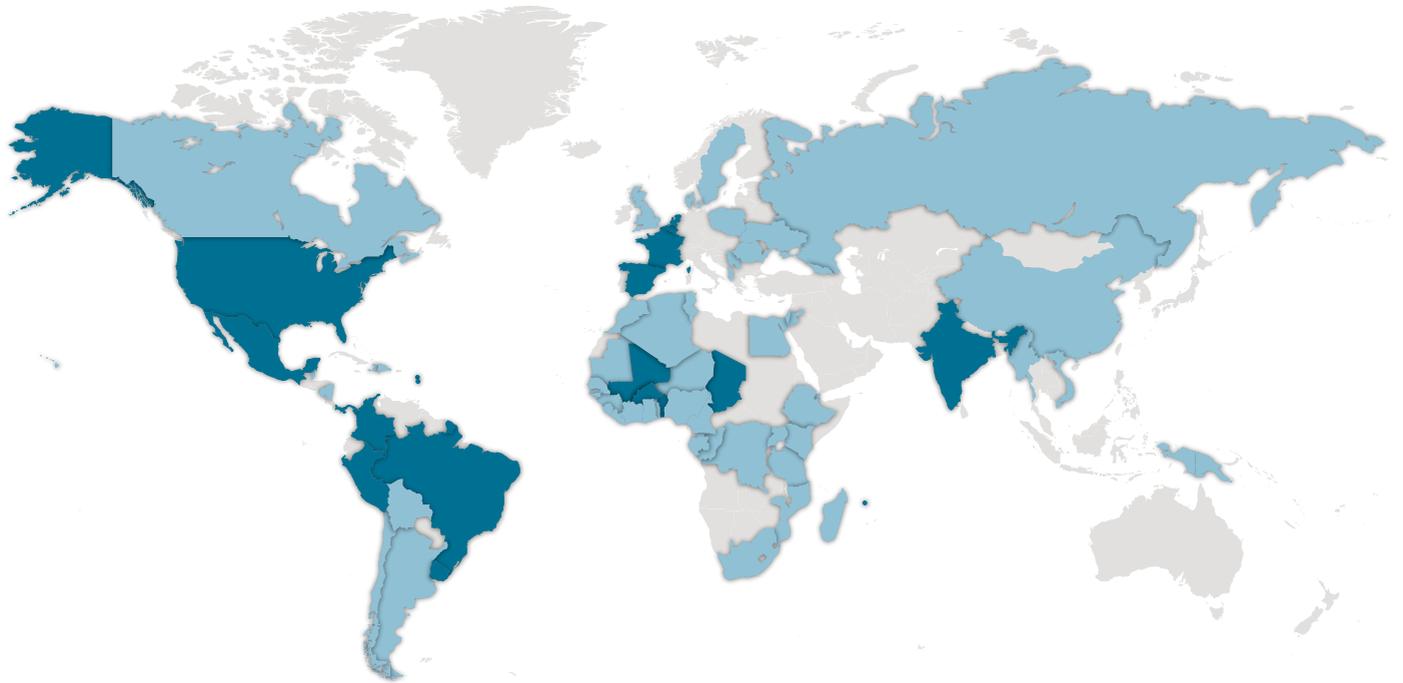
#### Institutional support & facilities management support

- Training and support to local authorities in setting up programs for facilities management and maintenance
- Set-up and training of local O&M structures (e.g. water user associations, small-scale private operators)
- Development of GIS and national databases related to drinking water production and distribution facilities
- Organization and oversight of awareness raising campaigns with the communities, incl. health- and hygiene-related topics



# Global integrated engineering and consulting player

■ Antea Group subsidiaries    ■ Recent projects realized by Antea Group



For decades Antea Group has developed a strong international presence and has carried out numerous donor funded and private projects. Contact us to learn more about our references around the world.

## ABOUT ANTEA GROUP

As an international engineering and environmental consulting firm, Antea Group specializes in full-service solutions in the fields of water, environment, infrastructure, and urban planning. We combine strategic thinking and multidisciplinary perspectives with technical expertise and pragmatic action to effectively solve client challenges while delivering sustainable results for a better future.

With more than 3,100 employees in over 80 offices around the world, we have established trustworthy relationships with a wide range of customers : private companies, international industries, as well as IFIs, municipalities, local and national public authorities.



## More information

Learn more about our services for **environment, infrastructure and urban planning** :  
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