H20 NEWS

PERIODIC UPDATE FOR THE WATER INDUSTRY

EDITION SEPTEMBER 2011

ACCADUEO 2012

CONFIRMING AND STRENGTHENING THE LEADERSHIP ACHIEVED

WITH THESE GOALS IN MIND, the international exhibition organised by *BolognaFiere* dedicated to technologies for the treatment and distribution of drinking water and wastewater treatment, is preparing to get to the heart of organising the 2012 edition, which will take place from 23 to 25 May in the fair district of Ferrara.
Now at its 11th edition, today the expo is considered the national reference point for all the professionals working in the water sector as well as one of the main international events in this field.

FEATURES 2010

visitors: 6,775
exhibitors: 271
expo area: 15,186 sqm
seminars: 48

THE FULL PROGRAMME of ***conferences and technical seminars***, with the participation of internationally renowned speakers, will be, for the 2012 edition, one of the main factors of excellence of the expo as well as an important opportunity of comparison and professional updating for professionals.
To support the ***internationalisation*** of the event and to make it easier to meet and establish business contacts with countries involved in important water services modernising projects, **ACCADUEO** will draft an important promotional programme to favour foreign commercial delegations coming from the area of North Africa.
ACCADUEO offers itself again with renewed momentum and dynamism as the stage dedicated to promoting ***technological innovation***. The **GUIDE TO NOVELTIES AND INVENTIONS** (distributed to all expo visitors) which will contain the novelties/inventions recommended by manufacturers exhibiting at the event, will, for the first time, be placed side-by-side with the **SHOWCASE OF INNOVATION** exhibit. The display, dedicated to a selection of the novelties of exhibiting companies, will be supervised by a special technical-scientific commission of experts of water services management companies.

The expo will take place simultaneously with **CH4 - CI ACCA QUATTRO**, the Gas Distribution and Transport Exhibition, and **H2O INDUSTRY** focusing on the technologies, treatment systems, equipment and services dedicated to water treatment (supply, process, wastewater) for industries.

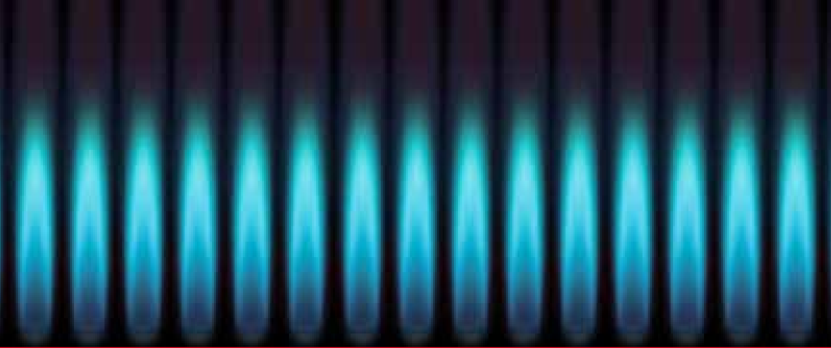
WaterLossEurope2012

AMONG THE SIDE-PROJECTS of the next edition of **ACCADUEO 2012**, the international conference **WaterLossEurope2012** is the European event of greatest prestige in the sector on the technical-scientific level.
Organised by of the IWA group specialised in water loss, the Water Loss Specialist Group Conference, in collaboration with BolognaFiere, University of Ferrara, University of Perugia, EWRA, IWA Italia, FederUtility, Fondazione AMGA, IREN Spa, Gruppo HERA Spa and Associazione Idrotecnica Italiana, will be held in Ferrara, in parallel with ACCADUEO, from 23 to 25 May 2012, at the University of Ferrara and at the expo spaces of ACCADUEO.
The aim of the conference is to adapt the theme of mains supplies loss to the needs of the specific European and Mediterranean market.
This will offer the opportunity to discuss complementary and compatible subjects such as "regulation" to help reduce loss, energy efficiency, economic aspects and water efficiency incentives measures by proposing incentives for efficiently managing water resources.

For more detailed information: www.waterlosseurope.com

THE INVESTMENT PUZZLE

THE WATER SERVICES SECTOR is currently involved in a radical reorganisation focusing on the regulation structure of the competencies and operational management of services. Market opportunities are linked to the need for in-depth modernisation of the systems and facilities, within the altered framework of environmental standards and the degree of uncertainty determined by climate change. The value of the investments scheduled in the approved Local Area Plans equals approximately 60 billion euros over thirty years (a yearly average of 2 billion euros). At this point in time, less than half the investments forecasted are actually realised by the operators. The reasons for this variance are due to Local Area Plans containing, for the first years, forecasts that are either excessively generous or the difficulty of water service operators to achieve the forecasted investments. The results of the Italian referendum (2nd question regarding the return on investment) have opened a phase of discussion and in-depth analysis among operators and territorial agencies.



CIACCAQUATTRO

THE EXHIBITION DEDICATED TO TECHNOLOGIES FOR THE TRANSPORT AND DISTRIBUTION OF GAS will feature the organisation of a conference section dedicated to important and crucial themes for professionals. The evolution of the sector, characterised by the following dynamics:

- 45% of the energy consumed in Italy consists of natural gas (data from 2009)
- the June 2011 referendum in Italy decrees a stop to the development of nuclear energy
- the growth of the demand for new energy tied to the end of the recession
- new energy efficiency targets
- the spreading of distributed generation and micro-generation

highlight the importance of this source of energy and its various uses as well as the necessary "change in speed" required to improve the efficiency and effectiveness of the mains supplies, possible only through the innovation of "technical" and "process" systems, their integration and interaction, and the technology in the distribution network infrastructures. At **CH4** stock will be taken as to projects for investing in multi-utilities aimed at the renewal of the gas network through the use of new technologies and on subjects of strategic importance for the sector.

H20 INDUSTRY

THE INDUSTRIAL SECTOR REPRESENTS, after agriculture, the most water-demanding sector. In the light of the increasingly lower availability of water resources and, consequently, of the stricter law requirements on waste products, as well as the growing economic impact of water sector management (tariffs for delivery, drainage and treatment needs), a constantly growing interest is shown by manufacturing companies toward suitable treatment technologies and systems/techniques aimed at reducing consumption as well as at rationalisation (also considering recovery and re-use options) of water flow within production processes.
H2O INDUSTRY is an "event within the event" that intends to offer the opportunity to exhibit to all suppliers and manufacturers of technologies, treatment systems, equipment and services dedicated to managing water (delivered water, process water, sewage water) in the industrial field, as well as being a showcase and meeting place for sector specialists and consultants.

PRODUCT SECTORS

	ACCADUEO - H20	CIACCAQUATTRO - CH4	H20 INDUSTRY
Equipment, fittings, machinery	●	●	●
Constructions site equipment	●	●	●
Components	●	●	●
Water and gas services management	●	●	
Services for businesses, consulting	●	●	●
Operational sectors of the gas and water industry	●	●	●

SUBJECTS TO BE COVERED AT THE ACCADUEO 2012 CONFERENCES

- WATER REGULATION SERVICES FOLLOWING THE REFERENDUM
- UPDATES TO SECTOR REGULATIONS
- IMPLEMENTATION OF THE WATER FRAMEWORK DIRECTIVE (WFD)
- RESOURCE SAVING
- REGIONAL, TERRITORIAL AND LOCAL AREA PLANS
- THE CULTURE OF WATER AND COMMUNICATION
- WATER RESOURCES MANAGEMENT – WATERWORKS, SEWAGE SYSTEMS AND PURIFICATION PLANTS
- TECHNOLOGICAL INNOVATION
- INVESTMENTS DYNAMICS AND TARIFF REGULATION
- MAINS SUPPLIES LOSSES
- ARG/GAS RESOLUTION 155/08
- SPECIFIC SECTOR FOCAL POINTS (E.G. TELEHEATING)

INTEGRATED WATER SERVICE: REF

FOR WORLD WATER DAY, declared by the UN and celebrated on **22 March** of each year, ISTAT (Italian National Statistical Institute) has recently provided a summary overview on this fundamental resource through statistics on the water cycle, the use of urban water and a series of climatic factors. The data released comes from ISTAT surveys taken in recent years, including "Survey on water services", "Aspects of daily life", "Household consumption" and "Survey on weather, climate and water data".

WATER IN FIGURES
DRAWING AND CONSUMPTION

In 2008, on a national level, water drawn for drinking purposes amounted to 9.1 billion m^3, 1.7% more than in 2005, 2.6% more than in 1999. The water drawn per capita amounts to approximately 150 m^3 per inhabitant, a figure greater than that of other countries such as Spain (127 m^3 per inhabitant) the UK (113 m^3 per inhabitant) and Germany (62 m^3 per inhabitant).

In 2008, in Italy 92.5 m^3 of drinking water was delivered per inhabitant, with an increase of 1.2% in the last ten years. This value includes consumed water, measured by the meters of the individual users, and by estimates of water that was not measured but consumed for different uses (public places, fountains, street-cleaning, public green areas watering, etc.).

WATER IN FIGURES
MAINS SUPPLIES LOSSES

On a national level, 2008 recorded a loss of 47% of drinking water, due to the need to guarantee continuity of mains supplies flow, but also to actual leaking of the mains supplies themselves. The greatest mains supplies losses were recorded in Apulia, Sardinia, Molise and Abruzzo where, for every 100 litres of water delivered,

approximately 80 more are put into the system; the lowest are recorded in Lombardy and in the two autonomous provinces of Trento and Bolzano/Bozen *(see the chart below)*.

WATER SERVICES MANAGERS

The managers of water services, whether specialised or in economy, working in Italy during the 2007-2008 two-year period, have decreased by 18.9%. Compared to 1999, the decrease has equalled 57.2% (shifting from 7,826 to 3,351) by effect of the water services management reform process (Legislative Decree 152/2006). Between 2007 and 2008, the share of municipalities in which outsource companies managed at least one type of water service (from drawing to purification) shifted from 50% to 58.3%. In 2008 managers of Integrated Water Services (IWS) covered a resident population equal to 68.7%, increasing by 8.7 per cent points compared to 2007 and confirming the trend of many municipalities to transfer water services management, often carried out in economy, to new outsource managers.

EVOLUTION OF THE REGULATIONS, 17 YEARS AFTER LAW 36/94

Seventeen years from the going into effect of law no. 36/94, later adopted in Legislative Decree 152/2006, most all Regions (with the exception of Trentino Alto Adige, which was exempted by the ruling of the Constitutional Court) have issued the related implementation law provided for by the Galli Law. In spite of this, today it is still not possible to say that the reform is completed and the recent new legislative developments are a clear confirmation of this. Another important signal of the persistent incompleteness of reform implementation is the fact that approximately 66% of the population is served by managers who apply the normalised method provided for by the reform law, while for the remaining 34% a transitory method based on criteria contained in specific CIPE (Italian Interdepartmental Committee for Economic Planning) decisions is still applied.

A SNAPSHOT OF THE TERRITORIAL AUTHORITIES

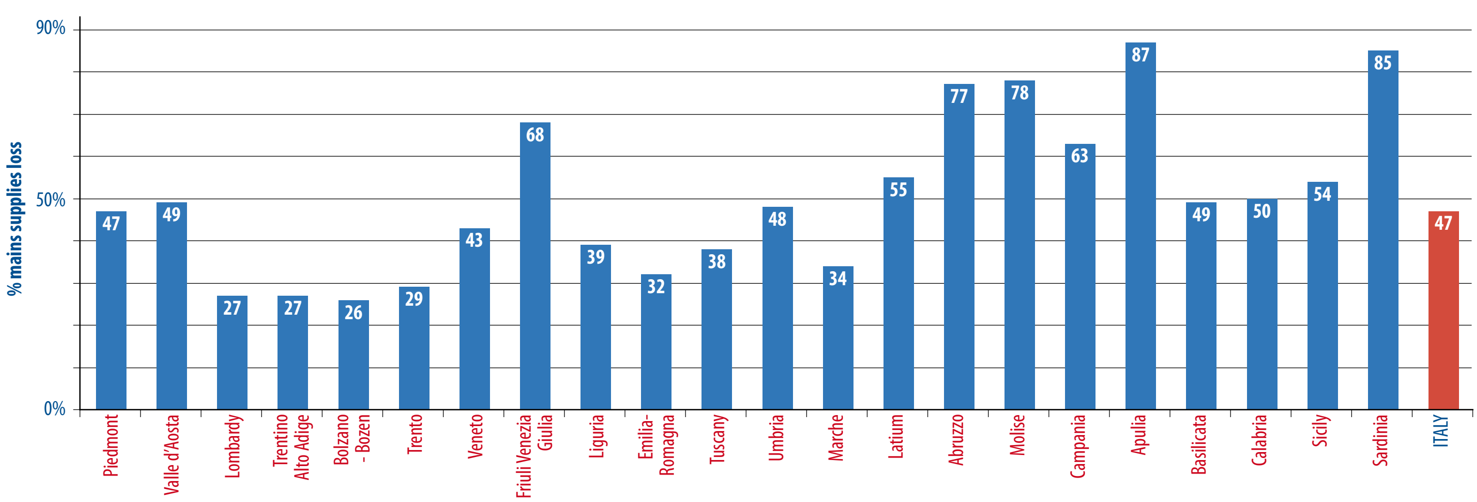
From the latest data published by the National Supervisory Commission for Water Resources *(note 1)*, it emerges that of the 92 AATOs (Optimal Territorial Authorities) provided for in the regional laws, all have taken office. All the AATOs (with the exception of the Interregional Authority of Lemene) have carried out reconnaissance activities of the systems and facilities in order to draw an accurate picture of the technical-structural situation of their areas of competence. In total, 84 Plans have been approved (95% of the population i.e. almost 55 million inhabitants).

OUTSOURCED INTEGRATED WATER SERVICES

Following the June 2011 Referendum, art. 23 b has been repealed. Consequently all outsource agreements in being will no longer be obli-

[1] *National Surveillance Commission for Water Resources (CONVIRI), "Annual Report to Parliament on the state of water services. Year 2009", Rome, July 2010. http://www.conviri.it/contenuti/delibere/Relazione_al_Parlamento_2009.pdf*

DRINKING WATER MAINS SUPPLIES LOSSES (WATER INTRODUCED OVER WATER DELIVERED) BY REGION
Year 2008, per cent values
source: ISTAT, survey on water services



FERENCE DATA

gated to abide by the strict restrictions provided for by art. 23 b (with terms scheduled for no later than the end of 2011, 2013 and 2015), therefore they could end regularly by the scheduled dates. With regard to the new outsourcing agreements, due to the complex stratification of regulations, it is difficult to understand which exactly the applicable regulations are. As art. 23 b has been repealed, the regulations that this in turn repealed do not regain life. It is clear that the new outsourcing agreements will have to comply with EU regulations.

NATIONAL AGENCY FOR THE REGULATION OF INTEGRATED WATER SERVICE

To regulate management of integrated water services, the "Development" Decree of May 2011 has instituted the National Agency that will replace the National Surveillance Commission of Water Resources.

INVESTMENTS IN THE WATER SECTOR

Estimates (Surveillance Commission, Blue Book) of the necessary financial resources indicate a need for 45-60 billion euros to realise the investments required in the middle-long term throughout the national territory (before public taxation). However, if we go from estimates to final balance figures, unfortunately the data regarding investments are quite disappointing: only 56% of the actions envisioned have been carried out in the 2005-2008 period. The non-realisation of the investments realised compared to those estimated in the Local Area Plans is due mainly to realisation delays (70%), and lack of authorisations (4%). The allocation of the investments realised by type of service, sees in first place waterworks service with 47% of the investments earmarked with respect to the total (of these 5% for the reduction of losses), followed by sewage services (28%) and purification services (18%).

While 61% of the investments concern the creations of new works, 39% is for extraordinary maintenance and replacements.
The table below summarises and compares the data available in the surveys of the CONVIRI Committee and Blue Book, to estimate the investment throughout the entire national territory.
Despite the diversity of the sample, we can see that the values regarding annual investments per capita can be compared between the two reports (the indication on the overall percentage of grants equals approximately 11-14% of the total programmed investments).

TARIFFS - AVERAGE COST PER YEAR FOR HOUSEHOLD USE

The availability of the different tariff categories, the fixed share and sewage and purification tariffs, assuming different levels of consumption, makes it possible to calculate the annual average cost of hypothetical household use and to compare the amount of this cost in the various tariff ranges. Between 2004 and 2008 the average annual cost shifted from approximately 240 to about 297 euros per year. The corresponding unit cost went from 1.2 euros per m3 in 2004, to 1.49 euros per m3 in 2008, with an overall increase of 23.8%. The average annual increase is stable at slightly less than 6%. *(See the table above)*
The cause of these tariff increases is linked mainly to the investment funding provided for by the Local Area Plans to overcome the critical situations characterising the current water services spectrum. However, these increases refer to the AATO and years in which the reform is already applied and, therefore, to the new tariff system.

TARIFFS – EVOLUTION AND COMPARISONS

The data analysed suggest that tariffs in recent years have increased and are destined to continue increasing in the years to come, as it is necessary to draw up considerable investment plans to adapt and maintain the infrastructures necessary for ensuring adequate levels of service. To the practical difficulties linked to tariff increases required for financing investments, we must add the difficulties deriving from incorrect forecasts of increasing delivered volumes, which did not occur, thus determining lesser tariff incomes compared to the ones expected and, consequently, insufficient coverage for the programmed investments.

AVERAGE ANNUAL COST, INCLUDING VAT, AND AVERAGE ANNUAL COST OF WATER SERVICES OVER 200 M³ COMPARING 2004 AND 2008

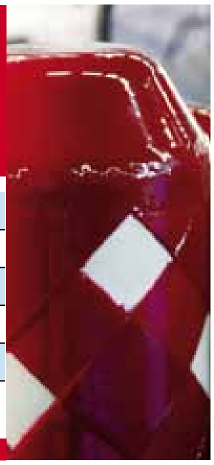
	AVERAGE	MAXIMUM	MINIMUM
2004 €	240	356	112
2004 €/m³	1,20	1,78	0,56
2006 €	267	400	110
2006 €/m³	1,34	2,00	0,55
2007 €	282	613	111
2007 €/m³	1,41	3,06	0,55
2008 €	297	629	111
2008 €/m³	1,49	314	0,55
Variations 2008-2004	23,8%	76,7%	-1,2%

source: Committee, 2009 report on the state of water services

PROJECTION OF INVESTMENTS ON A NATIONAL BASIS BEFORE GRANTS

source: Committee, 2009 report on the state of water services

	COMMITTEE 2009	BLUE BOOK 2009
Population	36,370,900	53,724,140
Amount €	27,862,328,408	41,814,301,000
Per inhabitant (€/inh)	766.06	881.06
Per inhabitant per year (€/inh/year)	35.80	34.98
Extension to the Italian population (€)	45,289,772,848	60,518,094,000



THE POST-REFERENDUM DEBATE

FOLLOWING THE RESULTS OF THE REFERENDUM Italian municipalities are now facing a phase of uncertainty. The combined outcomes of the two referendums on water can in fact result in a depression in investments, both public and private. The ANCI (Italian National Municipalities Association) has prepared an Explanatory Note containing the first impressions regarding the framework of post-referendum regulations.
While emphasising how the repeal of art. 23 b will trigger greater organisational freedom for the municipalities, the ANCI also underlined how local authorities will have to begin careful monitoring of existing outsourcing agreements so as to confirm compliance with EU regulations (in particular, with regard to *in-house providing* and the PPPs – Public Private Partnerships).

INNOVATION

ACCADUEO IS SYNONYMOUS OF NOVELTY AND INNOVATION in water services management. In addition to the greater exposure of the sector and the rich conference programme, this edition will also host a selection of novelties and inventions - approximately one hundred - presented by the makers of components and equipment. The path for choosing functional novelties, inventions or innovations in the fields of software/services applications, pipelines, pumps/machinery/facilities, and tools is under the supervision of a special technical and scientific commission of experts coming from water services management companies.

The **INNOVATION SHOWCASE** will translate, within the expo, into a display-exhibit path and a dedicated publication. The latter - titled **GUIDE TO NOVELTIES AND INVENTIONS** - will be distributed at the show to all event visitors.

The Guide to Novelties of the previous 2010 edition highlighted the following trends in "novelties/innovations" by companies:

- From the point of view of facilities, machinery construction details have been optimised to obtain the best performance as to the environment, hydraulics and optimum sealing reliability, using materials and painting processes that provide exceptional duration over time.
- As for pipelines, there has been great improvement of the performance requirements in the ability to resist internal and external stress, thus increasing resistance to breaking and reducing its onset.
- Of considerable importance were the novelties in the field of technologies patented to reduce the noise levels of manholes subject to vehicular traffic.
- Instruments and technologies are increasingly more aimed at improving energy efficiency and the reduction of CO2 emissions in industrial technical solutions and at enhancing the performance of the facilities they are designed for. They are used for light and innovative material products, with a compact and versatile design, at competitive prices.

PROJECT REALISATION STAGES

1. Constitution of the Committee and Programming
2. Collection of Novelties from Exhibitors (February 2012)
3. Selection of Novelties (by March 2012)
4. Staging of the "Innovation Showcase" exhibit (May 2012)

AREAS OF ACTION:

- **Software applications / services**
- **Pipelines/Wells**
- **Pumps / Machinery / Facilities**
- **Instrumentation**

VISITORS

H2O / CH4 VISITORS TARGET

- City-Owned Enterprises
- Water services management
- Construction companies
- Public Bodies / Public Administration
- Designers
- Distributors
- Industrial Firms
- Farms

H2O INDUSTRY VISITORS TARGET

- Industrial Sector
- Agricultural and food sector
- Breeding
- Private/City-owned water services management
- Energy production
- Public Administration / Control bodies
- Research Bodies/Universities

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Organised by:

BolognaFiere

In collaboration with:

FERRARA FIERE CONGRESSI

Show Office:
BolognaFiere SpA
Piazza Costituzione 6
40128 Bologna • Italy
Tel: +39 051 282111
Fax: +39 051 6374028
E-mail: accadueo@bolognafiere.it

H2O ACCADUEO

Registered Office: BolognaFiere SpA • Viale della Fiera 20 • 40127 Bologna, Italy • Capitale Sociale € 93.780.000,00 i.v.
C.F., P.IVA e Reg. Imprese Bo 00312600372