IDRO WATER

# RESEARCH AND ENHANCEMENT

## of water resources

IDRORICERCHE.COM

# RESEARCH, DESIGN AND INNOVATION.

**For over 20 years, the passion for Water drives us to research and create customized and turnkey solutions for the efficient and ecological use of this precious resource in the Food & Beverage industry.**

Our aim is to **enhance the importance of Water along with exploiting technologies**, to provide first class services, with the support of a team of specialized and ever-growing professionals.

Within this perspective of growth and development we offer **an innovative and complete range of products for the sectors of mineral and drinking waters**:

- **Research and analysis of the water resource**
- **Modelling of the hydrogeological basin of interest**
- **Bureaucratic consultancy, realization of water intake works, elimination of pollutants**
- **Data monitoring and plant maintenance**

Our implants are **supplied turnkey, made with high quality materials and techniques and can be combined with specific after-sales assistance plans**.

**The values and the experience harboured in Idroricerche meet the world of mineral and drinking waters creating a union of perfection and uniqueness**

## PASSION
for our most precious natural resource

## RESEARCH AND INNOVATION
for a future where water is the protagonist

## QUALITY
in each step of production, from design to implementation

## COMMITMENT
to the customer, for tailored and lasting solutions

## TEAM
because the best ideas are born and realized out of team work

## GREEN MIND
against pollution and water wastage

# WATER

## RESEARCH AND ANALYSIS OF THE WATER RESOURCE

- **Non-invasive geophysical investigations of the subsoil. Identification of the water and analysis of the mineralogical composition of the soil.**
  **Two types of investigations are used**: electromagnetic (VLF method) and geoelectric (measurement of electrical resistivity).
- **Chemical and microbiological investigations**: determination of the chemical-physical and microbiological characteristics of the resource.
  This is achieved by examining the stable isotopes deuterium (2H) and oxygen-18, useful for assessment of the average altitude of the river catchment areas and for the distinction of the individual components of underground water.

## MODELING OF THE HYDROGEOLOGICAL BASIN OF INTEREST

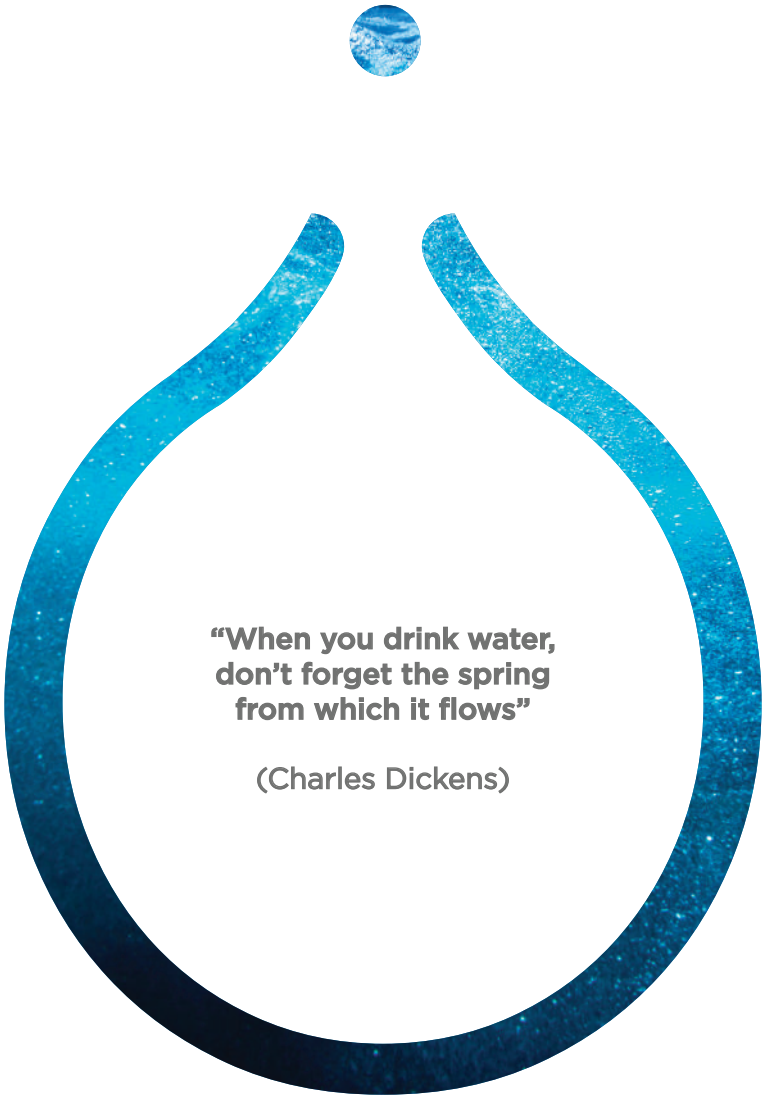
- **Definition and characterisation of aquifers** and related underground water circuits.
- **Determination of the potential of underground water reserves** and relations with the various components of the water balance.
  The available resources are estimated through the isotopic analysis and the average flow rate of the base runoff.
- **Determination of the hydraulic conductivity of the aquifers**: fundamental for the analysis of the usage scenarios of the project resource and any interference with the already existing intake works.

## BUREAUCRATIC CONSULTING, WATER INTAKE WORKS, ELIMINATION OF POLLUTANTS

- **Consultancy**: feasibility studies and bureaucratic procedures.
- **Springs**: sub-horizontal drilling.
- **Wells**: vertical drilling.
- **Installation of settling and loading tanks**, complete with weir channels.
- Plant engineering for **monitoring and regulating the flow rate** of the collected resource.
- **Water intake works**: buildings, excavations, piping, accessories.
- Plant engineering for **removal of chemical and bacteriological polluting agents**.

## DATA MONITORING AND PLANT MAINTENANCE

- **DA.TI.**: system for acquiring, storing, processing and sending information and databases related to the inlet water characteristics and to the flows of the spring bodies.
- **Control and maintenance** of areas sorrounding the springs.
- **Sanitization** of wells and springs technical rooms.
- **Cleaning of the adduction pipes** by means of exclusive technologies designed by Idroricerche.



**“When you drink water, don’t forget the spring from which it flows”**

(Charles Dickens)

IDRO RICERCHE

ADVANCED WATER TECHNOLOGY

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