



**UTILITALIA**  
water environment energy

# **Utilitalia is the Federation which brings together**

**450 utilities** operating

in the Water, Environment,  
Electricity and Gas sectors.

It represents them within national  
and European institutions.

**Presidency and Directorate General**

Email [presidenza@utilitalia.it](mailto:presidenza@utilitalia.it)  
[direzionegenerale@utilitalia.it](mailto:direzionegenerale@utilitalia.it)

Pec [utilitalia@pec.it](mailto:utilitalia@pec.it)

Tel. 06 945282.10

**Its historical heritage of experience and expertise dates back to the early 20<sup>th</sup> century with the creation of the Federation of Italian municipal utilities.**

Utilitalia is the name chosen in 2015 following the merger between Federutility and Federambiente.

It joins different entities including joint stock companies, consortia, municipalities, special companies and other bodies managing public utilities in the water, energy, environment and gas sectors.

Together with ASSTRA, the association of local public transport managers, Utilitalia constitutes CONFSEVIZI (the National Confederation for the representation and protection of the entities operating in the services of general economic interest).

Utilitalia is signatory of the National Collective Agreements in the Gas and Water, Environment and Electricity sectors.

## Partners

**Utilitalia represents Italy within a number of industry-wide European and international organizations.**

**CEDEC** The European Federation of Local Energy Companies

**CEEP** The European Centre of Employers and Enterprises providing Public Services

**CEWEP** The Confederation of European Waste-to-Energy Plants

**EUREAU** The European Federation of National Water Services

**EURELECTRIC** The Union of the Electricity Industry

**ISWA** The International Solid Waste Association

**IWA** The International Water Association

**MWE** Municipal Waste Europe

**UIG** The International Gas Union.

It is a member of the Utilitatis Foundation and of the Rubes Triva Foundation. It also owns two Supplementary Pension Funds, namely Pegaso and PreviAmbiente.

It is a member of **FONSERVIZI**, the Joint National Interprofessional Fund for Continuous Training in Industrial Public Services.

It is a subscriber to the Fasda Complementary Health Fund.

## Goals

**The mission of the companies affiliated to Utilitalia is to guarantee efficient, accessible and affordable services to citizens, by ensuring the protection and enhancement of environmental resources and providing a contribution to the modernization of the country.**

Innovation, energy efficiency, social and environmental responsibility and corporate organization are the mainstays of the projects (many of which included in the first census survey of public services, namely "Utili all'Italia" - Useful for Italy) through which the goals are achieved.

The industrial development of these sectors has significant employment impact on both highly-skilled professionals (chemists, biologists, engineers, computer scientists, IT experts, etc. ...) and on the operational staff (ranging from specialized plant technicians to the local maintenance teams).

Public services are a priority for designing the regions and cities of the future.

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Total staff

96,946

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Environmental sector

45,104

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Water and gas sector

39,077

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Energy sector

12,765

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Share of the population served by the companies affiliated to Utilitalia

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Water sector

80%

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Environmental sector

55%

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Gas sector

30%

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Energy sector

15%

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Production value

40 billion euros

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Profit

1,3 billion euros

Water

**Utilitalia** represents almost all  
water utilities in Italy

**Water sector**

Email: [acqua@utilitalia.it](mailto:acqua@utilitalia.it)

Tel. 06 945282.30

# The Integrated Water Service

**Utilitalia joins the entities operating in the whole water supply chain, ranging from waterworks to purification: collection, delivery, water purification for drinking purposes, distribution, drainage and sewerage, wastewater collection and treatment. It joins organizations and structures that plan and design the local water systems.**

Recently the water sector has evolved significantly, but some issues are still unresolved.

Utilitalia's priorities are the following:

- Clear definition of governance
- Investment for reducing leakages and for new plants

## Collection

Water can be collected from springs, groundwater or surface water

## Purification also for drinking purposes

Water treatment to make water suitable for drinking

## Breakdown of the national population by type of water utility

Source: Blue Book 2017 data processed by Utilitatis

Public utility (100%)

**53**%

Joint enterprise with public majority / control

**32**%

Local authorities' direct management

**12**%

Società mista a maggioranza/controllo privato

**1**%

Joint enterprise with private majority / control

**2**%

**Public shareholding**

**98**%

## SUPPLY SOURCES

Groundwater

**84.3**%

Surface water (watercourses, lakes and artificial reservoirs)

**15.6**%

Sea / brackish water

**0,1**%

BILLION CUBIC METERS OF DRINKING WATER

**9,4**

WATERWORKS

**425,000** km

Overall length (including connections)



## REQUIREMENTS



The daily per capita consumption of drinking water in Italy

**245** liter

## SPENDING



The household's average monthly spending for the supply of water for domestic purposes

**14,6** euros

- Increase of infrastructure resilience
  - Funding of investment plans
  - Enforcement of the EU Water Directives
- The Federation supports its own members with sector studies and analyses, advice and assistance on tariff aspects and on the accounting

unbundling, as well as on the regulation and quality of the service. It assists companies in regulatory aspects and in the scientific updating related to water resources.

### Transport

It takes place through the network of waterworks and pipes in which water flows, which are usually made of cast iron, steel or concrete

### Distribution

When the water is supplied to the houses for the various daily uses

### Drainage and sewerage

Piping designed to collect wastewater resulting from human or economic activities to deliver it to purification plants

### Purification

It has the function of returning to the environment water in good conditions, so that it can be reused

### PROBLEMATIC ASPECTS

Network laid over 30 years ago

**60** %

Network laid over 50 years ago

**25** %

### NETWORK LEAKAGES

Leakages

**42** %

42 liters of water every 100 liters leak in the pipes

Breakdown by geographical areas

**32** % North of Italy  
**49** % Center of Italy  
**51** % South of Italy

### RENEWAL OF THE NETWORK

Time needed to replace the whole network, at the current pace of 3.8 km per month

**250** years

### WATER USES

Irrigation

**51** %

Industrial uses

**21** %

Civil uses

**20** %

Energy

**5** %

Animal husbandry

**3** %

### WASTEWATER PURIFICATION

Italian population for which the purification service is not available yet

**12** %

**40** billion

cubic meters of wastewater treated every year in Europe

**233** million

cubic meters of wastewater treated every year in Italy

**3**

disputes with Europe (two convictions and an infringement procedure)

## Economy

### INVESTMENT IN THE WATER SECTOR

National average values, denominated in euros per inhabitant per year

Denmark

**160**

United Kingdom

**140**

France

**100**

Germany

**85**

Italy

**44**

### WORLD RATES AND TARIFFS

Per cubic meter, in dollars

Berlin

**7,01**

Oslo

**5,05**

Paris

**4**

London

**3,05**

Rome

**1,09**

### REQUIREMENTS TO BRIDGE THE GAP

**5**

billion euros per year:

- **1** to recover the infrastructure gap in terms of urban wastewater purification
- **2.5/3.5** for works and extraordinary maintenance
- **1** for achieving good environmental conditions of surface water bodies

Environment

**Utilitalia** represents and brings together companies and consortia managing waste disposal and environmental remediation services

**Environmental sector**  
Email: [ambiente@utilitalia.it](mailto:ambiente@utilitalia.it)  
Tel. 06 945282.90

# Environmental services

**Utilitalia's members are committed to managing integrated cycle of the urban waste in every phase: ranging from collection to treatment, matter and energy recovery, disposal of the residual fraction.**

With a view to achieving transition to the circular economy, Utilitalia supports:

- waste prevention and extended producer responsibility
- separate waste collection (aimed at actual recycling)
- the so-called "tariffa corrispettiva", a rate rewarding virtuous behaviours in separate waste collection
- recovery facilities and waste disposal minimization
- industrial management and regulation.

Utilitalia's Environmental Sector conducts studies and research into the urban waste management cycle for its affiliated companies and assists them by providing advice on regulatory, technical and economic and scientific matters.

Utilitalia's affiliated companies provide environmental services to

**55** %

of the population

## Waste as circular economy resources

**In a fully-fledged circular economy proper waste management plays a fundamental role because it ensures control and environmental protection. At the same it avoids (material and energy) resources being wasted so that they can be channelled again into the production and consumption cycles.**

## The hierarchy of waste management priorities

Prevention

Preparation for reuse

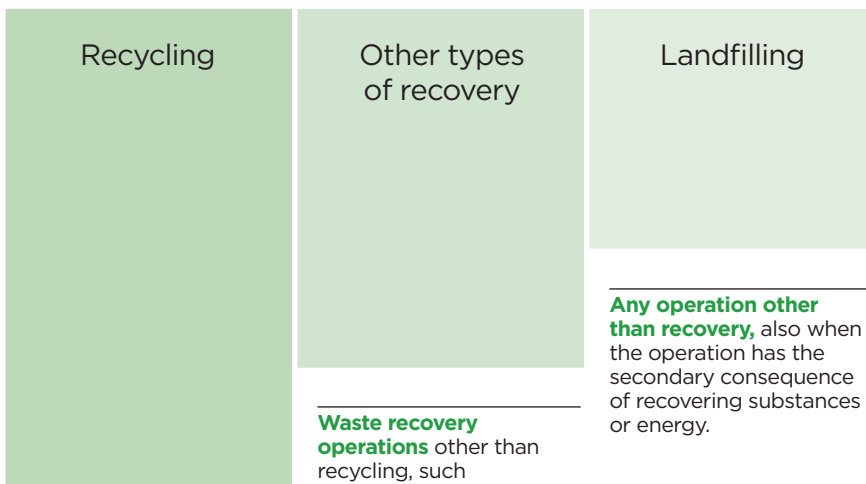
**Operations (such as control, cleaning, disassembly and repair)** through which waste products or components are prepared so that they can be reused without any other pre-treatment.

### Measures taken upstream

of waste production and aimed at reducing the quantity of waste, its negative impact on the environment and human health, as well as the content of dangerous and noxious substances in materials and products.

## THE INTEGRATED WASTE CYCLE

The adaptation of the **integrated urban and similar waste management service** is carried out by the so-called “**Autorità d’Ambito**” (District Authority) or, where not yet established, by the **Municipalities** both individually and collectively. The methods for choosing the manager are the public tender competitive procedure; the so-called “gara a doppio oggetto” (the tender for identifying the private partner and for the provision of the service) or the in-house providing (i.e. the award of the contract to public utilities fully controlled by the local authorities). The so-called “svolgimento del servizio in economia” - i.e. the direct management of a service within the local authorities’ administrative structure - is now a residual procedure.



**Waste recovery operations** designed to obtain products, materials or substances which can be used for both their original function and for other purposes (not including energy recovery).

**Waste recovery operations** other than recycling, such as energy recovery, the regeneration of solvents, acids, oils, etc.

## Urban waste production

Italy\* per capita

**500**

kilos per year

EU per capita average

**482**

kilos per year

## Waste management

ITALY

Recycling

**30%**

Incineration and co-incineration

**19%**

Landfilling

**22%**

Composting + anaerobic digestion

**21%**

Other types of waste management

**10%**

UE

Recycling

**25%**

Incineration

**18%**

Landfilling

**22%**

Composting + anaerobic digestion

**17%**

\* Source: Ispra, 2017 Urban Waste Report

## Separate waste collection in Italy

**58,1%**

North of Italy

**67,7%**

Centre of Italy

**54,1%**

South of Italy

**46,1%**

# Environmental services

## Strengths and weaknesses

### WEAKNESSES

#### REGULATORY ASPECTS

Complexity and heterogeneity of rules which do not facilitate their intelligibility or their uniform implementation.

#### GOVERNANCE

Heterogeneous, inconsistent and embedded governance system which hampers the industrial growth of the sector.

#### INSTALLATIONS

The significant lack of waste recovery installations makes it difficult and expensive to close the cycle.

#### SOCIAL ACCEPTANCE

Citizens' difficulty in accepting installations and facilities that is unmatched in other European countries.

#### FUNDING SYSTEM

Lack of a system capable of relating the costs charged to citizens to the virtuosity of their behaviours.

#### INVESTMENT NEEDED

The estimated investment requirements are at least 4 billion euros.

### STRENGTHS

#### SEPARATE WASTE COLLECTION

The national average increased by 15% in the 2011-2016 period. Also landfilling is decreasing gradually.

#### PACKAGING AND ORGANIC WASTE

Italy can boast excellent performances.

#### RECYCLING INDUSTRY

An important part of waste management and of Italy's industrial and economic system.

## Structure and Management

		Companies	Turnover	Employees
<b>Structure</b>	Public	45%	37%	43%
	Majority Public Shareholding	17%	30%	22%
	Majority Private Shareholding	3%	4%	3%
	Private	34%	29%	32%
<b>Management</b>	Only collection or integrated cycle	73%	73%	89%
	Treatment plants	27%	27%	11%

## Sector data



## Typology and turnover

	Companies	Turnover	Employees
<b>Typology</b>			
Monotility	74,6%	79,9,7 % billion €	79,71.372 % Employees
Multiutility	25,4%	21,2,5 % billion €	21,19.061 % Employees
<b>Turnover</b>			
Top (> 100 mln €)	3,5%	37,4,5 % billion €	36,4,32.917 % Employees
Large (50 - 100 mln €)	5%	16,1,9 % billion €	12,10.818 % Employees
Medium - large (25-50 mln €)	11,3%	18,2,2 % billion €	19,2,17.389 % Employees
Medium (10 - 25 mln €)	25,4%	19,2,3 % billion €	20,2,18.242 % Employees
Small (< 10 mln €)	54,8%	10,1,3 % billion €	12,2,11.066 % Employees

## Investments

**INVESTMENTS MADE IN THE PERIOD 2012 TO 2017**  
Operators' sample representing 28% of the population

**1,4** billion euros

Investments in collection  
**46,5%**

Investments in plants  
**53,5%**

**PLANNED INVESTMENTS FOR THE PERIOD 2018 TO 2021**

Operators' sample representing 26% of the population

**1,3** billion euros

**Investments made**  
2014-2017

**14**  
€/inhabitant/year

**Planned investments**  
2018-2021

**22**  
€/inhabitant/year

- Increasing investments:**
- Low environmental impact vehicles for collections
  - Street sweeping and urban decorum
  - Research, innovation and 4.0 technologies
  - New anaerobic digestion, composting and MBT plants
  - Investments in extraordinary maintenance and retrofitting of energy recovery plants

**INVESTMENT NEEDS**  
Estimations by Utilitalia

**4**  
billion euros

Collection (to reach 65% SC and implementation of "pay-as-you-throw" scheme)

**1,1**

Treatment of the organic fraction (new plants)

**1**

Matter and energy recovery from unsorted waste (new plants)

**1,8**

Energy



**Utilitalia** represents the energy, electricity and gas utilities operating throughout the supply chain

**Energy Sector**

Email: [reti.energia@utilitalia.it](mailto:reti.energia@utilitalia.it)

Tel. 06 945282.40

# Energy services

**Utilitalia joins the energy, electricity and gas utilities operating throughout the supply chain, ranging from production / supply, to distribution and sale, with specific attention paid to innovative sectors (such as district heating, sustainable mobility, renewables, fiber optics and cybersecurity).**

Utilitalia thinks that an "integrated" approach between energy and environmental policies is needed, thus also pursuing the decarbonisation targets envisaged by the European Package of measures, known as Clean Energy for All Europeans, in accordance with the National Energy Strategy. The central themes for Utilitalia's members are the following:

- Renewables and market
- Smart grids and networks
- Energy efficiency as a first priority
- A new energy paradigm for cities
- Consumers' centrality
- Energy cost
- Safe energy

The Energy Sector provides to its members the opportunity of holding a dialogue with the institutions and bodies responsible for technical standards in the energy sector, by providing operational advice and position papers on various technical issues, as well as promoting the adoption of strategies and technologies focused on energy efficiency and innovation.

## Energy supply chains



### THE ELECTRIC SYSTEM

#### Production

Thermic

**66,5**%

Water

**17,04**%

Photovoltaic energy

**7,8**%

Wind energy

**6,1**%

Geothermal energy

**2,1**%

Imports

**14,7**%

#### Transport

The high-voltage power lines connecting the power generation system and the system of distribution to end users. There are 73,000 kilometers of electricity transmission lines; the Terna group owns 72,844 kilometers of networks, i.e. 99.7%.

#### Delivery

It is the activity for managing energy flows on the network, carried out by Terna. It is fundamental for ensuring the continuity and safety of the service supplied. This activity is essential because electricity cannot be stored – hence supply and demand must always coincide.

#### Distribution

**135**

electricity distribution companies which manage a network of:  
865,521 kilometers of low-voltage power lines  
391,272 kilometers of medium-voltage power lines  
1,050 kilometers of high-voltage power lines

**74**%

Italy's dependence on foreign countries in the total energy mix



## THE GAS SYSTEM

### Importazione

Russia

**41.5** %

Algeria

**29.2** %

Qatar

**8.8** %

Libya

**7.4** %

EU

**5** %

Other countries

**8.1** %

### Transport

Gas is transported through a network of high-pressure gas pipelines serving a large part of the national territory; the regional network adds to the primary network. The whole network consists of 34,879 kilometers. Snam owns 93.2% of it.

### Storage

In Italy there are 9 storage fields: they offset consumption variations by remodulating prices and intervene strategically in case of supply problems.

### Distribution

**220**

220 gas distribution companies managing a network of 1,739 kilometers.

## Total energy mix

Oil products

**41,8** %

Renewables

**7** %

EE imports

**19,8** %

Gas

**29,7** %

Solid fuels

**1,7** %

## Sale

Technical and commercial structures reporting to the various entities operating on the free market and under protection schemes. They ensure energy supply to users, as well as compliance with the contractual terms and conditions applied, by also providing for customer care activities.

POD

**36,758**

Domestic

**29,453**

Non-domestic

**7,305**

## Electricity and gas distribution

e-distribuzione

**85** %

Italgas

**23.8** %

PDR

**23,572**

Domestic

**21,096**

Non-domestic

**2,476**

## National electricity production

Enel

**19,4** %

Eni

**9,2** %

Edison

**7** %

A2A

**6,2** %

Engie

**2,3** %

Iren

**2,9** %

Erg

**2,1** %

Altri

**34,2** %

Tirreno Power

**2,1** %

Sorgenia

**2,0** %

Saras

**1,6** %

Axpo Group

**1,6** %

Alperia

**1,2** %

C.V.A.

**0,9** %

Lukoil

**1,1** %

Hydro Dolomiti Energia

**1,1** %

# Energy services

## Sale of electricity and gas



Enel  
**35.3** %

Edison  
**4.7** %

Eni  
**4.2** %

Hera  
**3.6** %

Centria  
**3.1** %

Acea  
**2.8** %

A2A  
**2.5** %

Eon  
**2.5** %

Other companies  
**41.3** %



Eni  
**21.4** %

Edison  
**14.5** %

Enel  
**11.5** %

Iren  
**4.3** %

Hera  
**3.5** %

Engie  
**3.3** %

Eph  
**2.6** %

A2A  
**2.4** %

Ascopiave  
**1.4** %

Estra  
**1.4** %

Dolomiti energia  
**0.8** %

Other companies  
**32.9** %

## System charges

They include the amounts invoiced for covering the costs relating to activities of general interest for the system, which are paid by all end customers through the electricity and gas bills. With specific reference to the electricity sector, they are used to finance the costs for providing incentives to renewables.



**535\*** €



**1,044\*** €

Average spending until December 31, 2017  
(Source: ARERA estimate for a standard household)

## GSE spending for providing incentives to the electricity produced from renewables in 2019



Solar energy

**51,5**

Wind energy

**11,3**

Hydraulic energy

**8**

Biogas

**14,5**

Biomass and waste

**5,2**

Bioliquids

**5,8** %

Similar sources

**3**

District heating

**0,1**

Geothermal energy

**0,7**

BILLION EUROS

**16**

## Strengths

### ENERGY EFFICIENCY RESULTS

#### Efficiency interventions by sector

Domestic  
**58**%

Industry  
**25.5**%

Transport  
**13.5**%

Services  
**3**%

The white certificates have been the main instrument for promoting energy efficiency with 50% of the total national savings. Furthermore, in 2016 only, they mobilized approximately 1,000 million euro of investment and created about 12,000 jobs.

#### Consumption by sector

Domestic  
**21,5**%

Industry  
**41,7**%

Transport  
**3,8**%

Services  
**31,1**%

Agriculture  
**1,9**%

### The benefits of investment in renewables and energy efficiency

#### ENERGY

Renewables promoted through incentives

**81** TWh

Saved **15** fossil Mtoe

"Fossil-free" equivalent **7** million households

#### ENVIRONMENT

Greenhouse gas emissions avoided

**44** Mton CO<sub>2</sub>

Forest absorption equivalent **2.2** billion trees

CO<sub>2</sub> emissions equivalent **22** billion cars

#### ECONOMY

Incentives managed by the GSE

**16** billion euros

Saved **1** % of GDP

**39,000** Direct and indirect employees

### RENEWABLES RESULTS

#### Share of final electric consumption covered by renewables



2020 target

**26.4**%

Already largely exceeded

**34**%

#### Share of gas consumption covered by renewables



2020 target

**17.1**%

Already largely exceeded

**18.7**%



GOAL OF THE 2030 NATIONAL ENERGY STRATEGY (SEN)

Investment foreseen in the distribution networks until 2030 Over

**28** billion euros

# Departments

## Employment and Industrial Relations

**Utilitalia is a point of reference for national collective agreements and relations with trade unions.**

The Gas-Water National Collective Agreement, which Utilitalia signs together with Confindustria's industry-wide organizations, applies to over 45,000 workers, 37,437 of whom are employees of its affiliated companies.

It is also signatory of the Electricity National Collective Agreement, which applies to approximately 12,478 employees of its affiliated companies.

The same holds true for the Environmental Services National Collective Agreement, which applies to 44,495 employees of its affiliated companies.

The Employment and Industrial Relations Department deals with national collective bargaining with the industry-wide union organizations. It supports the affiliated companies in the protection and representation of their interests within institutions on labour law and union issues, as well as in the implementation of the National Collective Agreement and other national agreements.

It provides information and advice on labour law and occupational safety issues.

**Employment and Industrial Relations Department**  
Email: [lavoro@utilitalia.it](mailto:lavoro@utilitalia.it)  
Tel. 06 945282.60

## Regulatory issues

**This Department provides a cross-sectoral organizational and support forum on the issues relating to the regulation of infrastructure and markets entrusted to ARERA (the Regulatory Authority for Energy Networks and the Environment).**

It is responsible for monitoring, evaluating and analysing the evolution of economic and tariff regulatory aspects, as well as the technical and commercial quality of the regulated services in the electricity, gas, water and environmental service sectors.

The Department's activity allows to coordinate its members' positions, thus driving the change processes promoted by sectoral regulation and assessing their impact on the association system, as well as strengthening Utilitalia's role of representation vis-à-vis national and EU stakeholders.

**Regulatory Issues Department**  
Email: [regolatorio@utilitalia.it](mailto:regolatorio@utilitalia.it)  
Tel. 06 945282.50

## **Legal, Legislative and Tax Issues**

**This Department carefully monitors the regulatory changes and case law in the field of for-profit local public services, by providing the necessary support to solve interpretation and implementation problems.**

It actively follows the secondary regulations and delegated legislation enacted by major institutions (the Tax Revenue Agency, the National Anti-Corruption Authority (ANAC), the Ministry for Economy and Finance, etc.), by also participating in the consultation procedures initiated by them, with a view to representing its affiliated companies and giving a voice to their needs.

It constantly delves into the rules and regulations relating to the organization of services (awarding methods, governance, pay constraints, etc.) and assists companies in the tax field (VAT, direct taxation and excise duties), as well as Procurement, Concessions and Licenses.

It organizes seminars and workshops for its members on relevant and topical issues.

## **Service, Administration and Organisation**

**The Administration is in charge of setting and collecting the membership fees, it also deals with the various aspects of new memberships and formalises their applications for the Executive Council.**

It also deals with the budgets, the administrative management of the different bodies and federal staff by supporting the administrative activities of the different Services and Departments

It is responsible for the administrative management of paid union permits provided for by the Collective Labour Agreement Environmental Services.

The internal organisation coordinates the cross-sectorial services of the Federation, by providing technical and secretarial support to each Sector and Department. It deals with staff management, logistics and suppliers, also dealing with ICT services, internal Security and Privacy as well as multimedia services.

## **Communication Department**

**It deals with the promotion of the whole Federation vis-à-vis the various external counterparts, as well as with the daily dissemination of information to the affiliated companies.**

It develops brand positioning and communication projects, often jointly with the affiliated companies, for reaching the Federation's goals and for implementing national initiatives.

It holds a dialogue with the main national and local newspapers and magazines, advertising agencies, Universities and Research Centres, in the framework of the preparation of press reportages, public-awareness campaigns, studies or dissemination events.

It supports the Federation's Departments and Services in planning and organising regular and occasional conferences and workshops.

It promotes the activities of the Federation and all its affiliated companies through publishing, media relations and social networks, with a view to widely disseminating information and in-depth analyses on the many issues relating to public services.

### **Legal, Legislative and Tax Issues Department**

Email: [giuridico.legislativo@utilitalia.it](mailto:giuridico.legislativo@utilitalia.it)  
Tel. 06 945282.90

### **Administration and Organization Service**

Email: [amministrazione@utilitalia.it](mailto:amministrazione@utilitalia.it)  
PEC: [utilitalia.amministrazione@pec.it](mailto:utilitalia.amministrazione@pec.it)  
Tel. 06.945282.10-20

### **Communication Department**

Email: [areacomunicazione@utilitalia.it](mailto:areacomunicazione@utilitalia.it)  
[eventi@utilitalia.it](mailto:eventi@utilitalia.it)  
[social@utilitalia.it](mailto:social@utilitalia.it)  
[stampa@utilitalia.it](mailto:stampa@utilitalia.it)  
Tel. 06 945282.76

# UTILITALIA

Federation of environmental,  
energy and water utilities

[www.utilitalia.it](http://www.utilitalia.it)