

## **PROFESSIONAL CURRICULUM**

### **STUDIO D'INGEGNERIA ISOLA BOASSO & ASSOCIATI Srl**

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### **Company presentation**

*"Studio di Ingegneria Isola-Boasso & Associati Srl"* works in the public and private architecture and building industry. In particular the company carries out projects related to public territorial infrastructures such as hydraulic, environmental, road and energy works as well as to historic and monumental buildings, residential housing, hospitals and sports facilities.

Among all activities structural, geotechnical and hydraulic engineering are the sectors where the company reaches excellence.

Furthermore, the group carries out a great number of exhaustive research and development activities jointly with Italian Universities and in particular with the Applied-Science Faculties of Turin where Mr. Riccardo Isola is professor since 1999.

Studio di Ingegneria Isola Boasso & Ass. Srl has reached a great experience in works of great importance and high complexity both in Italy and abroad.

The current partners and directors are:

- ISOLA RICCARDO
- BOASSO PAOLO
- RABAGLIO FABRIZIO

The company was founded in 1959 by the current president Eng. Lorenzo Isola. From the nineties, under the technical direction of eng. Riccardo Isola, the company's business moved from building to the hydraulic and structural engineering. At the beginning Italy was the main country in which the company carried out design activity and works management for hydraulic works, as water supply system and sewers, and territorial defense. Since 2000, the company's design activity has been extended abroad.

On behalf of the main Italian construction companies, such as Società Italiana per Condotte d'Acqua and CMC Ravenna, the Company designed important water supply systems in Algeria for a total amount of over 250.000.000 €.

In these projects were developed both final and detailed design; furthermore the Company co-operated with the executing company for the duration of works, guaranteeing the steady presence on site, supporting and, in other cases, replacing the executing company's design office.

In addition to Algeria the Company worked in other important foreign countries as Republic of Cape Verde, Rwanda, Saudi Arabia, Egypt, Turkmenistan, Israel as well as in European countries of France and Croatia.

In 2012, a branch of our Company opened in Iraq.

Over the past 8 years, significant projects of sewers (more than 1.500 km) and wastewater treatment plants (more than 400.000 equivalent inhabitants) have been completed in Iraq, for an amount of over 200.000.000 €, both on behalf of the Ministry of Municipalities and Public Works and on behalf of major Iraqi construction companies. At the same time the Company continued to work in Italy for public authorities and for construction companies within tender for design and construction works.

The Company worked for Local Authorities, Integrated Urban Water Management, Land Reclamation and Irrigation Authorities, Regions, Provinces and Municipalities all over Italy.

The most important public authorities the Company worked for are the following: ASM Spa, Acqua Novara VCO, CORDAR Biellese, SMAT, Acquedotto Pugliese, Abbanoa SpA, Metropolitana Milanese, Servizi Ambientali Savona, SCA, AVS e Arin.

The main private customers of our Company are: SAIPEM, Società Italiana per Condotte d'Acqua, CMC, CCC, CMB, Aqualia, Degremont, Zumaglini & Gallina, Severn Trent.

The design and the building sites management activities carried out by our company meet the production system quality and efficiency criteria required by the quality standard ISO 9001, ISO 45001 and ISO 14001.

## Staff

The technical staff operating presents a high professional standard and has developed a long and valuable expertise further to many years of profitable teamwork. The staff consists of master graduates-senior level (more than 10 years of seniority), master graduates-junior level, qualified technical staff and employees.

The quality of the service offered by '*Studio di Ingegneria Isola-Boasso & Associati*' is enhanced by the high level of expertise of a number of members of the team working permanently for the company.

The staff is composed by employers and some fixed employees, but it could be expanded with some additional consultants when required.

- ***Mr. Isola Riccardo, engineer***

He was born in Vercelli on 10<sup>th</sup> February 1963, where he lives.

He got his degree in hydraulic engineering (systems sector) at the Polytechnic University of Milan in December 1988; he obtained the professional qualification to practice during the first session of the year 1989, he enrolled in the engineer register of the Province of Vercelli in 1989 (n. 795).

He has been working as a professional since 1989, dealing with the design and management of public and private works.

He is responsible for every hydraulic works of the company "*Studio di Ingegneria Isola-Boasso & Associati Srl*".

He was the project manager of aqueduct of Maghnia (ALGERIA, 2003-2005) and the project manager of the drinking water feeding system of Skikda (ALGERIA, 2007-2008) and Cap Djinet (ALGERIA, 2010), performed on behalf of SOCIETA' ITALIANA CONDOTTE D'ACQUA SPA.

Since 2012 he has been the project Manager of several works of sewer systems and WWTP in IRAQ (in Al Najaf, Babylon and Salah-Al-Deen Governorates).

He collaborated as contract professor of "Hydraulic infrastructures I" and "Hydraulic infrastructures II" of Polytechnic University of Turin, second faculty of Engineering of Vercelli, from 2001 to 2010 and he was assistant during "Hydraulic infrastructures"

exercises in the same faculty from 1995 to 2000.

He was speaker in Hydroaid learning courses from 2006 to 2009 on the behalf of CIF, a training agency of International Labour Organization.

He is author of 2 publications:

- "Impianti mini hydro nei condotti fognari. Primi risultati per l'installazione di una girante". Rivista L'Acqua 3/2016;
- Progetto di architettura a Vercelli "Una villa fuori serie". Rivista Costruire n.189/1999.

- ***Mr. Paolo Boasso, engineer***

He was born in Vercelli on 24<sup>th</sup> March 1959, where he lives.

He got his degree in civil engineering at the Polytechnic University of Turin on 21<sup>st</sup> February 1984 with a final mark of 110 cum laude, and he passed his state examination in 1984; he enrolled in the engineer register of the Province of Vercelli on 13<sup>th</sup> September 1984 (n.689).

He has been working as a professional since 1987, dealing with the design and management of public and private works. He is expert in structural design.

- ***Mr. Fabrizio Rabaglio, engineer***

He was born in Gattinara on 10<sup>th</sup> July 1975, where he lives.

He got his degree in civil engineering at the Polytechnic University of Turin in October 1999, Second Faculty of Engineering, Vercelli, and he passed his state examination in 1999, he enrolled in the engineer register of the Province of Vercelli in 2000 (n.988).

Besides the activities he dealt with, before his degree, he achieved a collaborating experience with Associazione di Irrigazione Ovest Sesia (West Sesia Irrigation Association), where he projected to the final design and/or restructured dams in the field of study of the Irriguous Territory of the Associazione), the participation with the Test Laboratories Tecno Piemonte s.r.l. of Romagnano Sesia to the workshop about the new European Directive 89/106/EEC focused on construction products (at the European Community in Bruxelles and at ICITE – CNR in Milan).

He was the project Manager of the aqueduct of Douaouda-Fouka (ALGERIA), performed on behalf of C.M.C. - Ravenna.

## **Employees and main Consultants**

- *P.S. Deambrogio Michela* – *employee*: Secretary and assurance quality manager
- *Eng. Spina Nicola* – *employee*: hydraulic modeling and design, territorial hydraulic, and analysis with GIS systems.
- *P.S. Tambone Francesco* – *draftsman*
- *Eng. Marchiori Davide* – *consultant*: Structural modeling and design
- *Eng. Gagliardi Eloisa* – *consultant*: Architectural and structural design.
- *Eng. Radice Roberta* – *consultant*: hydraulic modeling and design.
- *Eng. Sacco Marco* – *consultant*: Architectural design, metric calculations and cost accounting.
- *Eng. Vinzio Luca* – *consultant*: Architectural design, metric calculations and cost accounting.
- *Eng. Daniela Perucca* – *Consultant*: BIM planning.
- *P.S. Bove Francesco* – *Consultant*: Drafts and bills of quantities

## **Scientific consultant**

### ***Prof. Ing. Renato Iannelli***

Graduated with honors in civil engineering, hydraulic section (specialized in sanitation) from the Pavia University, on 27 October, 1983, with a thesis on the finite difference numerical simulation of a recirculatory movement in turbulent flow.

In November 1983 he passed the State examination for the qualification of engineers and in December, 1985, he registered with the Order of Engineers of the province of Pavia, n° 1206. In March 2007 he registered with the Order of Engineers of the province of Pisa, n° 2519.

Since 1985 he works as a freelance engineer in the field of sanitation engineering, hydraulics and hydraulic structures, along with his scientific and academic activities. Certain of the important function of his professional activity even within the framework of his scientific background, he has always undertaken his professional activity by

prioritizing the most interesting and innovative aspects from a scientific point of view. In this regard, many of his publications derive from problems faced through his own professional activity.

From 1993 to 2001 he was a researcher at the Second Faculty of Engineering of the Turin Polytechnic, within the scientific and disciplinary section H01B (Hydraulic constructions). From 2001 to 2016 he was associate professor of environmental and sanitation engineering (group ICAR03) at the Faculty of Engineering of the Pisa University, within the department of Civil Engineering.

Member of the examination commission for the admission to Doctorate Research courses in « Science and Techniques of Civil Engineering » at the Pisa University for the 2002/2003 academic year.

Expert member in the commission for the State examination for the qualification of engineers at the Pisa University during the 2003/2004 (summer and winter session) and 2004/2005 (summer and winter session) academic years.

Since 1991, he has participated in several following research projects and programs.

He has been the Thesis advisor of more than 40 Master's theses (besides another 10 in progress) at the Faculties of Engineering of the Universities of Pavia, Pisa and Brescia, and the Turin Polytechnic.

Since the 1st December, 2016, he has been associate professor of environmental and sanitation engineering (group ICAR03) at the Faculty of Engineering of the Pisa University, within the department of Civil Engineering.

Research has given birth to the publication of about 50 works in journals and national and international conventions.

The arguments with which he has been involved since 1983 range from the typical topics of environmental-sanitation engineering (treatment of civil and industrial waste waters, treatment of primary waters, management of solid urban waste) to the technological networks of transport of waste waters and primary waters, with a particular attention given to the planning, managing and integrated approach aspects (basin planning, cost-profit analysis, environmental impact survey, real-time control of mixed transport— purification – discharge systems), according the criteria of the Laws. In this field he has studied, among others, the digital modeling of both hydraulic and processing aspects, with its applications to the planning and management stage of the

transport and water-treatment systems.

## **Office**

The study has 15 job stations, with hardware and software.

## **Hardware**

- 5 printers, A4 and A3, laser printers and inkjet technology printers, black-white and colours
- 2 plotters, A0
- scanner A4 and A3

## **Software**

- operational systems type Windows, complete of office package, including Word, Excel, Power Point, Project, etc.
- drawing programs type Autocad, versions 2000-2016, with 3D modeler, All Plan
- Territorial management program Arc View Gis
- Programs of metric calculations and cost accounting, ACCA Primus
- Specialistic programs for structures: Modest, Xfinest, Sap, Midas and others for specific computing.
- Specialistic programs for road modeling: Antares
- Specialistic programs for hydraulic modeling: Hec-Ras, Eraclito, GMS 4.0, Hec-HMS, Urbis, SWMM, SOCS, Surfer, RAP, Flea, Frescure, Hammer.
- Specialistic programs for hydraulic nets: Eraclito, EPANET
- Filter program g.m.s. 4.0

## 2. Professional activities

A concise curriculum about the main professional activities of the company about acqueducts, WTP, sewer and WWTP design and supervision is shown below.

### 2.1 Main purchaser

#### **MUNICIPALITIES**

*MUNICIPALITY OF ARENA PO (PV)*  
*MUNICIPALITY OF BENNA (BI)*  
*MUNICIPALITY OF BIELLA (BI)*  
*MUNICIPALITY OF BURONZO (VC)*  
*MUNICIPALITY OF CANDELO (BI)*  
*MUNICIPALITY OF CASALE M.TO (AL)*  
*MUNICIPALITY OF GATTINARA (VC)*  
*MUNICIPALITY OF IVREA (TO)*  
*MUNICIPALITY OF LINAROLO (PV)*  
*MUNICIPALITY OF MOLINELLA (BO)*  
*MUNICIPALITY OF MONTEROSSO AL MARE (SP)*  
*MUNICIPALITY OF NOVARA*  
*MUNICIPALITY OF ROMAGNANO (NO)*  
*MUNICIPALITY OF RONCO BIELLESE (BI)*  
*MUNICIPALITY OF SANTHIA' (VC)*  
*MUNICIPALITY OF SOMAGLIA (LO)*  
*MUNICIPALITY OF VERRONE (BI)*  
*MUNICIPALITY OF VERCELLI*

#### **PROVINCIAL ADMINISTRATIONS**

*PROVINCIAL ADMINISTRATION OF BIELLA*  
*PROVINCIAL ADMINISTRATION OF NOVARA*  
*PROVINCIAL ADMINISTRATION OF TORINO*  
*PROVINCIAL ADMINISTRATION OF VERCELLI*  
*PROVINCIAL ADMINISTRATION OF VERBANO CUSIO OSSOLA*

#### **PUBLIC CORPORATIONS**

*ACQUA NOVARA VCO S.p.A. - NOVARA*  
*ASL N. 13 -VERCELLI*  
*ASL N. 11- NOVARA*  
*AZIENDA SANITARIA LOCALE DI PIACENZA*  
*ANAS - TORINO*  
*ATO 5 – BOLOGNA*  
*ATO2 – VERCELLI*  
*ASM S.p.A. ex ATENA S.p.A. - VERCELLI*  
*AZIENDA RISORSE IDRICHE DI NAPOLI*  
*GRUPPO CAP*  
*CORDAR S.p.A. (BIELLA)*  
*COSER BASSA VERCELLESE (VERCELLI)*  
*FONDAZIONE SALVATORE MAUGERI (PV)*  
*ITALFERR S.p.A.*  
*MAGISTRATO PER IL PO - PARMA (AIPO)*  
*MINISTERO DEI LAVORI PUBBLICI*  
*MONTEROSA 2000 (ALAGNA VALSESIA – VC)*  
*OPERA PIA CROCETTA - TORINO*  
*OPERA PIA LOTTERI - TORINO*  
*POLITECNICO DI TORINO (TO)*  
*ACQUEDOTTO PUGLIESE S.p.A.*  
*ABBANO S.p.A.*  
*A2A CICLO IDRICO S.p.A.*  
*SMAT (TORINO)*  
*HERA (BOLOGNA)*  
*ROMAGNA ACQUE (FORLI' CESENA)*  
*IREN*  
*UNIACQUE*  
*VIVASERVIZI*  
*VIACQUA*



*ROMAGNA ACQUE*

*IRISACQUA*

*AMAM S.p.A.*

*COMMISSARIO UNICO DEPURAZIONE*

*SERVIZI AMBIENTALI S.p.A.*

*SCA S.p.A.*

*GAIA S.p.A.*

*SIDRA S.p.A.*

*SAIPEM*

### **TERRITORIAL ASSOCIATIONS IN A MOUNTAIN REGION**

*TERRITORIAL ASSOCIATION OF VALSESIA*

*TERRITORIAL ASSOCIATION OF VALLE  
CERVO*

### **CONSORTIUM**

*CONSORTIUM OF OVEST SESIA –BARAGGIA-  
VC*

*CONSORTIUM OF BONIFICA DELLA  
BARAGGIA VERCELLESE-VC*

*CONSORTIUM OF WASTE WATER  
TREATMENT S.p.A. (SAVONA)*

### **COMPANIES**

*ALTERNATIVA SRL (MILANO)*

*IMPRESA BALBIS (VERCELLI)*

*IMPRESA CARDANI (NOVARA)*

*IMPRESA COGEIS (QUINCINETTO)*

*IMPRESA LIS SRL (SERRAVALLE SESIA)*

*ITACA SPA – NAPOLI*

*IVIES SRL (PONT ST. MARTIN)*

*SOCIETA' ITALIANA CONDOTTE D'ACQUA  
S.p.A. (ROMA)*

*S.P.E. SRL*

*SINTERAMA SPA – BIELLA*

*SNAM PROGETTI S.p.A. (MILANO)*

*SIPEA S.p.A. (BORGOSIESIA)*

*ZUMAGLINI & GALLINA (TORINO)*

*CMC (RAVENNA)*

*METROPOLITANA MILANESE S.p.A.*

*LA VENARIA REALE*

*ARIN (NAPOLI)*

*ACMAR (RAVENNA)*

*CCC(RAVENNA)*

*TWS S.p.A.*

*DEGREMONT*

*IMPRESA MATTARESE*

Vercelli, 28<sup>th</sup> Dec 2020

Ing. Riccardo Isola

Ing. Paolo Boasso

Ing. Fabrizio Rabaglio