Strategic Report 2024

Value of Water

5th Edition

The European House Ambrosetti

COMMUNITY VALORE ACQUA PER L'ITALIA

Main partner







Partner











Junior partner

















Scientific partner


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Value of Water

5th edition

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Preface

Valerio De Molli ↓

Managing Partner
and CEO, The European
House — Ambrosetti

We are at a turning point for the Planet. During the negotiations at COP28, which was held from November 30th to December 13th, 2023, in Dubai, United Arab Emirates, concrete global targets were set for the first time to be achieved by 2030 to keep global temperature rise around +1.5°C.

This is no coincidence: 2023 set a double negative global historical record. July 3rd, 2023 marked the historic global temperature record, with an average of 17.01 °C, which lasted only one day as a few hours later, July 4th, 2023, in turn surpassed all previous measurements, touching a global average temperature of 17.18 °C. The first week of July 2023 was thus the warmest recorded on Earth to date. According to the latest available Copernicus measurements, the global average temperature for 2023 can be said to have been the highest ever recorded, at +1.48 °C above the 1850-1900 pre-industrial average.

Climate change is knocking ever harder on the door, and among the resources of planet Earth, water is one of the most scarce and precious. In fact, the World Risk Report recognizes water crises in the category of major global risks characterized by high probability and high impact on the world's population.

In this sense, an efficient and sustainable water supply chain is pivotal for the future of each territory. Therefore, it is essential to have a systemic vision and strategy, capable of integrating the best contributions of all actors in the supply chain, civil society and institutions.

Starting from these reflections, as the 1st Think Tank in Italy, 4th in the European Union and among the most respected independent think tanks in the world out of 11,175 surveyed according to the University of Pennsylvania, The European House - Ambrosetti has decided to launch in 2019 the Value of Water Community, a multi-stakeholder platform dedicated to the management of the water resource as a driver of competitiveness and sustainable industrial development, with the aim of submitting proposals to the Government and the system-Country.

Water management in Italy unfortunately still has many “shadows”. The Community Observatory highlights that Italy is one of the most water-intensive countries in Europe, with 156.5 m^3 of water withdrawn per inhabitant per year (3rd country in the European Union, after Greece and Ireland). Added to this, there is an outdated and inefficient infrastructure network at all stages of the supply chain: 60% of the water distribution network is more than 30 years old and 25% more than 50 years old. This is

This is how you have to be! One has to be like water. Nothing exists in the world more adaptable than water. And yet when it falls to the ground, persisting, nothing can be stronger than it
— Laozi

due to a limited level of investment. Despite the improving trend, Italy remains at the bottom of the European ranking for investments in the water sector, with a five-year average of 59 Euros per inhabitant per year, well below the European average of 82 Euros. Differences in investment rates are also linked to different tariff levels. To date, Italy's water tariff of 2.08 Euros/m^3 is half that of France and 40% that of Germany.
However, proper water management has not only an industrial value, but also passes through the habits of citizens and the value they place on the resource. The survey update carried out by the Community between November and December 2023 shows that nearly 9 out of 10 Italians overestimate their spending on water bills. Moreover, only 10% of citizens are aware that the water rate is less than 1 cent/liter.
However, there is also good news. Italy can count on excellent water quality (85% of drinking water comes from underground sources, which require fewer treatment processes), a good level of technological expertise and a cutting-edge environmental research ecosystem (3rd in Europe for water-related citations and patent applications for environmental technologies), sustainable agricultural production models that promote the circular use of water, and a solid industrial base.
In this sense, in order to qualify the relevance of the water supply chain, The European House - Ambrosetti consultants have reconstructed the extended value chain of water in Italy, creating a database with multi-year economic data of all companies operating in the supply chain, for a total of almost 72 million observations and more than 1.8 million company balance sheets analyzed. The water supply chain activates a long and articulated value chain, involving 26 two-digits ATECO codes and 74 three-digits sub-codes, and including the agricultural sector, "water" manufacturing industries, energy sector, integrated water cycle, technology and software providers, and machinery and plant suppliers. Overall, water is the enabler for 367.5 billion Euros of Value Added: 19% of Italy's GDP could not be generated without water.
Enhancing the value of the water resource must therefore be one of the main levers for the sustainable revitalization of the country. Building on this awareness, the Community has estimated the impact of efficient and responsible water management on the 17 Sustainable Development Goals of the United Nations 2030 Agenda: water has impacts on 10 out of 17 of the Sustainable Development Goals and on 53 out of 169 of the respective targets. There is a need to accelerate the transition to responsible and conscious water management models. Italy ranks 19th out of 27 European countries and the United Kingdom considered in the "Water Value Towards Sustainable Development" index calculated by the Community, gaining two positions compared to last year, but still far from the outpost positions.
Evidence from the 2024 Strategic Report shows, once again, that action of a systemic nature needs to be urgently defined at the national level. The fifth edition of the Community has renewed the "Agenda for Italy," with a decalogue of proposals for action to foster the development of the water supply chain and encourage efficient and sustainable management of the resource, which you will find listed in detail in this Report.
The Strategic Report "Water Value for Italy" would not have been possible without the strong will of the leadership of the partner companies: A2A, Acea, Acquedotto Pugliese, Hera, Iren, MM, SMAT, ANBI, Compagnia Valdostana Acque, Deutsche Bank, Engineering, Europrogetti, Fisia Italimpianti, IWS - Integrated Watercare Solu-

tions, Impresa Pizzarotti & C. S.p.A., Schneider Electric, Suez, Xylem, Acqua Novara, Acque Bresciane, Alfa, Barchemicals, Brianzacque, Como Acqua, Irritec, Livenza Tagliamento Acque, Maddalena, Metersit, Padania Acque, Piave Servizi, RDR, RINA, Sorical, SOTECO and Sparkasse. To all of them go my heartfelt thanks.
Thanks also to Utilitalia and Fondazione Utilitatis, with whom The European House - Ambrosetti has defined, for the second consecutive year, an agreement for a scientific partnership for the drafting of the Strategic Report and the Blue Book 2024.
A heartfelt thank you also to the Commissioner Nicola Dell'Acqua and all the experts involved in the working process.
Before leaving you to read the Strategic Report, a heartfelt thank you to the The European House - Ambrosetti team made up of Benedetta Brioschi, Nicolò Serpella, Mirko Depinto, Alessandra Bracchi, Alberto Maria Gilardi, Virginia Lanfredi, Giulia Tomaselli, Fabiola Gnocchi, Erika Panuccio, Sabina Frauzel, Simonetta Rotolo, Laura Basagni, Clara Pavesi, Alice Vertemati, Annalisa Pinto, Giulia Panetta and Walter Adorni.

Presentation of the partners of the 2023/2024 5th edition of the Value of Water Community

A2A
ACEA S.P.A.
Acquedotto Pugliese S.P.A.
HERA S.P.A.
IREN S.P.A.
MM S.P.A.
SMAT S.P.A
ANBI
Gruppo CVA
Deutsche Bank
Engineering
Europrogetti
Fisia Italimpianti
IWS
Impresa Pizzarotti & C. S.p.A
Schneider Electric
Suez
Xylem
Alfa
Acque Bresciane Società Benefit
Acqua Novara VCO
Barchemicals
Brianzacque
Como Acqua
Irritec
Livenza Tagliamento Acque
Maddalena
Metersit
Padania Acque
Piave Servizi
RDR
RINA
Sorical
Soteco
Sparkasse

Partner scientifici dell'iniziativa
UTILITALIA
Fondazione Utilitatis

A2A CICLO IDRICO S.P.A.

In Italy for more than 80 years

Headquarter
→ Brescia, Lombardy

— a2a.eu
— a2acicloidrico.eu

A2A Ciclo Idrico is a member firm of the A2A Group. A2A is a Life Company active in the environment, water and energy areas — the conditions necessary to life. A2A provides essential services towards long-term sustainability thanks to its outstanding expertise and cutting-edge technologies. Listed on the Italian stock exchange and with approximately 13,000 employees, the Group manages energy generation, sales and distribution, district heating, waste collection and recycling, electric mobility and smart urban services, public lighting and Integrated Urban Water Management.

Sustainability is central to A2A's industrial strategy, and it was one of the first companies to have designed a policy inspired by the 17 goals of the UN 2030 Agenda. To promote Italy's sustainable growth and make energy transition and the circular economy concrete realities, its 10-year industrial plan includes €18 billion in investment for projects in-line with the UN Agenda.

For the A2A Group, caring for people in the company and the local area, listening and transparency, and the development of diligent corporate governance mean the creation of long-term sustainable value for the company and the communities it serves.

A2A Ciclo Idrico was created on October 1, 2010, with operational launching on January 1, 2011, and it was built on the activity of the utilities services agency Azienda Servizi Municipalizzati di Brescia which began its water services back in 1933 as the manager of the aqueduct for the Municipality of Brescia.

Currently, A2A Ciclo Idrico distributes drinking water within the city of Brescia and numerous municipalities in the province. As of December 31, 2023, the water grid under its management covered 3,613 km. The water comes from 174 wells and 185 sources and springs and the amount of water delivered totals around 45 million m^3 a year.

A2A Ciclo Idrico also manages the sewer system of Brescia and the municipalities it serves in the province, a network consisting of 2,340 km of blackwater and combined sewage pipes and 276 lift stations.

For wastewater treatment, the largest treatment plant is located in Verziano (Brescia). It is connected to the sewer system of the city and a number of neighboring towns and its treatment capacity is 296,000 equivalent inhabitants. In addition to the Verziano plant, A2A Ciclo Idrico manages 51 other plants, some of which serve multiple towns.

In perfect harmony with its mission: "A2A Ciclo Idrico manages services connected with Integrated Urban Water Management, operating with constant attention to the needs of the community and full satisfaction of all the entities it deals with." It is cognizant of the technological evolution and innovation of activities to be able to always respond better to the concept of circular economy (from the drawing of water from the environment to the return of the resource to the same environment following purification).

As of December 31, 2023, A2A Ciclo Idrico revenues were approx. €110 million with over 42 million m^3 billed to customers (around 45% of the total billing volume in the entire province of Brescia). During the same year it invested approximately €78 million in water service infrastructure for a unit value of about €132 per served inhabitant.

a2a LIFE COMPANY

ACEA S.P.A.

In Italy for more than 110 years

Headquarter
→ Rome, Lazio

— gruppo.acea.it

ACEA is a leading Italian multi-utility company. Listed on the stock exchange in 1999, it is involved in the management and development of networks and services in the water, energy and environment sectors. Its activities include: integrated urban water management, electric power distribution, public and artistic lighting, sale of electricity and gas, energy production (primarily from renewable sources), waste treatment and reclamation. ACEA is the leading national operator in the water sector, serving approximately 10 million inhabitants in the Italian Regions of Lazio, Tuscany, Umbria, Molise and Campania. ACEA is also a main Italian player in electric power distribution (supplying approximately 9 TWh to the city of Rome) and energy sales (selling approximately 8 TWh of electricity). It is one of Italy's biggest operators in the environmental sector, annually handling around 1.5 million metric tons of waste.

ACQUEDOTTO PUGLIESE S.P.A.

Commitment to sustainability

Headquarter
→ Bari, Apulia

— www.aqp.it

In terms of size and complexity, Acquedotto Pugliese S.p.A. is one of Europe's leading players in Integrated Urban Water Management: 32,000 km of water grid serving 260 municipalities across Apulia and Campania with over 4 million inhabitants, 5 purification plants (located in the Apulia, Basilicata and Campania regions), 10 analysis laboratories, 185 water treatment plants and 9 water reclamation plants.
A large state-owned company, fully controlled by the Apulia Region, it has over 2,250 employees, a production value of €741.1 million and a gross profit of €24.1 million. It is engaged in a huge plan to strengthen and modernize its structures, with investments that amounted to €321.8 million in 2022, an increase of 8% over the previous year, making AQP one of the most virtuous public utility companies.
Over the last three years, direct and indirect benefits have been achieved for the community amounting to approximately €9 billion thanks to improvements in the qualitative-quantitative state of water resources, the efficiency of sewage systems and the upgrading of water treatment plants for the Apulian territory, historically focused on agriculture and tourism.
Acquedotto Pugliese is committed to designing and implementing the most modern forms of innovation, respecting the environment and sustainable development, such as the Smart Water Management System, which, through the use of advanced digital technologies, makes it possible to streamline management, ensure water leak recovery and monitor the quality of distributed water in real time with the aid of models that support operational processes.
In order to optimize the availability of drinking water and agricultural water, as well as improve urban wastewater treatment processes, AQP manages 5 water reclamation plants (Acquaviva, Corsano, Gallipoli, Ostuni and Castellana Grotte), which in 2022 were able to recover precious resources destined for irrigation. Another 9 water treatment plants have already been upgraded and configured to achieve water reuse targets. In the meantime, wastewater reclamation procedures have been started at a further 37 plants as part of the infrastructure improvement interventions.
In recent years, AQP has increased its commitment to reducing energy consumption and has launched various interventions aimed at reducing its energy dependence in line with the sustainability goals set by the UN Global Compact which AQP joined in 2021.
Acquedotto Pugliese's Board of Directors approved the company's Sustainability Plan for the three-year period 2022-2024, to launch a new model of growth that contributes to creating value for the territories in which it operates. The corporate actions set out in the Plan are divided into three closely related macro areas: Environment, Quality and People. Some of the most significant objectives are those aimed at guaranteeing an increase in electricity production, sustainably managing resources, reducing the company's environmental footprint, creating circular processes through new innovative waste management systems, raising customer service quality, also through technological innovation, and improving the way in which works are integrated into the landscape.
AQP is also involved in the production of biogas from anaerobic digestion. In 2022, over 496,000 m^3 of gas were produced at the Lecce wastewater treatment plant and

over 566,000 kW of electricity were produced by the cogenerator and over 14,000 kW by photovoltaic panels. In 2023 the Grottaglie Monteiasi water treatment plant in the province of Taranto was also included.
The 2022 financial statements show a drop in electricity consumption of 1.7% compared to 2020.
At present there are 9 hydroelectric power plants, 6 photovoltaic plants and 1 sewage sludge biogas cogeneration plant in operation. These investments have made it possible to generate 11.7 GWh of electricity from renewable sources, instead of the 10.2 GWh envisaged in the plan. Acquedotto Pugliese is the majority shareholder of the subsidiary Aseco S.p.A., a public company which is a leader in the production of quality fertilizers.
When it comes to people, worthy of note is the company's goal to incentivize both welfare and wellbeing policies to improve people's quality of life, health and well-being, as well as sustainable mobility aimed at reducing the environmental, social and economic impacts generated by privately-owned vehicles.
The outstanding professional experience acquired by Acquedotto Pugliese in over one hundred years led to APQ founding the Water Academy, a center of excellence in culture and training on Integrated Urban Water Management. The Academy creates network opportunities by managing and promoting shared projects at a territorial, national and international level. In 2022 the Academy provided training courses in various areas, the most significant of which were the projects falling within the typical scopes of Sustainability, such as the AWORLD app, the Masters and in-depth courses on sustainability, the Target Gender Equality program and the Masters in Circular Economy. In this regard, in 2023, Acquedotto Pugliese obtained gender equality certification (one of the first utility companies in Southern Italy to do so) for its commitment to achieving equal pay, equality in personnel recruitment and organizational processes, equal opportunities for career growth, prevention of all forms of physical, verbal and digital abuse in the workplace, work-life balance and the protection of parenthood and care work.
Acquedotto Pugliese's activities are also aimed at encouraging the development of public initiatives in Integrated Urban Water Management in countries of the Mediterranean basin and Balkan area. More recently, during 2022, this activity has been extended to also include countries in the Middle East and United Arab Emirates. Numerous international collaboration initiatives are underway, such as the Cross Water project in which the Apulia Region (as lead partner) and Acquedotto Pugliese are a part, along with the Molise Region, the Municipality of Tirana, the Tirana Water and Wastewater Utility Company (UKT) and Acquedotto Regionale Montenegrino (PE RWMC). The aim of the cross-border Cross Water project, worth €5.5 million, is to encourage the joint development of new infrastructure and technologies, as well as new control and metering systems.
Also worthy of note is the company's participation in Interreg Greece, and Interreg IPA with Albania and Montenegro for the purpose of sharing and actively contributing to the diffusion of best practices in the use of reclaimed wastewater and in engineering water grids and control systems.
In 2022, Acquedotto Pugliese launched TVA, the first thematic web TV dedicated to the world of water—a new and innovative communication project that aims to boost the availability of information on the topics of sustainability, environment and innovation. In 2023, TVA's program schedule was also enhanced by TG LIS, a renewed edition of the news in Italian sign language, with the aim of promoting total participation of all citizens in the information provided by Acquedotto Pugliese.

acquedotto pugliese
l'acqua, bene comune

HERA S.P.A.

Excellence, innovation and safety for a service oriented to the needs of communities and territories

Headquarter
→ Bologna, Emilia-Romagna

— gruppohera.it

The Hera Group is one of Italy's largest multi-utility companies and operates in the environment, energy and water sectors. It has over 10,000 employees who every day are committed to meeting the numerous needs of approximately 5 million citizens, mainly living in the Italian Regions of Emilia-Romagna, Veneto, Friuli-Venezia Giulia, the Marches, Tuscany and Abruzzo. Listed on the stock exchange since 2003, it is one of Italy's top 40 companies by capitalization (in the FTSE MIB index since 2019), and since 2020 it has been included in the Dow Jones World and Europe Sustainability Indices.
With 54,000 km of networks and almost 900 production plants, water purification plants and water treatment plants, the Hera Group is Italy's second largest Integrated Urban Water Manager.
Every year the Group builds works within the water cycle amounting to over €200 million (annual average for the last 4 years), which also include cutting-edge digital technological solutions allowing management based on a data-driven company model.
Thanks to an approach that integrates network districtualization, pressure management and significant investment in the rehabilitation of the water distribution network, the Group can boast a water loss percentage that is one of the lowest in the country.
Safety is an essential element for this multi-utility company: in the territories it manages, the quality of drinking water supplied, and the water returned to the environment is guaranteed by over 1,000,000 analyses a year.
In the sewerage sector, Hera is one of the implementers of the Rimini Optimised Seawater Protection Plan, the largest sewer rehabilitation plan ever carried out in Italy, which will drastically reduce the number and effects of marine outfalls into the city's sea, thus avoiding swimming bans, and guarantee water safety.
By recovering rainwater and reusing treated water, the Group aims to reduce water consumption at its offices and plants by 25% by 2030. In particular, as part of the project known as Value Ce-In (an Italian acronym for Wastewater and Slurry Reclamation as Part of a Circular Economy and Industrial Symbiosis) underway at the Cesena water treatment plant, an innovative system for the direct reuse of treated water for irrigation purposes has been implemented, a precursor of further agreements for the reuse of wastewater in agriculture which today sees 11% of the total volume of treated water being reused, with the aim of reaching 18% by 2030.
In terms of circular economy, Hera was the first company in Italy—also thanks to the expertise of its subsidiary Aliplast — to experiment with the use of recycled plastics in the construction of sewer pipes and in electricity networks.
Finally, on the energy innovation front, the Group's biggest water treatment plant will be built in Bologna, an investment of approximately €10 million financed through the NRRP. This power-to-gas technology plant, called SynBioS (Syngas Biological Storage), one of the first to be built internationally, is capable of converting renewable electricity and wastewater into green hydrogen and then into biomethane, thus promoting complete synergy between energy decarbonization and water purification.

IREN S.P.A.

The multiutility that shapes tomorrow, today

Headquarter
→ Reggio Emilia, Emilia-Romagna

— gruppoiren.it

Iren is the leading multi-utility company in North-West Italy for electricity, gas, district heating, energy efficiency, integrated urban water management service, integrated waste cycle and technology services.
Thanks to its high technological know-how, long-term perspective and significant investment potential, Iren is the partner of reference for communities and public administrations in projects involving the development and promotion of local areas through sustainable growth plans.
The Group offers a range of services: generation of electrical energy (already 80% from high-yield renewable sources) and thermal energy for district heating (a sector in which Iren is the national leader), implementation of high-tech solutions for energy efficiency and smart cities to support the public administration, integrated waste cycle management (in which it boasts percentages of sorted waste as high as 80%), development of circular economy solutions with over 70 waste treatment plants, management and upgrading of the integrated water cycle and high-efficiency electrical energy and gas distribution grids, upgrading of a service and sales network for its 2.5 million customers through in-person help desks, call centers and apps.
In particular, in the integrated water cycle, the companies in the Iren group manage a total of over 20.000 km of water mains, 11,000 km of sewer networks and over 1,300 water treatment plants, with an average water loss percentage of 31.2%, serving over 2.9 million people in 239 municipalities across Liguria, Piedmont and Emilia, delivering an annual total of 170 million cubic meters of water. Over 64% of the network is divided into districts, allowing for effective and efficient management of pressures and leak detection activities.
With the goal of reinforcing its activities and responding with increasing efficiency to the challenges of sustainable development in local areas, the Group approved a 10-year strategic plan — the most ambitious in the multi-utility company's history — whose March 2023 update indicated €10.5 billion in investment to 2030, over 80% of which earmarked for sustainable investments. Significant focus is placed on the water sector, with the aim of achieving a significant improvement in the quality of the service (primarily the reduction of water losses), dealing with EU wastewater regulation violations, developing projects involving the reuse of treated wastewater and counteracting hydrogeological instability.
It is a goal based on three strategic pillars: ecological transition through progressive decarbonization of all activities and strengthening of leadership in the circular economy and sustainable use of resources, in line with the UN 2030 Agenda; focus on local areas by broadening the services offered and through the increased presence with the community and public administrations to identify new requirements, satisfy needs and find innovative solutions; and service quality through continuous improvement of performance and maximizing the satisfaction levels of customers/residents. A program that will be implemented thanks to its substantial patrimony of best practices and expertise, as well as the entry into the Group of 3,200 new employees over the course of the plan.

MM S.P.A.

Your city, our commitment

Headquarter
→ Milan, Lombardy

— mmspa.eu

MM S.p.A. was founded as an engineering company in 1955 to design and build the entire subway network for the city of Milan. Today MM is an integrated multi-service company, a center of excellence in the engineering sector with substantiated experience and is a strategic partner in the development, management and reorganization of cities, services, networks, infrastructure and public real estate assets in the context of urban renewal.

In 2003 the Municipality of Milan assigned Integrated Urban Water Management to MM, exploiting its technical and managerial experience to improve the level of water-related services and promote an adequate maintenance and investment plan for the water grid and wastewater network.

Since the end of 2014, MM has been managing the public residential assets owned by the Municipality of Milan, taking care of administrative, accounting and technical-legal activities, relations with tenants, routine and unscheduled maintenance and the safeguarding of assets. Since 2023, MM has also been active in this sector for the Municipality of Bergamo.

Since 2020, MM has further developed its supervision of field operations and currently manages facility management and maintenance activities for school building assets, underpass rainwater lift systems, and the sports facilities owned by the Municipality of Milan and managed by Milanosport.

In 2018 MM inaugurated the renovated Milan Water Treatment Plant, a fine example of industrial architecture returned to public use and dedicated entirely to the theme of water and sustainability. It offers free educational workshops to thousands of students, a historical and interactive museum tour and a cultural program featuring dozens of live meetings with international personalities from the world of science and society.

Every year MM shares its company heritage of technological innovation and know-how acquired over almost seventy years of activity by participating, with its employees acting as teachers, in training courses and technical visits to its plants and worksites, often in collaboration with professional organizations.

In the 2022 financial year MM generated revenues of €298 million (€267 million in 2021). Over the year, the Company recorded a gross operating margin of €53 million (similar to 2021). Net worth stands at around €246 million.

As regards MM's rating, during 2023 Moody's confirmed its Baa3 rating, confirming the company's positioning in the Investment Grade area.

In order to maintain one of the lowest water rates in Italy and Europe, MM is making, year after year, a significant amount of investment linked to the City of Milan Urban Water Management Interventions Program, investing €58 million in 2021 and €52 million in 2022.

SOCIETÀ METROPOLITANA ACQUE TORINO – SMAT S.P.A.

In Italy for 23 years

Headquarter
→ Turin, Piedmont

— smatorino.it

SMAT was incorporated in April 2001 and, today it is a national leader in Integrated Urban Water Management. The company works towards continuous improvement of its service and is always prepared for the possibility of scenario shifts (climate change, emergencies, etc.) through targeted investment into plant and equipment, corporate management, control systems and research.

With a 2022 turnover of over €470 million and profits exceeding €41 million, SMAT is an "in-house" company with 100% public shareholding and over 1,000 employees. It guarantees the provision of Integrated Urban Water Management in 292 municipalities located in the metropolitan area of Turin, covering an area of 6,317 km2 with over 2.19 million inhabitants.

Through its 95 purification facilities and 393 water treatment plants, a water grid of approximately 15,000 km and sewer system covering 10,250 km, SMAT supplies water services to over 400,000 users, guaranteeing the quality of the water supplied with more over 900,000 analysis results a year provided by its own accredited laboratories.

SMAT has developed a specific Industry 4.0 Plan as part of an ambitious Area Investment Plan that envisages investment totaling around €1.2 billion by 2033.

A significant portion of the company's facilities and resources are dedicated to research and innovation and, through its Research Center, it takes part in prestigious national and international projects. Inaugurated in 2008, the mission of this center is the application of the advances made through its research and experimentation, to contribute to the innovation and industrial development in the water sector. The SMAT Research Center is a pole of excellence that is one of the most important in Italy in the field of applied research and control of drinking water and sewage. It is equipped with advanced technologies and it is capable of developing concepts, research, projects, pilot plants and innovative products and patents.

In 2023, the SMAT Research Center took part in thirteen projects with academic partners, four projects financed by Horizon Europe, the EU's funding program for research and innovation, one project financed by the EU's LIFE program for the environment and one project financed by the CRT foundation. It also has over thirty applied research projects underway, for most of which partnership agreements were signed with academic institutions, research centers and industrial partners.

Furthermore, SMAT has activated a new assistance channel that uses Artificial Intelligence. "Claudia", the SMAT avatar, is available for users needing assistance in navigating the SMAT website and is able to answer numerous questions, making communications with users more efficient and effective.

ANBI – NATIONAL ASSOCIATION OF CONSORTIA FOR THE MANAGEMENT AND CONSERVATION OF LAND AND IRRIGATION WATER

In Italy for more than 100 years

Headquarter
→ Rome, Lazio

— anbi.it

ANBI – the National Association of Consortia for the Management and Conservation of Land and Irrigation Water, was founded as a mandatory National Association in 1928.
In 1947, under decree issued by the provisional Head of State (Decree no. 1442 of July 10, 1947) the Association received legal recognition as a voluntary Association with legal personality.
The current statute, approved in 2015, defines the institutional functions of the Association, stating that it has the task of promoting full understanding of both the role of reclamation and irrigation in the context of public action for the conservation, protection and enhancement of the territory and waters, and the role of the Consortia as public bodies that are self-governing and with private participation.
Thanks to the State-Regions Agreement of 2008, the sector was reformed and simplified following the principle of achieving greater effectiveness, efficiency and economy.
The Association, organized across the territory through Regional ANBI divisions, carries out actions representing the interests of land reclamation and the Consortia in the various sectors of their institutional and operational activity, ensuring the necessary assistance in the technical, economic and legal sectors, defining the operational guidelines and the objectives to be pursued, examining and studying the legislative provisions concerning the land reclamation consortia.
At present, 141 bodies, comprising land reclamation and irrigation consortia, belong to the Association, covering over 50% of the country's land surface, a total of almost 17 million hectares, in other words all the plains (which in Italy extend over approximately 6 million hectares) and most of the hilly terrain and providing water for 81% of irrigated agriculture.
The Association is a member of the European Union of Water Management Associations (EUWMA) and is a founding member of Irrigants d'Europe, the association that brings together the irrigation associations of Italy, Spain, Portugal and France, all of which are committed to finding shared solutions for directing European policies concerning irrigated agriculture (water, energy, food) in favor of countries bordering onto the Mediterranean.
ANBI collaborates with numerous public and private institutions in activities of common interest through agreements and conventions, including, for example, with the Extraordinary Commissioner for the Reclamation of Abusive Landfills, with Terna S.p.A. and Coldiretti (Italian Farmers' Association) and with Bonifiche Ferraresi S.p.A. and the Consorzio del Canale Emiliano Romagnolo.

ASSOCIAZIONE NAZIONALE CONSORZI GESTIONE E TUTELA DEL TERRITORIO E ACQUE IRRIGUE

GRUPPO CVA

CVA Group. 100% renewable energy

Headquarter
→ Châtillon (AO), Valle d'Aosta

— cvaspa.it

CVA – Compagnia Valdostana delle Acque, headquartered in Châtillon (Aosta), is one of the most important Italian companies operating in the green energy sector. Owned entirely by the Valle d'Aosta Region, the Group qualifies as the only 100% green integrated operator in Italy.

The history of CVA began in 1995 when the Valle d'Aosta Region started the process of acquiring hydroelectric plants situated in its territory which in 2001 led to the birth of the CVA Group.

The production of electricity exclusively from renewable sources, i.e. hydroelectric, wind and photovoltaic plants, qualifies the Group as a key player in energy transition. The Group envisages implementing a strategic investment plan up to 2027 which will result in an 804-MW increase in new photovoltaic and wind plants providing an additional production of 1,440 GWh of renewable energy.

— Hydroelectric: CVA is one of Italy's top players in terms of contribution to renewable hydroelectric energy generation. It owns and runs one of the largest hydroelectric portfolios in the country, including 32 power plants with a total power of 934 MW.
— Wind: 8 wind farms with a total power of 157 MW.
— Photovoltaic: group-owned plants with a total power of 54 MW.

The Group aims to achieve diversification of renewable sources for the production of electricity, both through organic growth and acquisitions. This vision includes CVA's investments aimed at expanding its production capacity to further consolidate its leadership position in the renewable energy scenario, in particular, in photovoltaics. The Group operates vertically throughout the energy supply chain, managing production, distribution and sales through its own companies. Hydroelectric production is managed through group companies CVA and Valdigne Energie, while wind and photovoltaic energy is managed by CVA EOS. Distribution activities are carried out under concession by Deval, while CVA Energie is the Group company that supplies customers in the free market and in the protected categories market (under the Enerbaltea brand) and operates throughout Italy with both retail and business customers.

The rapid growth of the CVA Group has been driven over the years by a predisposition for innovation and well-established technological know-how, two factors that have allowed it to constantly develop market potential. The Group's commitment to the new frontiers of energy is confirmed by the recent establishment of the subsidiary, CVA Smart Energy. This company will develop integrated services in the field of energy efficiency, operating on the market also as an ESCo (Energy Service Company) and will implement the initiatives already launched in the open innovation sector, such as studies aimed at producing green hydrogen and energy community planning.

Agrivoltaics represents a further technological challenge that the Group has decided to pursue through an alliance with BF S.p.A. signed in January 2023. In what can, to all intents and purposes, be considered a national pilot project, CVA will be the exclusive strategic partner for the development of agrivoltaic projects on land belonging to the BF S.p.A. group. This should make it possible to develop a further 150 MW.

DEUTSCHE BANK — ITALY

In Italy for more than 45 years

Headquarter
→ Milano, Lombardy

— db.com
— deutsche-bank.it

The DB Group has been operating in Italy on a permanent basis since 1977 when it opened its first representative office in Milan, which two years later became its first Italian subsidiary. Deutsche Bank S.p.A. is the most representative Legal Entity of the DB Group in Italy.

In 1986 the Group acquired the Banca d'America e d'Italia (BAI) and then in 1994, with the acquisition of the Banca Popolare di Lecco, the BAI was renamed Deutsche Bank S.p.A. The growth of the Franchise continued over the following years with the acquisition, among others, of the network of Financial Advisors, Finanza & Futuro S.p.A., later renamed DB Financial Advisors and sold in 2022 to the Zurich Group.

Today Italy is the leading European market for Deutsche Bank immediately after Germany. The Institute is one of the most important international Groups present in Italy, where it has consolidated activities in all 4 business divisions: Private Bank, Corporate Bank, Investment Bank and Asset Management, with DWS.

In particular, Deutsche Bank Italia has a turnover of over €1 billion and directly serves, through its approximately 350 branches, over 2.2 million clients with a distinctive focus on both private clients—in the Wealth, Private, Affluent and Consumer segments (the latter through the DB Easy brand)—and Corporate and Institutional clients.

In 2013, in the wake of Deutsche Bank Group's numerous years of experience in promoting philanthropic activities, the Deutsche Bank Italia Foundation ("DB Foundation") was born. After the German "Deutsche Bank Stiftung", Italy represents the first nation in Europe to have its own foundation, further demonstrating the importance the country has for the Banking Institute.

For over ten years Deutsche Bank Italia, through the DB Foundation, has been investing in issues concerning the world of sustainability. The foundation is in fact committed to developing charitable initiatives dedicated to its community, and, in more recent years, in line with the new strategic lines of the Group which are based on ESG guidelines, it has focused its efforts and investments on the protection of the oceans and marine ecosystem (the Group is a member of ORAA - Ocean Risk and Resilience Action Alliance), also through a number of partnerships with global organizations such as the WWF.

ENGINEERING

Headquarter
→ Rome, Lazio

— eng.it

Engineering is the leading Digital Transformation Company in digital transformation processes for businesses and Public Administrations.

An Italian Group with headquarters in Rome and a vigorous international presence, Engineering has around 15,000 employees and over 70 offices across Europe, the United States and South America.

For over 40 years it has supported private and public organizations in developing their way of working and doing business, sharing its expert knowledge of corporate processes in all market sectors (from Finance to Healthcare, from Utilities to Manufacturing and much more besides), exploiting the opportunities provided by the most advanced technologies (in particular in Cloud, Cybersecurity, Metaverse, AI & Advanced Analytics applications) and proposing a portfolio based on proprietary solutions, best-of-breed market solutions and managed services.

The Group continues to expand its experience through M&A operations and partnerships with leading players in the field of technology.

Paying constant attention to innovation, through its R&I division which includes over 450 researchers and data scientists, the Group invests in international research and development projects, exploring revolutionary technologies and designing new business solutions. A company rich in human capital, through its “Enrico Della Valle” IT & Management Academy, Engineering provides continuous upskilling and reskilling courses for employees and stakeholders, providing over 32,000 days of training a year.

Engineering has constant attention to the issues of sustainability and social responsibility embedded in its history and identity: it adheres to the United Nations Global Compact and is a “Sustainability Leader” along with the best Italian companies.

With an ambition of supporting Integrated Urban Water Management challenges, Engineering has created the Water Management Solution (WMS), a modular and interoperable solution for managing infrastructures for water collection and distribution and sewerage networks, optimizing efficiency, resilience, reliability and loss reduction. WMS is part of a horizontal Composable Platform, created to support the management of Utility infrastructures in the Water, Power & Gas, Heating and Waste sectors. The platform, based on the needs of the main stakeholders of the ecosystem, integrates Engineering’s Platforms & Solutions with specific market solutions, thanks to a network of partnerships that guarantee the best technological and process skills. Engineering accompanies water operators on their Digital Journey by applying cutting-edge technologies: AI & ADVANCED ANALYTICS, AR / MR / VR (XR), DIGITAL TWIN, INTERNET OF THINGS, to increase the security and sustainability of the country’s key infrastructures.

EUROPROGETTI S.rl.

A company operating in the civil and industrial wastewater treatment sector

Headquarter

→ Padova, Veneto

— europrogetti-italy.com/en_US/

For over 40 years, Europrogetti has been in the vanguard when it comes to designing and developing advanced wastewater treatment technologies. Our mission is to provide innovative solutions for water treatment plants, with the aim of reclaiming up to 98% of the treated water or adopting the concept of Zero Liquid Discharge (ZLD), ensuring the complete reuse of all water treated in the production process.

Every day, thanks to the systems built by our single company in India, we manage to save a quantity of water equal to that used for civil purposes (domestic use) in the whole Lombardy region on a daily basis.

Our experience spans a wide range of industrial sectors, including tanning, textiles, food, chemical, slaughterhouse, paper, beverage and many more. Above all we stand out in the field of textile wastewater treatment, where we can boast a consolidated leadership with over 450 systems installed worldwide. The processing capacity of these plants ranges from 50 to 300,000 m^3 per day, demonstrating our ability to adapt to the different scales and complexities of production needs.

We have outstanding expertise in designing bespoke solutions, because we understand that every project is unique and deserves a customized approach. We collaborate with the best market partners and have an internal team dedicated to research and development, ensuring the use of the most advanced and efficient technologies available in the supply sector. In terms of installation, we often entrust these activities to qualified partners, ensuring they are carried out with the utmost skill and precision. In the field of management, we are experts in plant operation and maintenance, and we are able to provide precise operating cost estimates. Thanks to our SCADA system, we can constantly monitor plant operations, ensuring 24/7 control to maximize efficiency and safety.

Our commitment to innovation is reflected in the fact we have 21 water treatment technologies in our portfolio, 7 of which we personally designed and developed. This testifies to our continuous research and development.

Today, with over four decades of experience, we guarantee cutting-edge solutions that confirm our commitment to innovation and leadership in the sector. Our company has been awarded significant recognitions, including the prestigious “SMAU” INNOVATION AWARD for having created the first “ZLD PLANT” in Europe, and the ENERGY GLOBE AWARD both in 2017 and 2023, thanks to the technical solutions implemented for energy saving. In 2023 we were also the first in the world to build a vertical plant.

EUROPROGETTI
Recovery Water Technology ZLD Expert

FISIA ITALIMPIANTI

Over 95 years of activity in the Water sector

Headquarter
→ Genoa, Liguria

— fisiait.com

Fisia Italimpianti S.p.A is a world leader in the sustainable design and construction of water treatment and desalination plants which currently treat over 6,700,000 m^3/day of water for over 11,000,000 inhabitants worldwide and produce 4,800,000 m^3/day of drinking water through sea water desalination for over 20 million people, particularly in the Middle East.

The company is part of the WeBuild Group, a global leader in construction, the world's number one for water sector infrastructure construction, specialized in creating large-scale works and complex infrastructures for sustainable mobility, hydroelectric energy, water, green buildings and tunneling.

Thanks to its experience acquired in over 95 years of activity, Fisia Italimpianti is one of the most competitive contractors globally in this sector and offers advanced solutions in the following areas: water desalination, water treatment, eco-sustainable treatment of municipal solid waste.

Technological and engineering management, design and planning, procurement, construction, commissioning and maintenance of plant and equipment are just some of the services the company provides.

Thanks to its in-depth knowledge of local and international markets, its consolidated engineering and construction know-how and its continuous commitment to Research and Development (R&D), pursued by a dedicated department, Fisia Italimpianti is able to meet the needs of clients, such as public bodies, authorities and private companies, in the global challenge of increasing water availability in drylands or densely populated regions where natural resources are either insufficient or polluted, offering personalized and innovative solutions.

Plants already in operation and those under construction include projects in areas around the globe, including Saudi Arabia, Oman, United Arab Emirates and Latin America. In fact, in Saudi Arabia, Fisia built the Shuaibah-3 Expansion II RO desalination plant with a capacity of 250,000 m^3/day. It was the winner of the Global Water Awards 2020 in the "Desalination Plant of the Year" category, one of the most prestigious awards on a global level in the water treatment and desalination sector. Some of Fisia's latest acquisitions in the MENA Region include the Ghubrah III desalination plant (Oman), which uses RO technology, and the Zuluf water treatment plant for water injection applications in Saudi Arabia.

In Latin America, work is underway to construct a water treatment plant in Buenos Aires, Argentina, as part of the Riachuelo System, a water engineering project with a key role in reducing organic pollution of the Rio de la Plata, while three new treatment plants for the cellulose industry have been acquired in Paraguay.

fisia italimpianti
webuild group

IWS

Headquarter
→ Rubano (PD), Veneto

— integratedwatercare-solutions.it

Integrated Watercare Solutions (IWS) is a business network that offers water utility companies an integrated water service. It is comprised of three companies (2f Water Venture S.r.l., B.M. Tecnologie Industriali S.p.A. (Benefit Corporation) and Mea Engineering S.r.l.). 2f and BM joined the AlmavivA Group in July 2023.

The main services offered by IWS companies, whose common denominator is having the water market as their core business, involve: large-scale monitoring of urban drainage networks, drinking water networks and water treatment plants, water purification, network surveys and water loss engineering.

Conservation of the environment and protection of the territory constitute a cornerstone of the daily activities performed by the companies in the business network whose aim is to present itself on the market as a single interlocutor for integrated urban water managers, their products/services being complementary to one another. Each IWS company is highly specialized in the product/service it offers and has a consolidated market leadership role.

The innovative solutions the Group companies provide for the digitalization and optimization of Integrated Urban Water Management processes can be seen in the engineering activity that provides for the modeling, monitoring and water districting of water grids and large-scale monitoring of sewer systems.

With the short-, medium- and long-term monitoring of grids, IWS companies manage enormous quantities of data which are transmitted to water utility companies to provide detailed knowledge in real time of how water grids and sewer systems are performing to optimize their management and offer the client engineering information to reduce leakage and inflow and infiltration, and to prepare the numeric models that make it possible to predict network performance.

During monitoring, instruments produced by Group companies for the Italian market are applied to measure water flow, levels, pressure and quality. The companies in the network also produce battery data loggers with data transmission capabilities that are particularly suited for demanding situations in water grids and sewer systems.

Thanks to the data acquired through monitoring, the companies in the IWS network are engaged in the digitalization of Integrated Urban Water Management processes and have developed the SWMS (Smart Water Management System) platform, based on GIS, where all measurements are integrated and cross-referenced in order to provide information which can be used to take informed decisions. ASSET MANAGEMENT software has been integrated into the SWMS.

2F Water Venture S.r.l. is also a manufacturer of ultrasonic smart meters for billing, complete with non-payment shut off valve and sensor with NB-IoTdata transmission. 2F is also the Italian market distributor of the ASTERRA technology developed by Utilis for advanced satellite water leakage detection, whereas BM is the distributor of the KANDO technology that allows providers to identify potential sources of sewer pollution using a system that alerts the treatment plant of the time frame and type of pollution load on its way to the plant.

IMPRESA PIZZAROTTI & C. S.P.A.

Headquarter
→ Parma, Emilia-Romagna

— www.pizzarotti.it

Impresa Pizzarotti & C. S.p.A. is a leading company in the design and construction of large civil engineering works in Italy and abroad. A key player in continuous evolution, the Pizzarotti Group is recognized as one of the most important Italian corporate groups in the construction sector. Its core business consists in managing projects as an EPC Contractor, with activities also involving the implementation of initiatives developed under concession or project financing. Thanks to its expertise acquired as a General Contractor, Pizzarotti is a one-stop solution provider, capable of accompanying clients through a construction's entire life cycle. Pizzarotti also builds prefabricated structures for residential and industrial applications, deals with property developments in the Real Estate sector and is operational in and committed to the integrated water cycle.

Resolutely committed to excellence and sustainability, Pizzarotti & C. S.p.A. has achieved significant results in the construction sector. With an annual turnover of €1.2 billion in 2022, it is a company of significant size on the international scene. The global team is made up of 3,000 direct and 20,000 indirect employees involved in projects spread across 15 countries on 5 continents. The construction order portfolio stands at around €6 billion, 46% of which is concentrated in Italy with the remaining 54% abroad. Furthermore, Pizzarotti has a solid net worth, exceeding €180 million, which allows it to face future challenges with confidence and determination.

Pizzarotti firmly believes that business evolution must be based on solid fundamental values that are essential for anyone doing business in the infrastructure sector. Its operations are unwaveringly centered on safety, attention to people and clients, innovation, sustainability and social responsibility, topics which characterize the company's way of thinking and doing. Today, business and sustainability are permanently interlinked. Pizzarotti is always looking for partners who design, manufacture and market goods and services in accordance with the principles of circular economy—today the only type of economy capable of reducing the consumption of natural resources by decoupling demand from the consumption of natural resources.

In the context of the integrated water cycle, Pizzarotti faces crucial challenges aimed at developing smart infrastructure in the water and renewable energy sectors. It is committed to creating innovative solutions for energy and technological transition, using BIM and engineering skills for smart and sustainable revamping projects. Particular attention is being paid to civil and industrial wastewater treatment, in terms of both management and construction of modern systems in line with sector best practices.

Confirmation of Pizzarotti's commitment in this sector is given by its successful management of large-scale plants, such as the Cuma water treatment plant (one of the largest in Europe) with a 1.2 million population equivalent (PE) treatment capacity, and the Napoli Nord plant which can serve a PE of up to 866,000. Both plants, originally built in the 1980s, have been refunctionalized and upgraded in recent years and are outstandingly managed and run by Pizzarotti. These projects represent just a few tangible examples of Pizzarotti's constant commitment to the integrated water cycle sector.

SCHNEIDER ELECTRIC

In Italy for more than 100 years

Headquarter

→ Stezzano (BG), Lombardy

— se.com/it

Schneider Electric is the leading company in digital transformation of energy management and automation. The Group, guided by its president and CEO Peter Herweck, has over 130,000 employees across the globe, and in 2023 its revenues were €36 billion.

The company has been active in Italy since 1919. Today, it has five production sites, eight business offices, two innovation hubs and an integrated logistics center, and employs a total of about 3,000 people. Italy is also the home of an international center of excellence for emergency lighting and OEM Packaging Solutions Competence. Heading Schneider Electric Italia is its president and CEO Aldo Colombi.

Schneider Electric provides digital solutions for energy efficiency and industrial automation, as well as for efficiency and sustainability. It integrates the best technologies on a global level, real time automation, software and services, and residential, office, data center, infrastructure and industrial solutions.

Schneider Electric has chosen unique positioning within a strategic sector for the future to guide the digital transformation of automation and of energy and water management. Using the IoT (Internet of Things), the business solutions make it possible to connect, collect, analyze and intervene on data in real time while optimizing system security, efficiency, reliability and sustainability.

Schneider Electric is committed to offering integrated solutions, with a portfolio of activity designed to respond to all client needs to allow them to take full advantage of the new opportunities created by digitalization and boost competitiveness in today's increasingly technology-based economy. The company is involved in the management of technologies capable of redesigning industries and transforming cities by offering solutions for networks, offices and data centers.

The variety of solutions Schneider Electric offers allows it to satisfy its customers' needs in a range of industrial sectors, including the water sector. In fact, it is the technological leader in improving processes and applications throughout the water cycle through the EcoStruxure platform, based on interoperable digital architecture. The solutions it offers for the water cycle involve management of critical water infrastructure problems (scheduled and non-scheduled maintenance; management of regional basins; upgrading and supply of sustainable quantities of water); technological management of the sewer system; security, automation and optimization of wastewater treatment and desalination plants; strategic development and creation of smart water grids to improve efficiency, longevity and reliability of the infrastructure; maximizing return on investment; containment and management of water losses from distribution networks.

Life Is On Schneider Electric

SUEZ

Headquarter
→ Milano, Lombardy

— www.suez.com

SUEZ is a leader in the design, construction and management of municipal and industrial plants in compliance with the principles of workplace safety and environmental sustainability. Since 1963, SUEZ solutions have been focused on reducing emissions into the atmosphere, reclaiming treated water for irrigation and industrial purposes and reusing sewage sludge in energy production and agriculture, offering maximum environmental and social integration with minimum operating costs.
SUEZ has successfully built plants for both the civil and industrial sectors, taking care of their design, construction and management, in some cases also in the form of project financing.
SUEZ offers its clients the know-how and technologies needed for the transition of treatment plants into bio-refineries, offering solutions for recovering substances (phosphorus, nitrogen, sulfur) and energy (biomethane, heat, electricity) from sludge and organic waste in the context of circular economy.
SUEZ's experience in the water sector has been consolidated further still since 1989 with integrated water cycle management, particularly in Tuscany in the provinces of Arezzo, Pisa and Florence. The Group is present in Italy through joint enterprises recognized for their water performance excellence and know-how and is considered one of Italy's leading operators according to the ARERA standard which measures performance based on water grid efficiency in terms of water loss.
The Group's overall activities in Tuscany provide water cycle services to approximately 2.7 million inhabitants.
The Group is also one of the main shareholders in the multi-utility company, Acea, Italy's number one water management operator which serves a total of approximately 9 million inhabitants.
The continuous search for technological innovations aimed at improving the performance of infrastructures, optimizing investment, reducing costs and improving services is carried out through a range of digital solutions aimed at protecting and conserving environmental capital: water, earth and air. In particular, the technological package includes the Aquadvanced® software platform, for real-time monitoring of water infrastructure and decision-making support; the Digital Twin software solutions for implementing virtual sectorization; and the innovative Smart Metering for remote acquisition and real-time management of data relating to consumption and meter operating conditions.
In this context, Suez is proud to have supported a major Italian urban water manager (City of Milan) in its path of infrastructure digitalization and improvement of performance with implementation of the Aquadvanced platform modules for pumping station optimization, energy consumption reduction, real-time monitoring of water loss indicators and the virtual sectorization of the water grid.
A range of cutting-edge solutions are also available to promote air quality, the fight against climate change and energy transition.
The Air & Climate package offers real-time monitoring technologies for pollutant concentrations and odors, as well as the control of greenhouse gas emissions using precision sensors and digital platforms integrated with predictive systems.

XYLEM

Innovative technological solutions to tackle the world's water challenges

Headquarter
→ Lainate (MI), Lombardy

— xylem.com/it-it

Xylem aims to help its clients solve the most complex water challenges, treating water to make it drinkable, transporting it to where it is needed, using it as efficiently as possible, testing and analyzing its quality, and making it clean again following the countless uses to which it is put.
22,000 employees, united by a common goal: the creation of innovative solutions to meet the planet's water needs.
We transport, treat, analyze and return water to the environment, helping people to use water resources efficiently, at home, in commercial and public buildings, as well as in industry and agriculture. We have established solid and long-lasting relationships in over 150 Countries with clients who know our important product brands and value the expertise we show in our applications and our vocation to providing innovative solutions.
Xylem is a world leader in the design, manufacture and supply of motor and engine pumps, mixers and aeration systems, water filtration and treatment systems using oxygen, ozone and UV rays, monitoring and control systems, grid and treatment process management software, leak detection technology, grid mapping and water accounting.
With factories on four continents, Xylem products are used every day in wastewater treatment plants, sewer systems, drinking water purification and distribution systems, construction, the processing industry and numerous other applications.
Xylem news – 2023:
-Xylem Inc. (NYSE:XYL), a leading global water technology company, completes its acquisition of Evoqua Water Technologies Corp. ("Evoqua"), a company specialized in water treatment solutions and services. The world's most advanced platform for addressing critical water challenges is born. Evoqua offers various products such as filtration systems, aerobic and anaerobic wastewater treatment systems, clarifiers and separators, disinfection systems and high purity water systems. The company serves clients in the following sectors: water, food & beverage, municipal, life sciences, metallurgy & mining, oil & gas, pharmaceutical and energy. Headquartered in Washington, DC, the combined company becomes the world's largest water technology company, with $7.3 billion in pro forma revenue and more than 22,000 employees globally.
-Xylem consolidates its journey of digitalization with Xylem Vue powered by GoAigua. Xylem Vue is an integrated software and analytics platform that allows utility providers to connect and manage their digital assets and field instrumentation, optimizing water processes in a simple, safe and organic holistic vision. This integrated concept is based on the efficiency and quality of Xylem services to steer the digital transformation of its clients.
Sustainability is central to who we are and what we do: from our technologies and solutions to our commitment to corporate responsibility projects, sustainability is at the heart of our mission and our ethics.

xylem
Let's Solve Water

ALFA

Water is our world

Headquarter
→ Gallarate (VA), Lombardy

— alfanotizie.it

Alfa is the Integrated Urban Water Manager for the province of Varese. The company was established in 2015 and is fully publicly-owned. The Province of Varese, along with 141 Municipalities (eight of which from neighboring provinces) are its shareholders.

Alfa currently manages the water mains of 101 municipalities, supplying more than 85 million cubic meters of drinking water every year to a population of over 650,000 inhabitants. It has a 4,312-km water grid with 302 withdrawal wells, 362 springs and 338 storage tanks.

In terms of sewage services, 135 municipalities (with a population of approximately 865,000) are managed thanks to a network covering 3,765 km with 358 lift stations along the route.

Last but not least there are 78 water treatment plants taking sewage from 150 municipalities (16 outside the province of Varese) totaling almost 1,180,000 inhabitants. These plants treat approximately 106 million cubic meters of wastewater every year. In particular, the Caronno Pertusella - Gavirate and Origgio treatment plants are equipped with lines for treating liquid waste from septic tanks and from sewer cleaning operations brought in by tankers.

Alfa currently has more than 400 employees working in its administrative offices in Gallarate, laboratories and main water treatment plants located across the territory. Alfa has acquired the following technical standard certifications: SA8000:2014, UNI EN ISO 41001:2018, UNI ISO 45001:2018, UNI EN ISO 9001:2015, UNI EN ISO 14001:2015, UNI ISO 37001:2016. Furthermore, ALFA's laboratories in Caronno Pertusella and Legnano are UNI CEI EN ISO/IEC 17025:2018 accredited, thus guaranteeing the level of competence of these testing facilities.

Alfa has created its very own newspaper. Called Alfa Notizie (Alfa News), it seeks to inform readers on what the Water Service Manager does in the territory it superintends. But that's not all, it also includes numerous insights and collaborations aimed at turning the spotlight on the delicate (and more topical than ever) issue of climate change.

Among these decidedly noteworthy projects is the collaboration with meteorologist, Colonel Mario Giuliacci who, week after week, shares interesting anecdotes and precious information with readers.

ACQUE BRESCIANE SOCIETÀ BENEFIT

Every drop counts

Headquarter
→ Brescia, Lombardy

— acquebresciane.it

Acque Bresciane is a benefit corporation, holder of the Integrated Urban Water Management concession for the province of Brescia. Under total public governance, as of December 31, 2023 it serves 113 municipalities and approximately 700,000 inhabitants. Having a positive impact on the territory in which it operates is an integral part of Acque Bresciane's strategy and daily operations. Its primary core value is the implementation of sustainable integrated water cycle management, exploiting water resources in total observance of environmental balance and guaranteeing safe and universal availability to today's citizens and future generations. Tools to promote a positive impact on the territory include technological and digital innovation, training, inclusion and the valorization of diversity, always putting the safety and well-being of people first.

Acque Bresciane was incorporated by the Province of Brescia in 2016 and has been operational since 2017. Having gradually taken over from long-standing operators such as AOB2 S.r.l. in the Franciacorta area, Garda Uno S.p.A. and Sirmione Servizi S.r.l. on the western shore of Lake Garda, and ASVT S.p.A. in the Val Trompia, today the company has over 300 employees.

The water grid managed by the company covers a total of 4,824 km fed by 574 sources, including springs, wells and surface water intakes. The total quantity of water supplied is approximately 86 million m^3 per year. In the sewerage sector, Acque Bresciane manages a network of 3,301 km and 127 wastewater treatment plants for a population equivalent treatment capacity of 471,600 thousand.

To operate effectively and efficiently, Acque Bresciane focuses on research (in collaboration with prestigious Italian universities) and innovation. Its relationship with stakeholders is based on transparency, listening and involving people.

On December 31, 2022 Acque Bresciane was reported as having generated an economic value of €121.4 million, with a pro capita investment of €76 in the area served.

ACQUA NOVARA

Headquarter
→ Novara, Piemonte

— acquanovaravco.eu

Acqua Novara.VCO S.p.A. is the in-house Integrated Urban Water Management (IUWM) contractor in 137 municipalities in the Provinces of Novara and Verbano-Cusio-Ossola, under the administration of Local Water Agency No.1 "Verbano-Cusio-Ossola and Pianura Novarese", serving an overall catchment area of over 475,000 inhabitants.

The provincial territory can be divided into two zones, North and South which differ in altitude: the northern zone, mainly hilly and mountainous, and the southern zone which includes the Novara hills and plain, known as the "Novarese Lowlands". Acqua Novara.VCO offices are located in the provincial capital cities of the areas in which the company operates: Novara and Verbania.

The company is entrusted with the Integrated Urban Water Management throughout all stages in the value chain: from water catchment, to running plants and networks, up to the point where treated water is returned to the environment. In particular, it handles the management and maintenance of plants, the water grid and infrastructure, making investments that involve the use of new technologies to make the service more resilient and contribute to the professional growth of its employees and the sustainable development of the community in which it operates.

Acqua Novara.VCO has opted to integrate sustainability into its industrial activity, starting from the assumption that the economic value generated must bring benefits not only to the company but also to the territories in which it operates and its stakeholders. With the company's long-term success in mind, it became increasingly necessary to integrate sustainability into its core business, which is why Acqua Novara.VCO has made significant investment across the whole company with the aim of creating, step by step, a culture of corporate sustainability that can become an asset for everyone and permeate its day-to-day activities through the organization of numerous projects and initiatives.

In order to pursue its objectives, the company has developed a strategy in accordance with the following company policy:

"Providing water services at fair rates and consistent with the objectives defined with the involvement of stakeholders and in accordance with the indications of regulators, guaranteeing high standards of quality and safety, for the benefit of users and the environment and for the protection of our workers, in order to lead the way in the sustainable development of our territory."

The company is also active in terms of adapting to and mitigating the effects of climate change, with the overall aim of evaluating current and potential future effects of climate change on the availability of water in the area served, as well as hypothesizing and testing potential countermeasures of adaptation.

In 2023 (preliminary data) Acqua Novara.VCO recorded a turnover of approximately €66 million, investing in that same year over €35 million in water service infrastructure for a unit value of approximately €74 per served inhabitant, in line with the Italian average.

BARCHEMICALS SRL

In Italy for more than 35 years

Headquarter

→ Castelnuovo Rangone (MO), Emilia Romagna

— barchemicals.it
— barchemicalsbiopharma.com

Barchemicals is an Italian company operating in the Water Treatment and Disinfection sector. It was established to fulfill the need to guarantee water quality and consequently people's health. It offers specific services in the fields of analysis, prevention, water treatment and disinfection.

Barchemicals' philosophy is focused on the concept of Biosafety

The term Biosafety indicates a set of procedures, policies and preventive measures, along with controls and analyses, which guarantee the protection and safety of environments, assets and people against physical, chemical and, above all, biological agents which are harmful and pathogenic, preventing their proliferation and reducing the risks of propagation.

This objective is pursued day after day, with dedication and consistency, through the use of innovative solutions aimed at improving the quality of life, implementing increasingly eco-friendly and bio-sustainable policies with the responsible use of biocidal products and by participating in the biocide process in compliance with Regulation (EU) 528/2012 (Biocidal Products Regulation - BPR). Barchemicals is governed by art. 95 as it produces some chlorine-based active ingredients and many formulations that are currently registered as biocidal products in Italy and it has begun the Biocides process for European approval. Barchemicals' R&D center develops new specialty products every year and the Academy organizes various training courses for sector operators. For decades, the Barchemicals group has been welcoming high school and university students into the company for internships and to develop theses. Barchemicals manages the entire Biosafety process by collaborating with clients and partners in compliance with national and international regulations and protocols on Biosafety.

Barchemicals' philosophy envisages a 360° outlook, taking care of issues in their entirety, from procurement to supply, taking into account physical, technological, chemical, biochemical, biological and environmental aspects.

As well as being the owner of patents for biocide control and dosing technologies, Barchemicals is a pioneer in the creation of chemical products specifically formulated to solve problems while minimizing usage and respecting the environment.

It holds ISO 9001 and ISO 14001 certification and has an Accredited Analysis Laboratory (ACCREDIA No. 1879 L) which coordinates all control and Research & Development activities thanks to the passion of its team of scientists (chemists, biologists, engineers, agronomists).

The laboratory is registered in the list of Emilia Romagna Region accredited laboratories for the self-regulation of food products and, at the moment, it is the only private laboratory in Italy accredited to test water for Cryptosporidium and Giardia. It is active, both in Italy and abroad, in the Water Treatment (areas of Intervention: Legionella, Zootechnics, Water mains, Agri-Food, Environment) and Swimming Pool sectors (Professional Line, Detergents, "I Sali della Vita®" Line) producing chemical formulations for conditioning and treating all types of water. It also provides specific assistance services, training courses and consultancy (biological and chemical risk assessment and analysis, risk management protocols, prevention and resolution of critical issues).

BARCHEMICALS®

BRIANZACQUE SRL

In Italy for 21 years

Headquarter
→ Monza ,Vimercate, Cesano Maderno, Lombardy

— brianzacque.it

BrianzAcque SRL is a state-owned company that industrially controls the Integrated Urban Water Management service in the 55 municipalities of the Province of Monza and Brianza. Thanks to a particularly challenging strategy of mergers and acquisitions, today it is one of Italy's top 15 sector operators. Owned and controlled by 55 shareholder municipalities according to the in-house providing model, it takes care of the whole H_2O supply chain: water mains, sewerage, water treatment.

BrianzAcque has accomplished an ambitious journey of growth and consolidation which began with the acquisition of direct management from the municipalities and continued with the Alsi and Idra merger and integration of the Monza water management branch acquired from Acsm Agam. This journey of growth, undertaken in 2003, was completed with the acquisition of the water and sewerage management branches from the Cap Group and the Villasanta water management branch (2018).

Today, BrianzAcque is a state-owned company that deals with the Integrated Urban Water Management service and is directly owned and controlled by the Province of Monza and Brianza and its Municipalities. It is seen as a dynamic, strong and consolidated company in Lombardy and beyond; it received the Top Utility Award in 2023 which saw BrianzAcque appear as the best public service company on a national level and also won the Sustainability Report Award promoted by the Italian newspaper, “Corriere della Sera”.

Every year, it delivers approximately 80 million cubic meters of water to homes and businesses in the area, collects wastewater and returns it clean to the ecosystem after a complex water treatment process. The water grid covers approximately 3,107 km, handles 106.7 million cubic meters of water annually and finally, through hookups equipped with meters, delivers drinking water to homes and other points of use. The sewerage network runs through 2,954 km of pipes and includes 147 blackwater lift systems and 40 wet retention ponds (water basins designed to counteract the problems caused by what today are known as "rain bombs", intense rainfall that puts an adverse strain on stormwater manifolds, often saturating their capacity and causing overpressure phenomena).

Lastly, the treatment of wastewater coming from the area represents an important phase in water cycle management which, as its final act, returns the precious resource that is water to the environment, contributing to the safeguarding of rivers and their health. With 55.5 million cubic meters of treated water and approximately 869,101 inhabitants served, the service, concentrated in the two plants in Monza and Vimercate, represents an efficient management system capable of allowing high economies of scale.

Every day BrianzAcque is committed to meeting the needs of its Municipalities and the territory in which it operates: on a daily basis it takes care of maintenance, improvement and innovation of the networks, plants and infrastructures, applying rates that are among the lowest in Italy and Europe.

COMO ACQUA SRL

Sole Integrated Urban Water Manager in the province of Como

Headquarter
→ Como, Lombardy

— comoacqua.it

Como Acqua S.r.l., sole Integrated Urban Water Manager of the Province of Como, is a wholly public capital company that operates by adopting the in-house providing organizational model. The Company's exclusive object, in compliance with current legislation, is the control and provision of Integrated Urban Water Management across the entire water supply chain, including water grid, water treatment and sewer services, as well as the activities of administrative and financial management of the networks, systems and other capital assets instrumental to the operation of public services.
The company has been operating since 2019, following the merger by incorporation of the pre-existing service providers. As of 2024, it oversees a total of 147 Municipalities in the Province of Como, serving a total population of over 600,000 inhabitants. The aggregation process will be completed in 2026, when it will take over the management of the water grid segment also in the municipalities of Como and Brunate, the only two not yet included in its operational scope.
The company's water grid covers over 6,000 km, along with 3,000 km of sewers and 57 water treatment plants located throughout its reference territory. Como Acqua S.r.l. also has two internal laboratories, accredited in accordance with standard UNI CEI EN ISO/IEC 17025:2018, for both drinking water and wastewater. Over the last year, laboratory activities processed 4,250 samples of drinking water and 5,500 samples of wastewater, monitoring 135,000 parameters for drinking water and 45,000 for wastewater.
Como Acqua S.r.l. is a member of "Water Alliance - Acque di Lombardia", a network of thirteen Lombard service providers operating in the Integrated Urban Water Management sector by means of a joint-venture contract: Acque Bresciane S.r.l., Alfa S.r.l., BrianzAcque S.r.l., CAP Holding S.p.A., Como Acqua S.r.l., TEA S.p.A., Lario Reti Holding S.p.A., MM S.p.A., Padania Acque S.p.A., Pavia Acque Scarl, SAL S.r.l., Secam S.p.A. and Uniacque S.p.A. Mr. Enrico Pezzoli, President and CEO of Como Acqua S.r.l., is the Spokesperson of the "Water Alliance – Acque di Lombardia" network. Strongly dedicated to networking, the company is also part of the Observatory for a Sustainable Water Industry (OSWI), coordinated by AGICI Finanza d'impresa S.r.l. and Aqua Publica Europea (APE), whose management board also includes the company's President and CEO, Enrico Pezzoli.
The results achieved by Como Acqua S.r.l. have also been validated by some prestigious awards: in 2021 and 2022 it was awarded the Industria Felix Blue Seal of Quality for Financial Competitiveness and Reliability, whereas in 2023 it won a Le Fonti Award, an honor bestowed on companies that have excelled for their high levels of excellence, leadership, innovation and competitiveness in the water sector. Also in 2023, the President and CEO, Enrico Pezzoli, won a Le Fonti Awards as "CEO of the Year" and the company received the prestigious Legality Rating from the Competition and Market Authority.

COMO ACQUA

IRRITEC

In Italy for more than 45 years

Headquarter
→ Capo d'Orlando (ME), Sicily

— irritec.it

Irritec is an international group that plays an important role in saving the amount of water used in agriculture in over 100 countries around the world, offering high-tech, innovative and efficient precision irrigation solutions and transferring tools and know-how for the implementation of sustainable farming practices. Founded in Capo d'Orlando, Sicily, in 1974, the Company is a world leader in the precision irrigation sector, with an international network of over 800 collaborators and 16 production and commercial offices in Italy, Algeria, Brazil, Chile, Germany, Mexico, Peru, Senegal, Spain and the United States. At the helm of the group is the Giuffrè family — Carmelo Giuffrè and his children Giulia and Mauro — along with important and expert managerial figures who collaborate in defining company strategy and business aims.

Conserving the planet "drop by drop" and tackling global challenges with a replicable Circular Economy model: this is Irritec's vision. In fact the company specializes in the engineering, production and distribution of complete irrigation products and systems for open field, greenhouse and residential applications. Irritec integrates the principles of Sustainable Development into its strategic vision, organizational culture and daily operations, which is why it has opted to join the United Nations Global Compact, pursuing the objectives set out in the 2030 Agenda. A commitment that finds visible application in the commitment of Giulia Giuffrè, Board Member and Sustainability Ambassador, nominated "SDG Pioneer 2021 for Sustainable Water Management" by the United Nations Global Compact during the Leaders Summit in June 2021.

The various initiatives promoted by Irritec include Green Fields, an eco-sustainability project that is part of the Company's Circular Economy model. Launched in 2015 in Italy and in 2017 in Mexico, it is a program aimed at encouraging farmers to correctly dispose of irrigation system products (such as plastic drip lines) at the end of their service life to ensure they are recycled.

In its commitment to sustainability and shared value, the Company has set up the "Irritec Academy", a training program aimed at farmers, agronomists and students. Within this project, Irritec has developed "Agri-Lab", pilot projects aimed at developing countries, to train local farmers and educate future irrigation professionals, while at the same time offering a valuable contribution to the communities involved, in terms of both social and nutritional development. Agri-Lab is currently active in Senegal, in collaboration with AICS (Italian Agency for Development Cooperation).

LIVENZA TAGLIAMENTO ACQUE S.P.A.

Headquarter
→ Portogruaro (VE), Veneto

— lta.it

Livenza Tagliamento Acque S.p.A. is the public company that controls the Integrated Urban Water Management service in 30 municipalities in Friuli-Venezia Giulia and in 12 municipalities in Veneto, located in the provinces of Pordenone, Venice and Treviso.

Specifically, this means responding on a daily basis to the needs of 290,000 residents and, in the summer months, being prepared to meet spikes in demand due to the roughly six million tourists that arrive annually in the resort area of Bibione.

Although recently formed, the company is deeply rooted in the area and has long-standing technical, economic and financial experience dating from the late 1950s. Created in 2014 from the merger of Acque del Basso Livenza S.p.A. and CAIBT S.p.A., in 2017 it acquired Sistema Ambiente S.r.l. to become the second-largest "in-house" Integrated Urban Water Manager in Friuli-Venezia Giulia.

In January 2024 LTA became a Benefit Corporation (although opting not to change the company name), a model that allows the company to combine corporate sustainability and people's needs, with the aim of pursuing goals of common benefit and having a positive long-term impact on society and the environment by operating in a responsible, sustainable and transparent way.

This expansion made the company more competitive and more economically solid while reinforcing its investment capabilities, aspects that are indispensable to guaranteeing an ever-growing level of quality.

A single area served, but one with a range of different aspects and, ideally, divisible into two areas—western Friuli and the interregional basin of the Lemene River. An ongoing challenge that means operating in a complex context that requires a structurally elaborated and technologically advanced system.

These include numerous sources of supply, artesian wells with lift stations for drawing water from underground aquifers; a high-tech network of aqueducts that laces the local area for a total of 3,209 km and management of sewage services with a network covering 1,569 km and 137 wastewater treatment plants. In addition to these are the constant monitoring and control of the drinking water distributed and, subsequently, the waste water.

In 2022, LTA's economic performance was positive, when the value of what it produced was €49.5 million (+17% over 2021), with a gross operating margin of €5.2 million, as well as a €916,000 profit—significant results achieved thanks to the efforts of the company's 200 employees.

Also significant are the investments made in the local area: €31.7 million, +28% over 2021 (€109 average investment per resident), which as estimated generated positive spin-offs for the national economy worth €54.6 million and led to the creation of 697 equivalent full-time jobs. The economic and employment impact involved approximately 70% of the Veneto and Friuli-Venezia Giulia regions.

MADDALENA S.P.A.

Historic trademark of national interest

Headquarter
→ Povoletto (UD), Friuli-Venezia Giulia

— maddalena.it

Maddalena S.p.A. is a leading international company in the water and thermal energy measuring instruments sector. Founded in 1919, over the years it has continued to evolve its corporate structure and catalog of meters for domestic and industrial use. The factory in Povoletto (UD) boasts the highest production capacity under a single roof in Europe and produces over 3 million instruments a year. As well as its Friulian headquarters, the company also has a production site in Germany, Maddalena GmbH.

With a constant focus on innovation, Maddalena S.p.A. offers a complete range of smart meters, with mechanical and electronic mechanisms, in compliance with the latest European measuring instruments and health & safety directives. This involves a company commitment towards its stakeholders to design solutions that respect people and the environment.

Forerunners in remote reading technologies, the company is always in step with market challenges and it is committed to continuous development of flexible and open solutions for data transmission and centralization according to IoT paradigms. Maddalena S.p.A. also has an ISO 9001, 14001, 27001, 45001 certified Integrated Management System and an Accredia 17025:2018 accredited calibration laboratory. For several years now, the company has adopted a Code of Ethics (as per Italian Legislative Decree 231/01) and has voluntarily published its first Sustainability Report, thus continuing along the path it undertook in 2021 when it obtained SA8000 certification and Ecovadis Rating. The company was also included in the Forbes 2023 Top 100 Italian Companies for Sustainability.

In a global scenario in which water is, and will increasingly become, a scarce and precious resource, Maddalena S.p.A. is a member—from its inception and the first in its sector—of the Value of Water for Italy Community, and works assiduously towards the concept of measurement efficiency with a focus on water conservation, totally in line with its mission: making water metering the essential basis for water efficiency in the world.

METERSIT

A company belonging to the SIT Group, since 2009 MeteRSit has been designing, manufacturing and marketing smart gas meters for both conventional and non-conventional gases (such as H2 and synthetic gases) that are innovative in terms of metering technologies and communication functions

Headquarter
→ Milano, Lombardy

— metersit.com
— sitcorporate.it

MeteRSit has always sought to be a synthesis of innovation and reliability, and was the first to launch metering technologies and construction solutions onto the market that improve performance at competitive prices, while at the same strictly adhering to the reliability standards and design and construction criteria set by the SIT Group. In just a few years, MeteRSit has established itself as a key player in the markets where it operates thanks to products that improve the way in which gas is metered, sold and used, making the relationship between utility company and end customers more transparent and improving the awareness of end customers as to their consumption.

SIT also operates in the Water Metering market. Through its acquisition of Janz, a consolidated Portuguese operator which has been part of the group since the end of 2020, SIT entered the water market with a logic of creating value and protecting this natural resource thanks to a capacity for precise metering, meter reading and data transmission, know-how which is available thanks to MeteRSit's experience.

At the end of 2022, SIT and GWF, a pioneer company in the development of advanced technologies for metering infrastructures, entered into a strategic partnership for the development, manufacture and distribution of ultrasonic smart water meters for residential applications. A partnership dedicated to supporting utility customers in the water sector and helping local municipalities increase efficiency and accelerate their sustainability strategies at the best overall operating costs thanks to high-performance smart water meters.

The SIT Group

Through its three Business Units "Heating & Ventilation", "Smart Gas Metering" and "Water Metering", SIT creates intelligent solutions for controlling environmental conditions and measuring consumption for a more sustainable world. A multinational leader in the reference markets and listed in the Euronext Milan segment, SIT is striving to be the leading sustainable partner for energy and climate control solutions at the service of client companies, placing great attention on the experimentation and use of alternative gases with a low environmental impact. The group is present with production sites in Italy, Mexico, the Netherlands, Romania, China, Tunisia and Portugal, as well as having a commercial structure that covers all relevant global markets. SIT has joined the United Nations Global Compact and abides by its principles that promote a responsible way of doing business. SIT is also a member of the European Heating Industry and the European Clean Hydrogen Alliance.

SIT is committed to energy and ecological transition and in 2022 it presented its 2025 Sustainability Plan "Made to Matter":

Digitalization, Technological Innovation and Lean Culture support transformation and enable the organizational and development processes of SIT products, therefore representing transversal and enabling elements of the Sustainability Plan and the Group's activities.

PADANIA ACQUE S.P.A.

The sole Integrated Urban Water Manager in the Province of Cremona

Headquarter
→ Cremona, Lombardy

— padania-acque.it

The Company was founded, over 70 years ago in 1953, as a "Consortium for drinking water in the Municipalities of the Province of Cremona", with the aim of constructing aqueducts to serve the population of Cremona. In 1995 it took the legal form of a joint stock company with wholly public capital and since 2014 it has been the in-house Integrated Urban Water Management (IUWM) contractor, under a direct 30-year concession. Padania Acque handles every stage of IUWM (withdrawal, purification and distribution, sewerage and water treatment) throughout the provincial territory, and its activities are subordinated to the directives of the Local Regulatory Authority in full compliance with the sector regulations dictated by the Regulatory Authority for Energy, Networks and Environment (ARERA).

Thanks to the hard work of around 200 employees, Padana Acque serves 113 Municipalities, for a total of almost 180,000 points of use and over 350,000 inhabitants. It manages 2,200 km of water grids, 67 aqueducts, 2,100 km of sewer networks, 237 withdrawal wells, 74 purification plants, 102 water treatment plants and 109 drinking water dispensers. Thanks to its operations, every year over 30 million cubic meters of water are released into the water grid (with a water loss rate of 23%) while almost 44 million cubic meters of wastewater are treated. In 2023 the Company invested the equivalent of €85/inhabitant, an amount in line with European best practices.

Padania Acque has obtained renewal of its ISO 22000 and ISO 9001 certifications, respectively attesting the quality and food safety of the drinking water supply systems in every stage of the production process, and the quality of the company's management system, processes, IUWM systems and drinking water dispensers. It has also obtained ISO 45001:2018 certification which recognizes observance of worker health & safety regulations in all its activities. Its analysis laboratories have ISO/IEC 17025 certification for meeting the "General requirements for the competence of testing and calibration laboratories". Padania Acque has also obtained Legality Rating, a prestigious national recognition awarded by the Competition and Market Authority (AGCM) to companies that meet high ethical and legal standards in terms of quality, social responsibility, legality and transparency in their management activities.

The Company belongs to regional, national and international associations: Water Alliance – Acque di Lombardia, the alliance created by 13 Lombard public companies operating in IUWM; Confservizi CISPEL Lombardia, which represents companies operating in public utility sectors; Utilitalia, a federation of Italian companies operating in public services; Aqua Publica Europea, the European Association of Public Water Operators. The service provider's commitment is aimed at sustainability, expressed in its social, environmental and economic dimensions, in line with the objectives of the United Nations 2030 Agenda. Efficiency and quality of management, investment, technological and digital innovation, an ethical and social vision of public service, the adoption and implementation of green policies and the promotion of a "water culture" are the guiding elements of its business operations.

Padania Acque was recognized by ARERA as a top performing Integrated Urban Water Manager for technical quality at a national level in 2018-2019 (1st place) and 2020-2021 (2nd place).

PIAVE SERVIZI SPA.

Headquarter
→ Codognè (TV), Veneto

— piaveservizi.eu

Piave Servizi S.p.A., a company with total public participation, manages the Integrated Water Service in 39 municipalities in the provinces of Treviso and Venice. The area served covers more than 1,000 km2, a territory characterized by heterogeneous elements, including mountain and foothill areas, low and high plain areas, lagoon areas, and by a complex ecosystem that is hydrogeologically very rich and characterized by an important entrepreneurial fabric.

Thanks to its networks (more than 3,000 km of aqueduct pipelines and more than 1,300 km of sewer pipelines) and plants (86 wells and springs, 365 lifting plants, and 39 purification plants), the Company takes care of the water resource, ensuring safe and quality service to more than 340,000 citizens every day, and is committed to returning clean and controlled water to nature. In addition, the company is committed every day, also thanks to an organized H24 on-call and intervention service, to guarantee all users quality, safe and controlled water.

In 2022 it made investments worth more than 18 mln, a value of production of 50 mln and a profit for the year of more than 2.9 mln, a profit not distributed, by the unanimous will of the Shareholders, but retained in the Company to be redeployed in investments for the territory.

The Company, in its approach to sustainability, in addition to the environmental aspects put in place for a responsible management of the water resource (constant monitoring of the quality of water returned to the environment, emissions and energy consumption, etc.,) and governance (incorporating values and ethics in the governance of the Company), pays special attention to the "people of Piave Servizi," an essential resource for the realization of the corporate mission. For this aspect, the Company is committed to protecting the diversity and uniqueness of each person, caring for their health, well-being and supporting their personal development through training and work-life balance. Attention to social impacts is extended to the entire value chain, supporting the local community and users, promoting environmental education, and generating shared value for the benefit of users as well as all stakeholders, the local area, and the local ecosystem.

By mid-2024, the transformation of Piave Servizi into a Benefit Company, that is, a company that together with the exercise of economic activity, pursues one or more purposes of common benefit, operating in a responsible, sustainable and transparent way towards the territory, environment, community, people and other stakeholders, will be completed. The project was welcomed and shared favorably by all Members.

RDR S.P.A. Benefit Corporation

In Italy for more than 50 years

Headquarter

→ Torre del Greco (NA), Campania

— rdr.it

RDR S.p.A. (B.C.) is the leading Italian operator working in the Integrated Water Cycle sector. It specializes in the engineering, construction, management and maintenance of water grid works and water treatment plants across Italy.

In 2023 it presented its first Sustainability Report after transforming its Articles of Association to become a Benefit Corporation in 2022. This reflects how the Campania-based company is constantly committed to promoting the well-being of its workers, the environment and the community in which it operates.

The Gender Equality certification the company obtained in October 2023 rewards it for its vision and foresight, also and above all on issues of social sustainability.

In RDR, technological innovation plays a key role in achieving Sustainable Development Goals. The synergy between RDR's experience acquired over fifty years and the world of AI and IoT, the core business of its subsidiary Nexus Tlc, has made it possible to launch two innovative solutions on the market for streamlining and improving the management of water infrastructures: brAInbox® and Flowcontrol®. The first, thanks to artificial intelligence algorithms and predictive maintenance logic, is able to manage alerts and give indications on strategy and type of intervention to be carried out on strategic assets while the second exploits IoT technology to monitor and alert the service provider in the event of any anomalous activation of spillways and sewer networks, preventing harmful impacts on the environment.

In perfect harmony with its mission—"giving value to water"—RDR offers its services to the reference market supported by a constant process of technological innovation for greater sustainability across the entire water supply chain.

To date the company extends across an area of over 40,000 m^2, of which 10,000 m^2 are indoors, for its Operations and Offices in Torre del Greco (NA), as well as its operational offices in Calenzano (FI), Guidonia (RM), Elmas (CA), Concorezzo (MB), and Noci (BA), through which it can offer services to Integrated Urban Water Managers across Italy, 24 hours a day. In 2023 it strengthened its presence in the North-East with a representative office in Limena (PD).

In 2023 it was recognized, for the fifth consecutive year, by Deloitte as one of Italy's Best Managed Companies and was also one of the 96 finalist companies, out of 600,000 contenders, for the SDA Bocconi award which aims to reward the best companies that create economic, technological, human, social and environmental value by operating in an all-round sustainable way.

Through its 100% control over Darf S.r.l., specialized in the construction, maintenance and emergency repair of water and sewer networks, and Officine RDR Aviomar, specialized in electromechanical repair and maintenance services, PWC places the group, with its turnover of over €60 million and over 400 employees, among the TOP 500 companies in Campania.

During its evolution, RDR has obtained important certifications by adopting an Integrated Management System: Quality (UNI EN ISO 9001:2015), Environment (UNI EN ISO 14001:2015), Safety (UNI ISO 45001:2018), Energy (ENI CEI EN ISO 50001:2011), Anti-corruption (UNI ISO 37001:2016), Social Responsibility (SA 8000:2014), AGCM Legality Rating ●●● and Gender Equality (UNI/PdR 125:2022).

RINA

In Italy for more than 160 years

Headquarter
→ Genoa, Liguria

— rina.org

With over 160 years of experience in different sectors, RINA is a multinational company that helps clients develop successful business. With a global network of over 5,000 professionals operating in 200 offices across 70 countries, we support clients throughout the entire life cycle of their projects, including the redevelopment of products, technologies and services. Our experience in ship classification has made us one of the leading companies in this sector, promoting an ecological approach and committing ourselves to saving energy, reducing emissions and optimizing consumption. We support sustainable growth in the energy sector, including conventional and renewable energy production and electricity grids, with a marked focus on the environment. Our team in the industrial sector provides support to increase competitiveness through materials, technologies and innovation, giving special attention to the steel & special alloys, aerospace and defense industries. We offer independent certification services to ensure regulatory compliance and support clients in all aspects concerning projects, operations, logistics and regulations. For the mobility and infrastructure sectors, we provide customized services to optimize the value of assets, observing standards and agreed costs, quality, safety requirements and deadlines. RINA, in line with its corporate purpose, incorporates attention to sustainable development goals and ESG aspects into its strategy in order to anticipate global challenges and respond to society's needs. Our material topics, and therefore our ambitions, are linked to some of the SDGs established by the United Nations 2030 Agenda. Specific services concern:
Water, Wastewater and Waste Management: we offer Master Plan and Feasibility Study drafting, integration engineering of waste disposal, treatment and recycling technologies, as well as groundwater and surface water treatment projects.
Dams and Hydraulic Engineering Works: we provide design and engineering services for developing a variety of large-scale hydraulic engineering works.
Control and Monitoring: we offer solutions for managing the soundness of civil and industrial water/wastewater infrastructure assets.
Risk and Safety: we support safety engineering for interventions in potentially hazardous areas and design remediation measures in compliance with applicable national and local regulations.
Cyber Security: we assess the business impact of cyber threats, protecting resources, preventing attacks and mitigating risks with the ultimate goal of creating a culture of cyber resilience among water and wastewater management organizations.
Seismic Assessment: we assess the seismic vulnerability of existing and planned water transportation pipelines and relative infrastructure portfolios in order to identify risk priorities and estimate construction costs for improvements, as well as plan and manage seismic upgrading.
Resilience Engineering: we provide support in preventing, detecting, responding and recovering from extreme natural events, climate change and technological security threats.
Environmental and Economic Sustainability: development of Life Cycle Assessment (LCA) and Water Footprint Verification in accordance with ISO 14046:2016; consultancy and support for Green Finance activities and DNSH verification; Program/Project Management activities (PMO / PMC).

SORICAL S.P.A.

Sole Integrated Urban Water Manager in Calabria

Headquarter
→ Catanzaro, Calabria

— soricalspa.com

SORICAL is today a company with wholly public capital. Founded in 2004 as a joint enterprise for managing large aqueducts in Calabria, in 2022 it was identified by the Local Governing Body as the sole Integrated Urban Water Manager for Calabria.
The Calabria Region owns 53.5% of the share capital while the remaining 46.5% is provisionally held by the company pending completion of the process which, commencing in the next few months, will transfer 40% of the shares to Calabria's 404 municipalities.
Today SORICAL distributes drinking water to 380 municipalities and authorities through approximately 4,500 km of large delivery pipelines, 795 dividers and over 1000 storage tanks. Drinking water production sources include 236 springs, 724 wells, 11 water diversion barriers, 2 dams and 14 purification plants which feed 157 aqueduct systems. The water supplied to the municipalities amounts to 286 million m^3 a year.
The infrastructural assets currently managed by SORICAL also include 2 dams: the Alaco dam, creating a reservoir with an annual water flow regulation capacity of 32 million m^3, which, thanks to the modern purification plant located downstream makes it possible to deliver an average flow rate of drinking water of up to 400 liters/second to 16 municipalities in the province of Vibo and 6 municipalities in the province of Reggio Calabria, and the Menta dam which serves the city of Reggio Calabria. Acquisition of water management of the 404 municipalities will give SORICAL control over the relative assets: 520 wellfields, 792 springs, 1200 storage tanks, over 9,254 km of water grid, 7,800 km of sewer networks and 536 water treatment plants.
The operational area involved in managing the large-scale water distribution schemes is currently divided between 10 local offices to ensure maintenance interventions are quickly dealt with; the administrative and management headquarters are located in the Germaneto district of Catanzaro. In 2022 SORICAL recorded a production value of €140 million and a workforce of 246 employees.
In 2023 the process to take over existing integrated urban water management services controlled by the Municipalities (most of which under direct management) began with the transfer of Reggio Calabria's IUWM (serving approximately 1/10 of the regional population).
Recently, ARRICAL (Calabria Waste and Water Resources Authority) approved the plan to transition over to integrated urban water management. The plan envisages a gradual takeover of existing service providers over a three-year period (2024 – 2026) for the first 157 Municipalities (total population of 1,113,660) and the takeover of the remaining 247 Municipalities starting in 2027 until the entire served regional population of 1,855,454 is reached, divided into 7 operational districts identified based on management efficiency criteria.

sorical
società risorse idriche calabresi

SO.T.ECO. S.p.A.

On the Italian market for more than 45 years

Headquarter
→ Santa Maria Capua Vetere (CE), Campania

— sotecospa.com

SO.T.ECO. S.p.A., a company operating on the market for over 45 years, has been able to conquer and maintain over time a leading position in the treatment of raw water, household and industrial sewage treatment, and management and maintenance of plant and equipment. More specifically, the company is involved in the entire treatment cycle, from the design of water treatment and purification plants to their construction, maintenance, management and operation, and in the supply of chemical products for water purification and sewage treatment. This position is the result of the company's strong and constant focus on quality and innovation which provides the impetus to develop technologies and services that are always in the vanguard. The result of a natural evolution that began in the 1970s and progressed with the creation of its in-house research lab, SO.T.ECO. S.p.A. has been able to establish itself in the market with its proprietary patents which were precursors to what is today the modular approach in the treatment sector. This constantly-growing commitment to research and processes blossomed in the 1990s into an approach that was increasingly open and receptive towards innovative aspects. Furthermore, SO.T.ECO. S.p.A. is also involved in engineering and building control systems used in the production and dosing of chlorine dioxide which is needed for drinking water disinfection. Research, development, innovation, flexibility, orientation towards the market, and development of collaborative relationships and partnerships with European companies for product development and production technologies are the ingredients which, already in 1999, led the company to have its own certified Quality System based on UNI EN ISO 9001:2008 and ISO 14001:2004 that forms the basis of SO.T.ECO. S.p.A.'s concept of work, products and services. An approach that has proven to be a winning one and which will also accompany the company in the new millennium. SO.T.ECO. S.p.A. operates with its own certified Quality System, monitoring its up-to-dateness and its coherence with company goals.

SO.T.ECO. also possesses the SOA qualification certificate for the execution of public works for the following qualification categories and classifications:

— OS22 Classification VIII (unlimited)
— OG 6 Classification VII
— OG 1 Classification III
— OS 30 Classification II

It has also acquired the following certifications:

Quality Management System certification according to standard UNI EN ISO 9001:2015; Quality Management System certification according to standard UNI EN ISO 14001:2015; Safety Management System certification according to standard UNI EN ISO 45001:2018; SA 8000:2014 certification; UNI ISO 37001:2016 certification; UNI ISO 39001:2016 certification; Reference Practice for Gender Equality Certification UNI PDR 125:2022; ●●● Legality Rating awarded by the Competition and Market Authority; Registered in the White List at the Prefecture of Caserta since 02/20/2017; Since 09/18/2017 the Company has been adopting the Organization, Management and Control Model (Model 231) pursuant to Legislative Decree No. 231/2001, complete with Code of Ethics and Disciplinary System.

SOTECO S.p.A.
Depurazione e Trattamento Acque

SPARKASSE — CASSA DI RISPARMIO DI BOLZANO

Fondata nel 1854

Headquarter
→ Bolzano, Alto Adige

— sparkasse.it

Sparkasse - Cassa di Risparmio di Bolzano is one of the most important independent savings banks in Italy. As the Sparkasse Group, with the acquisition of CiviBank in 2022, it represents the leading independent credit provider based in the Northeast, ranking immediately after the four major national banking groups. It has a presence throughout the Northeast, Lombardy, Emilia Romagna, and abroad in Munich, with a network of 170 branches, where more than 1,900 employees follow more than 302,000 customers.

Founded in 1854, Cassa di Risparmio di Bolzano, the first bank in Trentino-South Tyrol, has been a joint stock company since 1992 and has about 23,500 members. The majority shareholder is the Sparkasse Foundation of Bolzano.

Also part of the Sparkasse Group is Sparim SpA, a wholly owned subsidiary of Sparkasse, which is responsible for the management of the Group's real estate assets, both with reference to properties instrumental to the banking business (3 headquarters and 170 branches with a total area of about 100 thousand sq. m.) and with reference to non-instrumental assets (more than 60 properties with mixed residential/commercial/office use, mostly for income, but also with an important component of development operations).

The Sparkasse Group took a decisive step toward carbon neutrality in 2023 with the new company "Sparkasse Energy" to generate green energy to cover the energy consumption-and related CO_2 emissions-of the entire Group .

SPARKASSE
CASSA DI RISPARMIO

UTILITALIA

Federation of water, environmental services and energy companies

Headquarter
→ Rome, Lazio

— utilitalia.it

Founded in 2015, Utilitalia brings together utility companies operating in the water, environmental, electricity and gas sectors, representing them in national and European institutions. Its historical heritage, made up of experience and expertise, dates back to the early 1900s when the Federation of Italian Municipal Corporations was created.

Today it brings together different bodies, including joint-stock companies, consortia, municipalities, special undertakings and other entities, for an overall total of around 400 companies with a production value of €38.5 billion and over 95,000 employees. The Federation represents almost all the companies operating in the Italian water sector (67% of the country's population served), over half of the environmental services companies (54% of the population served) and a good portion of gas and energy providers (27% and 10% of the population served respectively).

Utilitalia is a point of reference for National Collective Labor Agreements (CCNL) and for relations with trade unions. The Gas-Water CCNL, which Utilitalia signs together with the sector associations of Confindustria, is applied to approximately 37,000 workers. It is also a signatory of the CCNL for the Electricity sector, applied to approximately 12,000 employees of associated companies, and is the holder of the CCNL for environmental services, applied to over 47,000 workers of associated companies.

The Federation also provides transversal organizational management of issues concerning the infrastructure and market regulation activity carried out by ARERA (Regulatory Authority for Energy, Networks and Environment) by monitoring and analyzing the evolution of economic-rate regulations and the technical and commercial quality of the services regulated in the sectors of interest.

The legal-legislative and fiscal department also carries out careful monitoring of regulatory and legal changes regarding local public services of economic relevance for member companies, providing the necessary support for resolving issues of interpretation and implementation.

The mission of Utilitalia member companies is to guarantee efficient and accessible services for citizens, ensuring the conservation and promotion of environmental resources and guaranteeing a contribution to the modernization of the country, in line with other European countries. In this regard, the Federation, representing Italy, is a member of a series of European and international sector bodies such as, among others, the European Centre of Employers and Enterprises providing Public Services and Services of General Interest (SGI Europe), the European Federation of National Associations of Water Services (EurEau), the International Water Association (IWA) and Municipal Waste Europe (MWE).

UTILITALIA
imprese acqua ambiente energia

UTILITATIS

Promoting knowledge, innovation and best practices in the management of Local Public Services.

Headquarter
→ Rome, Lazio

— utilitatis.org

The Utilitatis Foundation is the result of a journey that began in 1995 when Federgasacqua (now Utilitalia) set up the public services research institute, Proaqua. From the very beginning it has been a non-profit consortium focused on technical-economic study and research activities and on supporting Administrations and Companies interested in service reorganization processes.
In 1999 the Institute expanded its research activities, previously centered exclusively on integrated urban water management, to other local public services, such as natural gas distribution and urban waste management, becoming a public services research center, CRS-PROAQUA.
In 2006 the research center changed its name to UTILITATIS pro acqua, energia e ambiente.
In May 2011, the consortium became a Foundation, strengthening its mission as an entity oriented towards promoting a culture of local public service management and disseminating legal, economic and technical information.
In 2021, Founder-Promoter, Utilitalia, supported the functional reorganization of the Foundation, relaunching its study and research activities, increasing its scientific standing while at the same time developing its commercial activities in both training and consultancy, even beyond the foundation's domain.
The Foundation aims to promote knowledge, innovation and best practices in the management of Local Public Services, improving their quality and efficiency as well as their economic, social and environmental sustainability, orienting the business model towards sustainable success, i.e. the steady creation of long-term value for its shareholders in a way that is also shared with the relevant stakeholders.
The Foundation's activities are focused on the drafting of periodical sector publications, such as the Blue Book and the Green Book, monographs that deal with the technical, economic and governance aspects of the water management and waste management services which report proprietary data of the service provider; the Orange Book, dedicated to innovation in public services; and the Utilities Sustainability Report, which includes the extra-financial performances of Utilitalia members. It also collaborates to study and research projects with other Italian and foreign research centers and foundations.

The European House — Ambrosetti

Headquarter
→ Milano, Lombardy

— www.ambrosetti.eu

The European House - Ambrosetti is a professional Group, with 300 professionals, operating since 1965, which has grown significantly over the years, thanks also to the contributions of many of its Partners, developing numerous activities in Italy, Europe and the rest of the world.

Today the Group has three offices in Italy and many abroad, in addition to other partnerships around the world. What distinguishes it is its ability to provide support to companies in the integrated and synergic management of the four critical aspects of value-creating processes: Seeing, Planning, Achieving and Optimizing.

For over 50 years we have been working alongside Italian businesses and each year we provide consulting to about 1,500 clients, including more than three hundred and fifty strategic scenarios and studies aimed at Italian and European institutions and companies, and around one hundred and twenty governance pacts for family-run businesses. In addition, each year about 3,000 Italian and international experts are involved in more than 750 events we organize for over 18,000 managers whom we follow in their personal and professional paths to growth.

The Group vaunts an invaluable international network of contacts on the highest level in the sectors in which it operates, including top-level decision-makers within multinational institutions and on an individual country level.

Since 2013, The European House – Ambrosetti has been named — in the category Best Private Think Tanks — the no. 1 think tank in Italy, the no. 4 think tank in the European Union and among the most respected independents in the world out of 11,175 on a global level (source: “Global Go To Think Tanks Report” of the University of Pennsylvania). The European House - Ambrosetti was recognized by Top Employers Institute as one of the 147 Top Employers 2024 in Italy.

The European House Ambrosetti

The Value of Water Community: goals, activity and players of the fifth edition 2023/2024

Mission, approach and working method of the fifth edition of the Value of Water Community

Water is an **essential element** which, for thousands of years, has governed life on Earth and regulated its equilibrium. And yet, in recent decades, we are witnessing an unprecedented change in global climate with significant impacts on the hydrologic cycle and water resources of our planet.

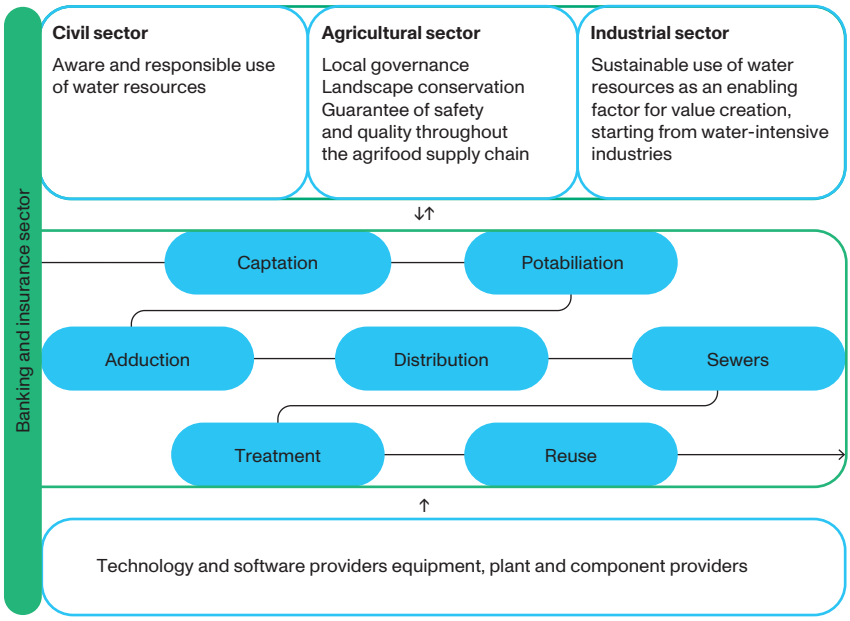
Water covers **70%** of the Earth's surface, but only about 3% is available for human consumption. Climate change, triggered primarily by man's activity, is **altering atmospheric patterns** and seriously affecting the availability of freshwater. Extreme weather phenomena, such as flooding, drought and a rising sea level, are becoming more frequent and intense, with negative consequences for many areas of the world. In fact, the effects of climate change are being seen increasingly not only in tropical and subtropical countries, but also western ones.

Given the speed with which the reference scenario is evolving, urgent, serious and in-depth debate regarding water resources is required to bring together leading expertise in this area to create a systemic, across-the-board approach.

On the basis of this, in 2019, together with leaders of the extended water value chain in Italy, The European House – Ambrosetti founded the **Value of Water Community**, a permanent multi-stakeholder platform for constructive discussion to deal with the management of water resources as a driver of sustainability, competitiveness and industrial development, with the goal of elaborating proposals for the government and national economy.

The Value of Water Community brings together representatives from the **entire extended water value chain** in Italy. It is comprised of players who use water as a primary production input (agriculture, water-intensive industries and energy sector companies), operators in the extended water cycle, i.e. IUWM providers and input providers for the water supply chain (technologies, software, machinery, water consumption distributors, etc.) and the banking and insurance sector.

FIG I →
Extended water value chain players



The European House – Ambrosetti data elaboration, 2024.

The **mission** of the Value of Water Community is the following:
To be the **multi-stakeholder think tank** to develop scenarios, strategies and policies in support of the **extended water value chain in Italy** and its development to aid Italy in becoming a **European and world benchmark**.

The **development vision** for the nation and its economy which, from its inception, the Value of Water Community has intended promoting is:
To establish Italy as a **sustainable Country**, starting from the **efficient, local and circular management of its water resources**, that is involved in fully mitigating the risk tied to this resource and is capable of attracting investment and technological innovation throughout the extended supply chain, with authoritative influence on a European level and which makes sustainable water management a **competitive and development-oriented asset**.
To progress from ranking **21st** in the Value of Water for Sustainable Development index to **19th by 2022** (a goal not attained until 2024), **13th by 2025** and **7th by 2030**.

The Value of Water Community has set itself the following **goals**:
- **reaching shared positions** on priority issues for efficient and sustainable management of water resources in Italy;
- developing **expert advocacy activity on an Italian and European level** to provide authoritative and researched content and proposals;
- producing **new ideas and knowledge** about the extended water supply chain in Italy and Europe;

— **promoting the exchange** of **experiences and high-level networking** among Community members and authoritative external stakeholders;
— producing **formalized content** in support of Community goals;
— developing **educational activities** for both players in the extended water value chain and public opinion;
— **authoritatively communicating** the arguments and positions of the Community to raise interest and awareness among the business community, policy makers and society at-large;
— mapping, contacting and involving leading international players with **technological expertise and successful experiences**.

The work of the fifth edition of the Value of Water Community was performed between April 2023 and March 2024 through a series of interconnected activities utilizing a **multi-level working method** that included discussion, listening and awareness-raising, intelligence and proposals.

The members of the Community met periodically to seize the opportunity to discuss and brainstorm around key, relevant themes connected with the development of the extended water value chain in Italy and optimization of its development. During these sessions, the partner companies of the Community and external guests involved in the various meetings shared their experiences and expertise and the European House – Ambrosetti Working Group produced and developed specific research.

It should be noted that, again for the fifth 2023-2024 edition, and in continuity with previous years, The European House – Ambrosetti drew up an agreement with the Fondazione Utilitatis for a **scientific partnership** regarding the scope of Integrated Urban Water Management. Parallel with this, the Value of Water Community was a **contributing partner in preparing the 2024 Blue Book** which was presented together with the "Value of Water" Strategic Report. In fact, both documents were presented during the concluding event of the Community on March 21-22, 2024.

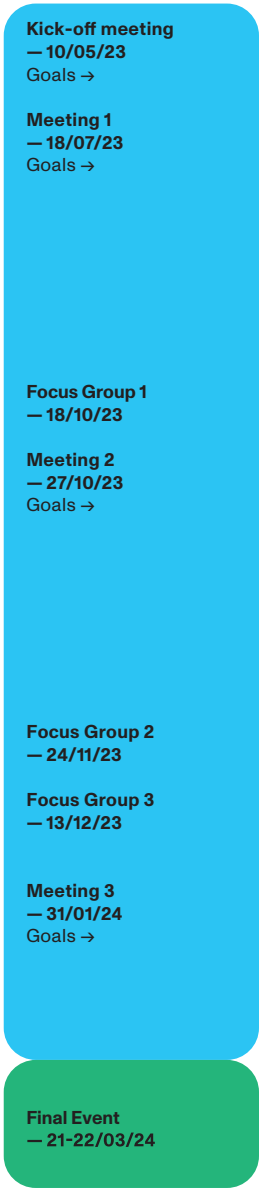
In addition, in April 2023—as proposed on several occasions by the Value of Water Community in its ten policy proposals for Italy—a **Water Crisis Steering Committee** was created, comprised of seven government ministries and Special Commissioner Nicola Dell'Acqua. The Community was selected as the **Official Observatory** and contributed to drafting the **Report** to be presented to the Steering Committee and Presidency of the Council of Ministers of Italy. The Report includes short-, medium- and long-term solutions in taking on the water and drought crisis.

For the third year, the **Focus Group** approach regarding vertical themes strategic to the optimization of the extended water value chain was confirmed. Specifically, for the fifth edition, **three** groups were created:

— **"Circular Water" Focus Group** (October 18, 2023 in Milan at the offices of The European House – Ambrosetti): the first Focus Group concentrated on water resource circularity for efficient management of the extended water value chain;
— **"Smart & Digital Water" Focus Group** (November 24, 2023 in Milan at the offices of The European House – Ambrosetti): the second Focus Group looked at the role of smart and digital technologies in improving the efficiency of the extended water value chain;
— **"Water Education" Focus Group** (December 13, 2023 in Milan at the MM Milan Water Plant, a Main Partner of the Community): the third Focus Group concentrated on the new awareness regarding water and the pilot project in Italian schools.

Taking part in the focus groups were representatives of partner companies of the Value of Water Community, guests from the Italian and international business community, experts and spokespeople for benchmark cases involving themes examined during the three meetings.

FIG II →
Activity of the fifth edition of the Value of Water Community of The European House – Ambrosetti



Kick-off meeting — 10/05/23 Goals →	→ Define goals, areas of focus and work agenda for 2023/2024
Meeting 1 — 18/07/23 Goals →	→ Confirm fifth year areas of activity → Present initial findings of the Value of Water Observatory regarding: — Climate change and impact of extreme weather events in Italy — Improving efficiency of the extended water cycle and the role of alternative sources of supply to combat water stress — Strategic water infrastructure and obstacles to its creation
Focus Group 1 — 18/10/23	→ Circular Water
Meeting 2 — 27/10/23 Goals →	→ Explore the current climate scenario and normative developments in the European Union, and the role of investment in supporting the water value chain → Analyze the role of sustainable finance and EU taxonomy in promoting the sustainable transition of the extended water value chain, and the challenges and obstacles to its implementation according to Italian Integrated Urban Water Management operators → Present the connections between the extended water value chain and the Blue Economy
Focus Group 2 — 24/11/23	→ Smart&Digital Water
Focus Group 3 — 13/12/23	→ A new water culture and pilot project in Italian schools
Meeting 3 — 31/01/24 Goals →	→ Present an update of the value of the extended water chain → Discuss sustainable management of Italian water resources within a European context with the presentation of the 2024 "Value of Water for Sustainable Development" index → Discuss the policy proposals for Italy and its economy → Share an update on the #ValoreAcqua communication campaign
Final Event — 21-22/03/24	→ Presentation of the **Value of Water** 2024 Strategic Report to the business community and government and Institutions

The European House – Ambrosetti data elaboration, 2024.

Specifically, the activity of the fifth edition of the Community focused on **five areas of work**:

- **Value of Water Observatory**, which involved the preparation of Facts & Figures regarding the reference scenario for water resources in the World, Europe and Italy; examination of the challenges for sustainable water use and territorial adaptation to climate change; survey of Italian public perception of the value of water and consumption practices; examination of the authorization processes regarding creation of water infrastructure; sharing of some thoughts on the circular transition of the water value chain; updating of the mapping of the extended water value chain in Italy with the addition of the value generated by direct management practices; examination of smart & digital technologies to improve supply chain efficiency; study of the opportunities offered by diversification of water supply sources (for example, desalination); updating of the analysis of the contribution of efficient and sustainable water resource management to the 17 Sustainable Development Goals of the United Nations 2030 Agenda;
- **international network**, with mapping of best practices on a global and European level and the involvement of representatives from other Countries and European Institutions;
- **10 action proposals for Italy** through intelligence-gathering on current barriers to the development of the extended water value chain, and preparation of proposals and concrete initiatives for Italy;
- **networking with Italian and European institutions** through broadening of relations with European, national, regional and local government and Institutions, and their involvement in Community activity;
- **#ValoreAcqua communications strategy**, with targeted activity on traditional channels (printed publications) and social networks; updating of the Community website; continuation of the pilot project in schools and presentation of the challenges and opportunities for the extended water supply chain during the Learning Week at TRED high schools (February 5, 2024); organization of training sessions for the press in collaboration with the Lombardy Association of Journalists; the concluding event to present the "Value of Water" 2024 Strategic Report (March 21-22, 2024); monitoring of world days connected to the theme of water and sustainability; involvement of the Value of Water for Italy Community in third-party events; and the publication of a Lettera Ambrosetti Club newsletter entirely dedicated to the theme of water.

FIG III →
Main areas of activity of the fifth edition of the Value of Water Community

→ 1	Value of Water Observatory →	— Analysis of the **main Facts & Figures** of the water sector reference scenario in Italy, Europe and the world — Updating and analysis of the mapping and reconstruction of the **extended water value chain** in Italy — Updating of the **Value of Water for Sustainable Development index**
→ 2	International network of the Community →	— Intelligence on policies and initiatives of **international benchmark cases** — Involvement of the embassies of benchmark Countries in Italy and **representatives of successful foreign cases** in the work process
→ 3	Proposals for the development of the extended water value chain →	— Intelligence regarding current **obstacles to the development** of the extended water value chain and relaunching of investment In Italy — Preparation of **proposals and specific action** for Italy and its economy
→ 4	Community network with government and institutions and external stakeholders →	— Broadening of relations with **national, regional and local government and Institutions** and their involvement in the Community's activity — Broadening of relations with **European Institutions** and their involvement in the Community's activity — Three **themed Focus Groups** to promote discussion and exchange of experiences and expertise (education) among supply chain stakeholders
→ 5	Communications strategy and visibility of #ValoreAcqua →	— Updating and expansion of the project **web page** — Strengthening of the **#ValoreAcqua communication strategy** in print media and social networks, monitoring of **World Days** dedicated to **social polling** — Involvement in **third-party events** and **education and consciousness-raising activities** — **Lettera Ambrosetti Club** — **Final #ValoreAcqua event** during **World Water Day**

The European House – Ambrosetti data elaboration, 2024.

Offered below is a summary of the main areas of work and activity undertaken by the Community during its fifth edition 2023-2024.

The network of the relations activated by the Value of Water Community with the nation's decision makers

As part of the approach based on sharing experiences and reflection on the issues involved, European and Italian representatives of the governmental, political and business spheres were invited to take part in Community meetings.

FIG IV →
Network of the Value of Water Community: partner companies, government and Institutions, and representatives of the public and private sector involved in the fifth edition of the Value of Water Community

The European House – Ambrosetti data elaboration, 2024.

International network of the Value of Water Community

In the fifth edition of the Value of Water Community, **research** was carried out on a range of levels involving the **main experiences connected** with the models, instruments and solutions utilized in other Countries in and outside Europe for the efficient and sustainable management of water resources, also thanks to the sharing of experiences of guests at Community meetings. Specifically, the fifth edition of the Value of Water Community benefited from enhanced involvement of **European Institutions**. As in the fourth edition, this year's second meeting on October 27, 2023 focused on the challenges and opportunities for the extended water value chain within Europe. Within this context, Aqua Publica Europea, the European Commission (DG Agriculture and Rural Development, DG Environment and the Joint Research Center), the European Investment Bank and the European Irrigation Association were involved.

THE VALUE OF WATER OBSERVATORY

Through the **Value of Water Observatory**, The European House – Ambrosetti Working Group continuously monitors the evolution in the scenario of the extended water value chain globally and in Europe and Italy.

During the fifth edition of the Value of Water Community, the Observatory prepared a number of **methodology and analysis tools** to monitor results in Italy compared with its main international competitors and to evaluate the contribution of water resources to the efficiency and sustainable development of Italy:

— **facts and figures** regarding the reference scenario globally and in Europe and Italy;
— **updating of the mapping of the extended water value chain** in Italy through the updating of a database containing multi-year economic data of all companies active in the extended water supply chain (agriculture, water-intensive manufacturing companies, energy sector, integrated urban water management, technology and software providers, and plant and equipment suppliers), for a total of 72 million observations and approximately 2 million companies, with analysis also extended to the value generated by direct management practices;
— updating of the **Sustainable Development Goals of the United Nations 2030 Agenda and the individual targets** affected by efficient and sustainable management of water resources, and analysis of the contribution of water resources to the individual goals selected;
— analysis of Italy's strong and weak points compared with other European countries, through a **ranking index of the country for each of the Sustainable Development Goals** affected and a cumulative summary index (**Value of Water for Sustainable Development Index**) as indicated for the development of action proposals for policy makers;
— examination of the opportunities offered by the **diversification of water supply sources**, such as desalination;
— analysis of the role of **sustainable finance and European Taxonomy** to promote sustainable transition of the extended water value chain, including through updating the specially-developed survey administered also thanks to the collaboration with Utilitalia and the Fondazione Utilitatis and operators in the water sector;
— research into the **authorization processes** required for creating water infrastructure and the barriers to promoting investment;
— updating the **survey of the Italian public** regarding the perception of the importance of water and consumption practices;
— **examination** of the perception of water as a resource by students involved in the pilot project;
— analysis of the **pillars of the circular transition** from the **smart & digital** standpoint of the water value chain.

THE #VALOREACQUA INTEGRATED COMMUNICATIONS CAMPAIGN OF THE VALUE OF WATER COMMUNITY

As a contribution to awareness of the benefits associated with efficient and sustainable management and responsible use of water resources, the Value of Water Community and its partners have created an **integrated communications strategy** based on the following tools:

— a dedicated **website**;
— a communications campaign on **traditional media**;
— a **social media** communication campaign;
— communication with **decision makers**.

The **dedicated web site** of the Value of Water Community has been updated (https://www.ambrosetti.eu/en/our-communities/community-valore-acqua-per-litalia/). The site contains a detailed description of the Community and its initiatives, including articles covering the Community and those in which it is cited. As in previous years, for the fifth edition of this initiative, a number of activities have continued. These include:

— recording of **podcasts** on the value of and challenges to the extended water value chain in Italy with leading figures of the Value of Water Community, such as top management from partner companies and institutional representatives involved in this field (https://open.spotify.com/show/6cHmoe1JlzA1gkcDn7huwY);
— monitoring of **world days connected to water resources** instituted by the United Nations;
— participation in **third-party events** to provide visibility for the content developed by the Value of Water Community.

In addition to continuation of communications activities on **social networks** (Twitter, Instagram, YouTube, Facebook and LinkedIn) using the **#ValoreAcqua** hashtag created the first year, for this fifth edition, the Community has had over 250 articles published in **traditional media outlets** (printed and online publications). Thanks to collaboration with the Association of Journalists, a **training day for the press** was organized to promote informed and aware communications.

For the first time in this fifth edition, the Water Community will be contributing to the *Harvard Business Review Italia*, the Italian edition of the *Harvard Business Review (HBR)*, a journal for business and management professionals first published in 1922 by the Harvard Business School[I]. Issues of *HBR Italia* are distributed in hardcopy and/or digital format to all the **15,000** top executives and Leaders of the Future enrolled in the exclusive platforms of The European House – Ambrosetti.

Finally, during the course of the 2024-2025 edition of the Value of Water Community, the **world days connected with the theme of water were monitored** and promoted through the social channels of The European House – Ambrosetti.

Another important development in the fifth edition was the continuation of a **pilot project with a selected group of schools** to promote a new water culture in Italy among the younger generation.

The results of the work of the fifth year of activity of the Value of Water Community are summarized in this **Strategic Report**, the goal of which—in the spirit of making a positive contribution to improve the nation and its economy—is to provide a detailed picture of Italy's position within an international context and to propose a number of lines of action to optimize the development of the country's extended water value chain.

The presentation and discussion of the findings and proposals of the Community—in

I ↓
Since 2006, Mr. Enrico Sassoon has been Editor-in-Chief of the journal and, starting in July 2023, *Harvard Business Review* Italia became part of The European House – Ambrosetti Group.

the **final event to present the Value of Water Strategic Report** (Thursday and Friday, March 21-22, 2024)—will provide the opportunity for further discussion among business leaders and representatives of government and Institutions, in the spirit of a team effort to develop initiatives that benefit the nation and its economy.
In addition, the findings and proposals developed during the fifth edition of the Community will be summarized in a **Lettera Ambrosetti Club** newsletter which will be sent to a select mailing list of 6,000 Italian decision makers.

MEMBERS OF THE VALUE OF WATER COMMUNITY AND OTHER INITIATIVE PARTICIPANTS

The Value of Water Community is composed of the following members:
Main Partners:

- A2A: **Renato Mazzoncini** (Chief Executive Officer), **Tullio Montagnoli** (Chief Executive Officer, A2A Ciclo Idrico), **Matteo Tassi** (Monitoring Development, Reporting and Environment Health and Safety Manager, A2A Ciclo Idrico), **Alberto Hrobat** (Customer and External Relations Manager, A2A Ciclo Idrico) and **Stefania Giacomelli** (Aqueduct Organizational Structure Manager);
- ACEA: **Fabrizio Palermo** (Chief Executive Officer), **Claudio Cosentino** (President, ACEA ATO 2), **Giovanni Papaleo** (Chief Operating Officer and Industrial Water Department Manager; Chairman, Areti and Acea Ambiente) and **Serena Petrucci** (Institutional Affairs Manager);
- ACQUEDOTTO PUGLIESE: **Domenico Laforgia** (Chairman), **Francesca Portincasa** (General Director), **Antonio Braccio** (Chief Financial Officer) e **Luigi De Caro** (Head of Institutional Relations, Regulation and Technical Secretariat of the Presidency) and **Vito Palumbo** (Communications Manager);
- HERA: **Orazio Iacono** (Chief Executive Officer), **Francesco Maffini** (Asset Management Manager, Water Manager) and **Alessandro Baroncini** (Water Supply Network Manager and Water Management Director);
- IREN: **Luca Dal Fabbro** (Executive President), **Alessandro Cecchi** (Regulatory Affairs Director) and **Francesco Castellone** (Head of Communications, External Relations & Public Affairs);
- MM: **Francesco Mascolo** (Chief Executive Officer), **Lorenzo Persi** (Head of Administration, Finance, Controlling and Regulation) and **Pietro Raitano** (External Relations and Events Manager);
- SMAT: **Paolo Romano** (Chairman) e **Armando Quazzo** (Chief Executive Officer).

Partners:

- ANBI – NATIONAL ASSOCIATION OF CONSORTIA FOR MANAGEMENT AND PRESERVATION OF LOCAL AREAS AND IRRIGATION WATER: **Francesco Vincenzi** (President), **Massimo Gargano** (Director General), **Caterina Truglia** (Vice Director), **Adriano Battilani** (Technical Staff Management) and **Daniela Santori** (Technical Staff Management);
- CVA – COMPAGNIA VALDOSTANA DELLE ACQUE: **Giuseppe Argirò** (Chief Executive Officer) and **Mara Ghidinelli** (External Relations and Sustainability Manager);
- DEUTSCHE BANK: **Roberto Parazzini** (Chief Country Officer Italy), **Luca Fachin** (Chief Operating Officer and ESG Manager), **Carlo Costa** (Regional Management/ Country COO Office – VP – Italy), **Filippo Manzi** (Chief Operating Office & ESG Team), **Alberto Fadelli** (Head of Chief Investment Office) and **Diego Mastromauro**

(Business Banking, Industry Coverage);
- ENGINEERING: **Umberto D'Angelo** (Market Growth, Energy & Utilities Director) and **Domenico Zagaria** (Sales Manager);
- EUROPROGETTI: **Silvano Storti** (Chief Executive Officer), **Pietro Pin** (Textile and Sustainability Consultant; Textile and Garment Commission President, Italian National Unification), **Rossana Suerz** (Process Engineer), **Luigi Federico D'Amico** (Project Engineer) e **Praveen Raj Vellakaratur** (Project Engineer);
- IMPRESA PIZZAROTTI & C. S.P.A.: **Riccardo Garrè** (Chief Executive Officer), **Daniele Cappellino** (Smart & Green/Facility Management Director), **Giacomo Bandinu** (Sales Manager), **Gianluca Di Rienzo** (Public Contracts Manager) e **Denise Po** (Innovation Director);
- IWS – INTEGRATED WATERCARE SOLUTIONS: **Franco Masenello** (Chief Executive Officer), **Massimiliano Evangelista** (Sales Director, 2f Water Venture Srl Società Benefit and B. M. Tecnologie Industriali SpA Società Benefit), **Nicola Negro** (Marketing Communications Manager) and **Alessandro Zurla** (Corporate Manager, B. M. Tecnologie Industriali SpA Società Benefit);
- FISIA ITALIMPIANTI – WEBUILD GROUP: **Paola Bertossi** (Chief Executive Officer), **Roberto Fiume** (Head of Business Development) and **Luca Aurelio** (Head of Bidding & Engineering);
- SCHNEIDER ELECTRIC: **Vittorio Panzeri** (Vice President, South Europe & East-North Africa), **Donato Pasquale** (Water Sector Manager) and **Martina Urbano** (HR Business Partner);
- SUEZ: **Massimiliano Bianco** (Chief Executive Officer), **Massimo Lamperti** (Chairman), **Mario Adamo** (Business Development Smart & Environmental Solutions), **Francesca Menabuoni** (Concessions Director; Chief Executive Officer, Nuove Acque) and **Cesare Boari** (Proposal Engineer);
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The 10 key messages of the 2024 White Paper

1↓

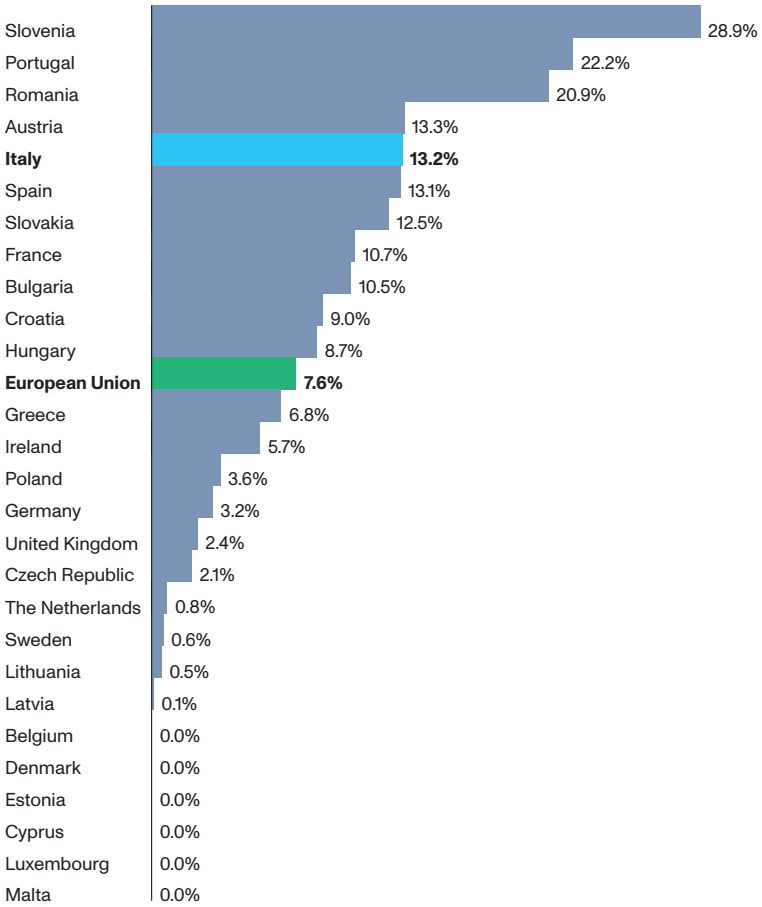
Global warming is changing atmospheric patterns and putting the world's water supplies under enormous stress. To meet this challenge, urgent action is required to mitigate and adapt to climate changes.

— **Water** is an essential element which, for thousands of years, has governed life on Earth and regulated its equilibrium. And yet, in recent decades, we are witnessing an **unprecedented change** in global climate with significant impacts on the planet's hydrologic cycle and water resources. **Extreme weather phenomena**, such as flooding and drought, are becoming more frequent and intense, with negative consequences for many areas of the World.

— The 2015 **Paris Agreement**, whose primary goal was to maintain the average global rise in temperature of the Earth's surface and the oceans to below 2°C compared with preindustrial levels by the end of the century, limiting the rise to **1.5°C**, is already considered utopian. **Global warming** is one of most perceptible consequences of climate change. So, it is no surprise that the average global temperature in **2023** was the **highest ever recorded: +0.6°C** above the 1991-2020 average and **+1.48°C** above the 1850-1900 preindustrial average.

— **Italy** is not immune to **climate change** and its impacts. The Italian peninsula is located in the heart of the Mediterranean Region which, due to its morphological features, has become warmer and will continue to warm faster than the global average. The country has been hard-hit by **drought** and is currently in **5th** place among the 27 European Countries and the United Kingdom in terms of the share of its land exposed to **severe/extreme drought** over the last two years, at a level of **13.2%**, 5.6 percentage points above the European average.

FIG V →
Share of land exposed to severe/extreme drought according to the 24-month Standardized Precipitation Index* in the European Union (%), 2021-2023



* Index which indicates the rarity of a drought episode (defined as the lack of precipitation) over a given time period, normally expressed in months, based on past data.

The European House – Ambrosetti elaboration based on Italian National Research Council (CNR) data, 2024.

— One of the sectors most affected by climate change is **agriculture**, a strategic supply chain for Made in Italy agrifood products famous throughout the world. The drought had a major impact on the land and crops that also resulted in significant economic loss. The impact on crops from drought, intense cold and floods in 2022 caused losses to farms of **€5.6 billion**, primarily in the cereal, vegetable, fruit and wine sectors. Again in 2023, the agricultural sector trend was strongly influenced by adverse economic factors which impacted on crops, resulting in a **-2.4%** drop in yield.

2 ↓
Analysis by the Value of Water Observatory shows that there are still a number of “gray areas” in water resource management in Italy

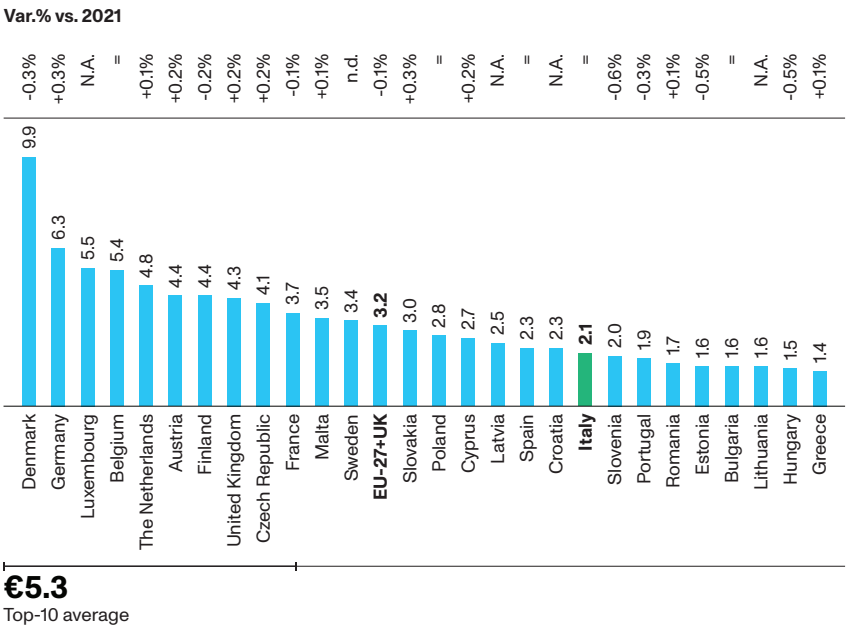
— Despite the situation of growing water stress the Country is facing, **Italy** is still one of the **most water-intensive Countries in Europe**, in **1st** place for consumption of bottled mineral water with **249 liters** per capita (159 liters more than the EU-27+UK average), and in **3rd** place for domestic consumption of drinking water with **62 m^3** annually per capita (compared with the European average of **45 m^3** annually per capita).

— Italian **water infrastructure** remains inefficient and obsolete, the result of high levels of water wastage. With **41%** of the water drawn leaked in the water distribution systems in 2021, and a total of **8,303.8 m^3/km** of linear losses annually, the Country is at the bottom of European water loss rankings.

— The Nation’s antiquated water infrastructure is also the result of **low levels of investment** in the Italian Integrated Urban Water Management (IUWM) sector. According to the **2024 Blue Book** — integrated into the “Value of Water” Strategic Report thanks to a scientific partnership created between The European House – Ambrosetti and Fondazione Utilitatis and Utilitalia — average per capita investment in the last five years by IUWM industrial operators in Italy was **€59 per inhabitant**, well below the EU-27+UK average of €82 per capita. In 2023, it is expected that the per capita amount in Italy will rise to **€70**.

— One of the main reasons for this still-low level of IUWM investment are the **low national water rates – 2.1 €/m^3** in 2022 — which puts Italy in **19th** place in EU-27+UK rankings, at a rate nearly five times lower than that of the top-ranked country, Denmark (€9.9/m^3).

FIG VI →
Integrated Urban Water Management rates in the EU-27+UK (€/m³ and % var. vs. 2021), 2022



The European House – Ambrosetti elaboration of Global Water Intelligence, ARERA and DANVA data, 2024.

— The **average size** of the companies involved is a further brake on investment. In Italy, the extended **water cycle** is still very **fragmented** and, for the most part, is comprised of small- and medium-sized enterprises (SMEs) which make only a small contribution to sector revenues. Specifically, **85.4%** are **small companies** that contribute only **16.8%** of revenues, **13.1%** are **medium companies** which contribute, however, **36.3%** of revenues, while **1.5%** are **large companies**, but which contribute nearly **half** of sector revenues.

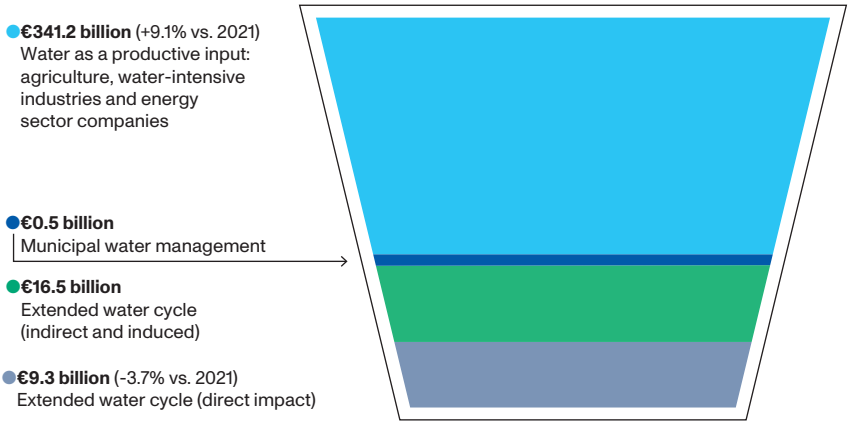
3 ↓
Underlying water management is an industrial and service supply chain that offers high Added Value and is very dynamic, providing significant multiplier effects and in which Italy has major expertise. Without water, a fifth of the nation's GDP could not be generated

— Water conservation is not only of primary importance for its social role, but also because water enables and activates a significant industrial and service supply chain. According to the Community's mapping, the **extended water value chain** involves **26 2-digit ATECO codes and 74 3-digit sub-codes**.
— Water is a primary productive input for **1.4 million** agricultural enterprises, approximately **330,000** water-intensive manufacturing companies and over **10,000** energy sector companies.
— In 2022, the extended water cycle generated **€9.3 billion** in Added Value, with an average annual growth rate of **3.8%** over the period 2010-2022, **double** the manufacturing rate (+1.6%) and Italian GDP (+2.0%) during the same time period. Since 2010, the aggregate has grown +55% and its overall size is comparable to other major sectors of Italian industry. The extended water cycle is **93%** that of the pharmaceutical sector, **1.2 times** that of the leather industry and **nearly double** that of beverages (including wine). Similarly, the aggregate has a major impact on employment, with **92,100** employees in 2022 and an annual growth rate of **+1.1%** since 2010 (four times the national average in terms of dynamism).
— In 2022, the ability of the extended water cycle to produce value was limited by the leap in **energy costs** which resulted in a **-3.7%** reduction in Added Value compared with the previous year, against a 9.6% rise in turnover.
— Water service operators have the support of major suppliers of input and technologies for the sector which complete the perimeter of the extended water cycle. Within this context, Italy has shown to possess a good level of technological expertise and a cutting-edge environmental research ecosystem. In fact, the Country is **3rd** in the EU-27+UK in the major areas within this field, with **1,497 citations** per year connected with the theme of water and **93 patent applications** for environmental technologies (including water).
— Extended water cycle activities are also supported by a broad-based and diversified supply chain comprised of numerous industrial companies and services in a range of sectors. The **direct, indirect and induced** impact of the sector totals an Added Value of **€16.5 billion** due to an economic multiplier effect of **2.8** which, overall, generates more than **150,000 jobs** (employment multiplier of **2.7**).
— To complete the picture of the extended water supply chain, an outline was made of the economic contribution generated by **municipal water management**, a type of water service management entrusted to municipalities directly which, in

2022, produced **€491 million** in Added Value, of which **61.5%** in the south of Italy and its islands.

— Taking together all the aspects mentioned above, in 2022, the extended water value chain generated a total Added Value of **€367.5 billion** — an **+8.7%** increase on the previous year. Therefore, without water resources, **19%** of Italian GDP could not have been generated (a contribution up +1 p.p. compared with 2021).

FIG VII →
Added Value generated by the extended water value chain in Italy, 2022



The European House – Ambrosetti elaboration of ISTAT, AIDA Bureau van Dijk and OpenBDAP data, and sector inter-dependence tables, 2024.

4 ↓

To analyze Italian water management within the broader European context, the Community updated the “Value of Water for Sustainable Development” composite index which monitors progress in the ten Sustainable Development Goals impacted by responsible and aware water management: Italy ranks 19th in the European Union

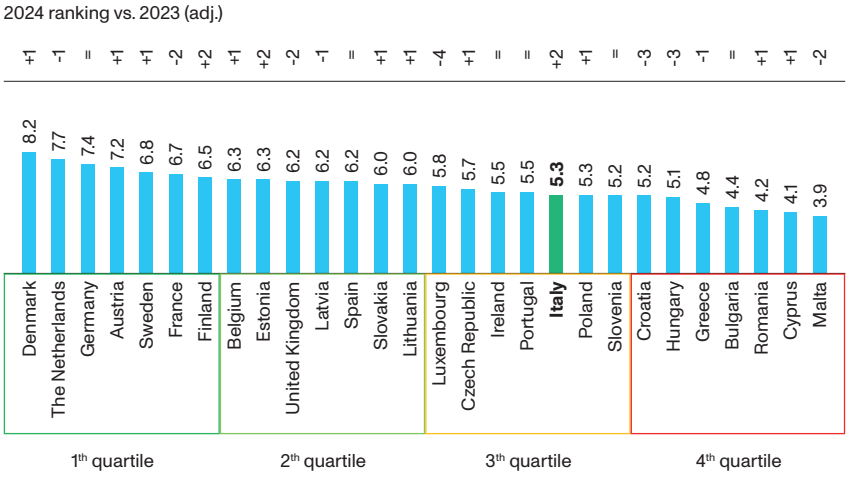
— Starting from the main strong and weak points of the water sector in Italy, the Value of Water for Italy Observatory created a **composite indicator** whose goal is to provide an **overview** of water management in Europe (27 Countries of the European Union plus the United Kingdom).

— To do this, the Observatory carried out an in-depth study including data collection, analysis and mapping to evaluate how **the efficient and sustainable management of water resources impacts on the 17 Sustainable Development Goals** (and related 169 targets) included in the 2030 Agenda of the United Nations.

— The analysis included identification of **10 of the 17 Sustainable Development Goals** and **53 of the 90 targets** that are directly impacted and influenced by efficient and sustainable water resource management. From this basis, **39 Key Performance Indicators** (KPIs) were identified that are objective and measurable over time and are based on the 10 selected Goals, to examine Italy’s strengths and weaknesses compared with the rest of Europe. For each of the selected Goals, a relative ranking index was created and their (equally-weighted) combination made it possible to define the final **“2024 Value of Water for Sustainable Development” composite index**.

— Italy **ranks 19th out of the 28 Countries** included in the “2024 Value of Water for Sustainable Development” index, with a score of **5.3** on a scale of 1 (minimum) to 10 (maximum), and showing an **improvement of two places** compared with last year.

FIG VIII →
"2024 Value of Water for Sustainable Development" (VWSD) index and variation in the ranking in the "2024 Value of Water for Sustainable Development" index vs. the adjusted "2023 Value of Water for Sustainable Development" index



The European House – Ambrosetti elaboration based on a number of sources, 2024.

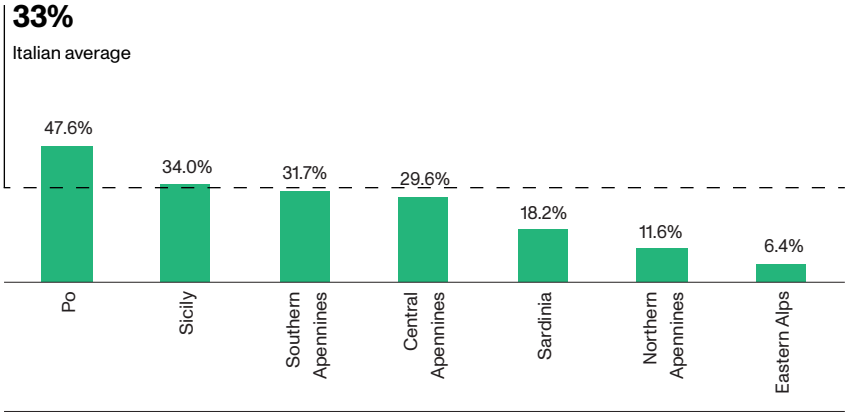
5 ↓
To respond to the growing pressure on water resources, promoting the circular transition of the supply chain following the “Circular Water” model is a priority

— Water is a strategic resource and is becoming increasingly scarce in Italy. For this reason, guaranteeing its long-term availability is key through promoting **water efficiency** in all phases of the value chain.

— From this standpoint, according to the view of the Community, transition to the “**Circular Water**” model, the circular approach to water resource management, requires:

— **collecting rainwater** as a resource for the periods of drought that are becoming increasingly frequent. However, to-date, **33%** of the capacity of major dams is not fully utilized due to siltation, a level which rises to 48% of the total for the Po River Basin Authority. In addition to the damage caused by silt is **1.9 billion m³** of additional capacity already present in the dam infrastructure system that has never been authorized;

FIG IX →
Level of siltation in major dams in Italy by Basin Authority (%), 2023



The European House – Ambrosetti elaboration of Basin Authority, MIT and ISPRA data, 2024.

— minimizing the **withdrawal of new resources** by utilizing an increasingly advanced wastewater **treatment** system. The water stress in the Country is also reflected in the fact that **19.0%** of underground bodies of water are in short supply, and **296** Italian municipalities still totally lack treatment services;

— promoting the water **reuse** when possible. Currently, only **4%** of wastewater is actually destined for reuse in agriculture, compared with a potential 21%, a practice that occurs almost exclusively in the North-West. According to Utilitalia

estimates, wastewater reuse could cover up to **45%** of Italy's irrigation needs, but currently, only **4.6%** of irrigated land utilizes treated wastewater;
— **diversifying water supply sources** by taking advantage of the **desalination** option, whose production capacity in Italy is **657,000 m³** a day (7.6% of the EU total). At the same time, revitalizing the use of wastewater **treatment sludge** by gradually reducing the **52.3%** share of the total managed that currently goes to landfill.

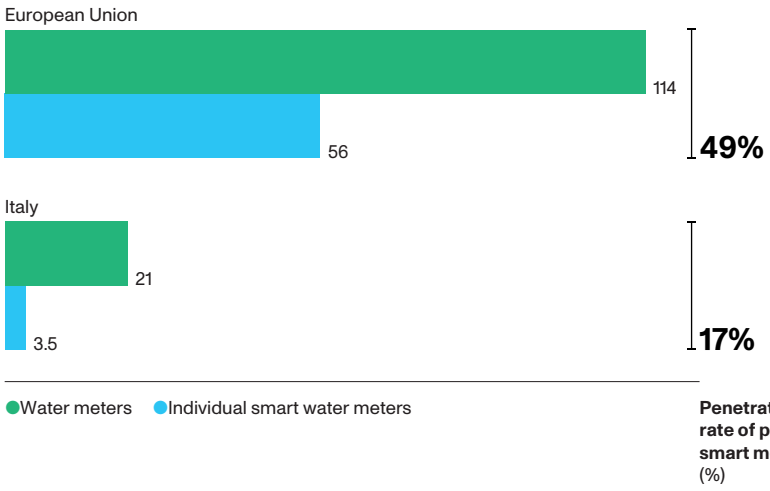
6 ↓
Efficiency and sustainability throughout the extended water supply chain is made possible by the “Smart&Digital Water” model that provides data and information in real time, and reduces the amount of water withdrawals, consumption and waste through technological efficiency and innovation

— Technology has the potential to be the enabling factor to promote the sustainable and circular transition of the extended water value chain through processes and products that control withdrawal and make the available infrastructure more efficient, including from the standpoint of energy use. From this perspective, the “**Smart&Digital Water**” model is the perfect complement for facing the challenges the sector has taken on.

— First of all, technological innovation makes the **value of data** a key aspect once again. Also because of its structural characteristics, the information available to the water sector is often limited and not up-to-date. Digitalization of the water value chain would facilitate gathering and monitoring of essential metrics and open the way to the publication of a **national water budget**, an indispensable informational tool on which to base local government programs and action on a multi-year scale.

— Data analysis programs, artificial intelligence, the metaverse, and GIS (Geographic Information System) and GPS technologies are just some examples of solutions that make it possible to boost water management efficiency, with special focus on the aqueduct system. Access to precise, detailed information also makes it possible to raise public awareness regarding **reducing water consumption. Smart meters** are the enabling technology for this monitoring, but their development in Italy is still limited. As of 2022, smart meters accounted for **17%** of the total private meters in use, nearly three times less than the European Union average of 49%.

FIG X →
Water meter and individual smart meter market in Italy and Europe (millions of meters), 2022 or latest year available



The European House – Ambrosetti elaboration of Maddalena, Omdia and MeteRSIT data, 2024.

— The benefits of technology also extend to improving plant and process **energy efficiency**. The reduction in energy consumption during sewer and treatment phases, among energy-intensive practices in the service sector, could reach **-30%** thanks to solutions such as smart lift, real-time monitoring and control systems, and smart mixing and aeration. In addition, replacing antiquated and high-energy consumption desalination plants with new-generation installations would result in energy savings of **1 GWh per day**.
— The agricultural sector could also benefit from the spread of digital solutions —known as **Agriculture 4.0** — that guarantees widespread optimization of production processes, while at the same time improving product quality. In Italy, the Agritech 4.0 market is worth €1.6 billion, with an annual growth rate of 74% over the period 2017-2021, but currently only 6% of agricultural land is cultivated using digital solutions. Among the various technologies in this sector, **drip irrigation** is the one most pertinent to efficient and sustainable use of water resources, making it possible to reduce water consumption by an estimated **-40% to -70%**.

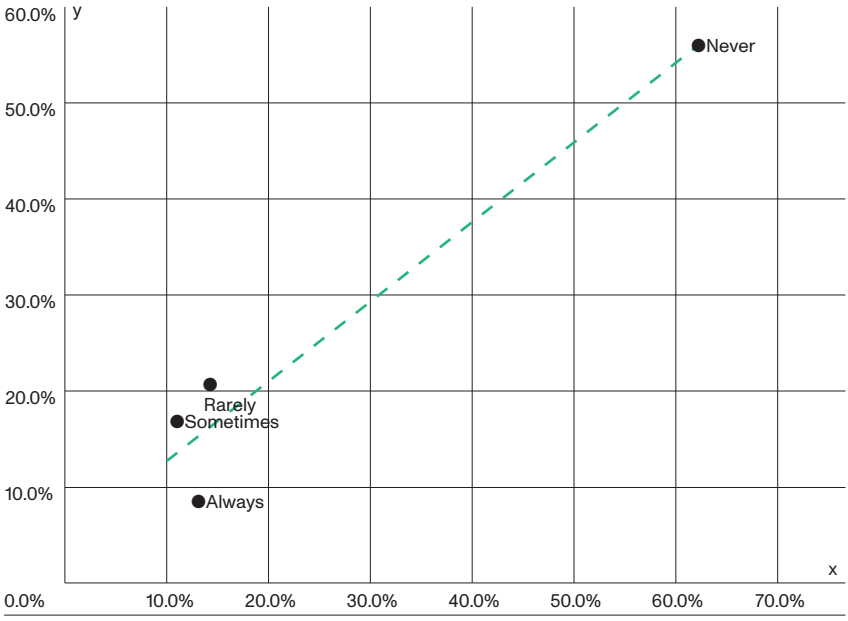
7 ↓
To foster efficient and sustainable water management, a new water culture must be promoted, starting with the younger generation. The Community is in the forefront in educating young people, with a pilot project in Italian schools that has involved 5,000 students throughout the Country

— Water withdrawal and consumption in Italy is especially high in comparison with the rest of Europe, making Italy one of the most water-intensive Countries in Europe. Also contributing to this is the **limited awareness** of the Italian public about the real value of water. This aspect is examined every year by the Value of Water Community in a questionnaire to a representative sample of the Italian population.
— In terms of perception about climate change, despite the extended drought crisis, only **4 Italians out of 10** are aware that rain in the last months of 2023 did not solve the Nation's water emergency and drought.
— Although Italian residents say they are increasingly attuned to the issue of **sustainability** regarding water, with **over 60%** of the sample saying they always take it into consideration in their own behavior, **nearly half** never or rarely drink **tap water**, a practice considered to be sustainable in the Community's outlook. **Concern about the lack of controls and safety** is at the top of the list of obstacles to drinking tap water, according to **40.3%** of respondents. On the other hand, for those who do drink it, safety becomes the **number 2** characteristic of attractiveness for 43.1% of respondents, indicating a net difference in perception among the public.
— From the survey results, there is a clear **discrepancy between perception of individuals of their water consumption and actual behavior**: **93.7%** are **unable** to quantify their daily consumption of water and — even once the actual amount is communicated — nearly **9 out of 10 respondents** believe they consume less or about the same as the average.
— Given these findings, the Community decided to take an **active role** in spreading information and good practices regarding water management, starting with **young people**. During 2023, a **pilot project** was carried out in Italian schools that involved **over 5,000 students**.
— Specifically, the pilot project called for the identification of a sampling of schools to be involved through discussion with the network of **27 TRED high schools** (Experimental High Schools for the Ecological and Digital Transition) and the **Associazione Nazionale Presidi** (National Association of School Principals), resulting in 7 schools located in southern and central Italy. Participating schools were provided with a "**Water Kit**" and explanation designed to share the knowledge developed by the Community about the water value chain and the importance of responsible and aware modes of behavior. The students took part in **two sur-**

veys, before and after the educational experience, to analyze the impact of the information they received from the Community about consumption habits.

— Among the main evidence that emerged, younger students were especially sensitive to **family habits** that have a significant influence on their daily behavior. There is, in fact, a close correlation between family tap water consumption and that of the young people. If the family always drinks tap water, then **over 60%** of the young people always drink it and only **11%** never do. Conversely, if the family does not drink tap water, **only 2%** of them do regularly and **over 85%** never do.

FIG XI →
Correlation between tap water consumption of students surveyed with their family's habits; Down: Table summarizing correlation data (%), December 2023.



x → Tap water consumption for students (%)

y → Tap water consumption for students' families (%)

→ Tap water consumption

→ Student ↓ Family	Always	Sometimes	Rarely	Never
Always	**60.2%**	25.3%	3.6%	**10.8%**
Sometimes	23,.9%	28.2%	17.8%	30.1%
Rarely	13.3%	11.7%	29.4%	45.6%
Never	**2.4%**	3.4%	8.6%	**85.6%**

Value of Water Community school survey, 2024

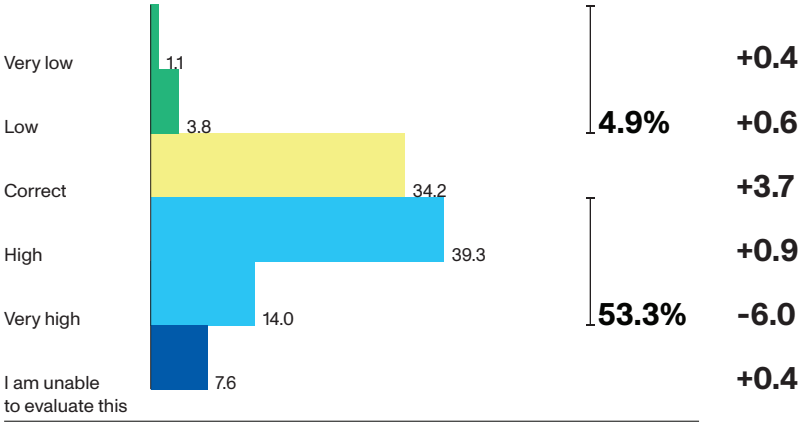
8↓
A fair water tariff could contribute to giving proper importance to water resources and related services, thus supporting investment growth and guaranteeing a more efficient infrastructure network

— Low water tariffs increase the risk of it being used less carefully, which threatens the future availability of a resource exposed to special and growing stress. Comparison of **water rates** in European Countries shows a wide **divergence**. The top ten nations have an average rate of **5.3 €/m³**, with **Denmark** at the top of the ranking (€9.9/m³). With a rate of **2.1 €/m³** in 2022, **Italy** ranks **19th**, at an amount nearly five times lower than Denmark's.

— Significant regional differences emerge when analyzing Italian **water rates by macro-area**. Compared with the annual national rate of 2.1 €/m³, the rate in **Central** Italy is **29%** higher (**2.7 €/m³**), in the **South and Islands 10%** higher (**2.3 €/m³**), while in the **North** it is **24%** lower (**1.6 €/m³**).

— Despite the fact that statistics show that Italian water rates are lower than European rates, in the survey of the Italian public carried out by The European House – Ambrosetti, it was found that the majority of Italians **over-estimate the actual amount of national water bills**. Specifically, **53.3%** of respondents indicated that the rate is "**high**" or "**very high**", **34.2%** believe it is "correct", while only **4.9%** think it is "low" or "very low". Results show that in 2023 **only 10%** of Italians were aware that the rate is less than 1 cent/liter.

FIG XII →
Response to the question: “What is your opinion of the current cost of your water bill?” (% total and % var. vs. 2022), 2023



Value of Water Community survey of the Italian public, December 2023.

— In Italy, approximately **80% of water sector investment** is financed by the water tariff. For this reason, applying a fair water tariff is essential to supporting investment in the sector. In analyzing the connection between the water tariff and investment level in EU-27+UK Countries, it is clear there is a positive correlation between the two factors: an **additional €1 in the water tariff** correlates to **€15 more in investment per capita**.

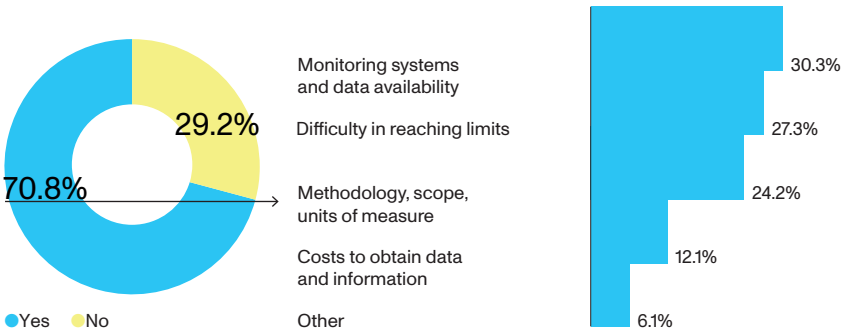
9↓
Public funding and Sustainable Finance have a key role in carrying out investment in the water sector. The National Recovery and Resilience Plan (NRRP) and European Taxonomy will offer a major contribution to sustainable water management in the coming years

- **Public funding** and **private financing** are key elements that can work together to promote the sustainable transition of the water sector by contributing to increasing the level of investment.
- On a national level, a major role is played by the **National Recovery and Resilience Plan**, a national reform "package" in which the extended water supply chain carries significant weight. The Value of Water Observatory has set at **€7.8 billion** the funds directly connected to initiatives related to more efficient and sustainable management of Italy's water resources.
- Yet, the Country is accumulating a number of **delays** in implementing the water sector reforms provided for in the Plan, especially regarding the awarding phases of all public contracts.
- Although the NRRP offers an unprecedented opportunity, Community estimates indicate that the funds **are not sufficient to bridge the current gaps**. To achieve the European average of per capita investment in the Integrated Urban Water Management sector, a **further €1.4 billion per year** is required (more than double the €580 million per year provided for in the NRRP), and to combat climate change and for the resilience of irrigated agricultural ecosystems, nearly a **further €1 billion** would be required (compared with the €630 million planned).
- Within a context of limited public resources, **Sustainable Finance** has the potential to adequately stimulate economic growth in some sectors by focusing on generating medium-/long-term value. **Sustainable management of water resources** is becoming ever-more important within responsible investment criteria. Compared with 2021, this aspect has risen two places in the ranking of the top-ten sustainable bond issues uses in the World, now ranked **8th**, for a total of **$42.5 billion**.
- With the goal of supporting growth that is truly in-line with the provisions contained in the United Nation SDGs, the European Commission has developed a clear definition of what kinds of investment can be defined as sustainable and these are outlined in the **European Taxonomy for Sustainable Finance**.
- The Value of Water Community examined the **perception of Italian Integrated Urban Water Management operators of the EU Taxonomy** in a survey of Community partners and companies associated with Utilitalia.
- Operators noted **problem areas in verifying conformity with the technical criteria defined by the Taxonomy**. For example, in reference to construction, expansion and functioning of water and waste water collection, treatment and delivery systems, **70%** of responding companies had encountered problems in

verifying conformity with **energy efficiency** criteria of networks and installations. Despite the difficulties encountered, over half of the companies (**58.3%**) expect they will conform with these criteria **by 2030** as a result of new investment.

FIG XIII →
Left: Response to the question: “For the construction, expansion and operation of water and waste water collection, treatment and delivery systems, have you encountered problems in verifying conformity with technical screening criteria regarding energy efficiency of the networks and facilities?” (% total), 2023. Right: Response to the question: “In terms of what?” (% total), 2023

Value of Water Community survey of Italian Integrated Urban Water Management operators, October 2023.



— Also regarding construction, expansion and renewal of water collection, treatment and delivery systems, **75%** of respondents reported difficulties in conforming to technical criteria involving **reduction of water leakage** along the network. Within this context, **only 12.5%** of the companies involved has already satisfied these criteria, while approximately **half** expect to do so **by 2030** thanks to specific investment initiatives.

10↓
The fifth edition of the Value of Water Community has updated the “Agenda for Italy” with ten specific proposals for action to promote the development of the value chain and provide incentive towards efficient and sustainable water management

— The findings of the fifth edition of the Value of Water Community underscore the importance of developing a **national, system-wide approach** that can take on the obstacles and exploit the impetuses that promote the development of the extended water supply chain and its efficient and sustainable management. This approach should integrate the contribution of all players involved in this extended and complex value chain.
— In the first four editions, the Community responded to this need with a **series of ten proposals and actions for Italy and its economy**. In continuity with the activity of the four previous years, for the fifth edition, this series of proposals for the nation was renewed, updated and expanded while also monitoring the recommendations of the previous editions which were **actually implemented in the Country**.
— In all the proposals, the **government has a key and proactive role** in terms of initiative leadership and of coordination and balancing of the requests of the various stakeholders, starting with the players in the extended water value chain in Italy.

FIG XIV →
10 Policy Proposals of the fifth edition of the Value of Water Community

1 → **Develop a challenging vision for more sustainable nation and water value chain**

2 → Create the conditions to enable growth in investment and consolidation of the sector

3 → Take advantage of public and private financing opportunities

4 → Adjust tariffs and give financial support to raise awareness about correct water use

5 → Update infrastructure to increment storage and water circularity (Circular Water)

6 → Digitalize the extended supply chain (Smart&Digital Water)

7 → Increase efficiency of data collection and management throughout the extended water supply chain

8 → Align incentives for responsible withdrawal and usage of all water applications and promotion of ecosystemic services

9 → Provide communication, education and training regarding correct water resource management

10 → Reinforce public/private collaboration and integrate coordination among the various stakeholders

The European House – Ambrosetti data elaboration, 2024.