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ACOUSTIC & RENOVATION

ACOUSTIC ENGINEERING FOR ARCHITECTURE, INFRASTRUCTURE AND THE ENVIRONMENT

COMPANY PROFILE

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ARSolution provides specialist consultancy in noise and vibration control, bringing together analysis, modelling, design and on-site verification.

Our work covers buildings, infrastructure, workplaces and complex plant, with close attention to the acoustic quality of spaces and to their compatibility with the surrounding context.

ENGINEERED IN ITALY.
BUILT FOR THE WORLD.

Italian expertise in acoustic engineering, delivering precision, innovation and design quality across international projects.



HOTELS

- **MAMA SHELTER HOTEL,** ROME
- **LE PALME HOTEL,** ARZACHENA COSTA SMERALDA
- **REDEVELOPMENT OF CARDO ROMA,** AUTOGRAPH COLLECTION
- **REDEVELOPMENT OF THE CARLTON,** MILAN

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HOTELS

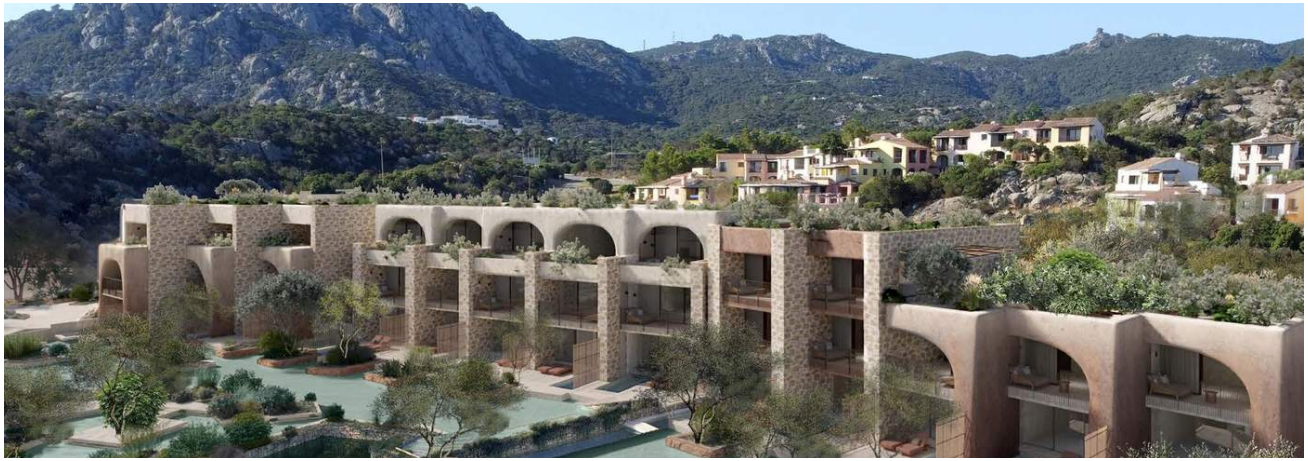
Mama Shelter Hotel

ROME

The Mama Shelter Hotel is located in central Rome, within a particularly lively urban setting characterised by heavy road traffic. The combination of guest rooms, public areas and food-and-beverage spaces called for careful acoustic design, aimed at protecting guest comfort and allowing the different activities in the building to coexist.
ARSolution carried out the acoustic impact assessment of the external noise sources and the analysis of acoustic comfort in the public areas, with particular attention to the restaurant area.
The consultancy also covered the sound insulation of the guest rooms, both from the other spaces within the hotel and from external noise. Particular care was given to façade sound insulation, a key element given the central location of the hotel and the high noise levels generated by city traffic.

CLIENT	**Artelia** End client: Grape Hospitality Rome Vatican S.r.l.
LOCATION	Rome, Via Luigi Rizzo 20/22, Italy
PERIOD	2018-2022
PROJECT VALUE	€ 19 M (source: main contractor)

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HOTELS

Le Palme Hotel

ARZACHENA COSTA SMERALDA

The project concerns the redevelopment of Hotel Le Palme, a property at Liscia di Vacca in the municipality of Arzachena, in a privileged position a short walk from the sea and in the heart of the Costa Smeralda. The scheme converts the complex into a luxury resort of 64 rooms and suites, set harmoniously within the Sardinian coastal landscape.

ARSolution carried out the study of noise generated by the building services, with the aim of achieving sound levels consistent with the high standard of the property and with the particular sensitivity of its setting. The consultancy also covered the acoustic comfort of the interiors, with particular attention to the lobby and the guest rooms. The acoustic solutions were developed in coordination with the interior design, seeking full integration with the selected materials and finishes so as to combine technical performance, comfort and visual quality.

CLIENT	**Artelia** End client: Prelios SGR S.p.a.
LOCATION	Liscia di Vacca, Porto Cervo Arzachena (SS), Italy
PERIOD	2023, ongoing
PROJECT VALUE	€ 50 M (source: Pro Iter Group)

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HOTELS

Redevelopment of Cardo Roma, Autograph Collection



© Cardo Roma, Autograph Collection. Photo: Bradley Quinn Photography

ARSolution provided the acoustic consultancy for the public areas and the guest rooms, carrying out baseline sound level surveys and both concept and detailed acoustic design. The assessments covered airborne and impact sound insulation between guest rooms, vertical and horizontal partitions and doors, together with the identification of acoustic bridges and flanking transmission paths through the building services.

The commission also included defining the construction solutions and remedial measures required to meet the requirements of the Italian Prime Ministerial Decree of 5 December 1997 and the Autograph Collection standards, the review of materials and construction systems, specialist support for the construction of the sample rooms and the assessment of noise emissions from the building services components.

The predictive acoustic impact assessment of the new external noise sources was also developed, together with simulations of the acoustic response of the sound systems serving the meeting rooms and the spa.

CLIENT	**Altair Immobiliare S.r.l.**
LOCATION	Rome, EUR district, Italy
PERIOD	2019-2022
PROJECT VALUE	Confidential

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HOTELS

Redevelopment of The Carlton

MILAN



© Rocco Forte Hotels. Photo: Mattia Aquila

The project involved the complete redevelopment of the historic Hotel Baglioni, in Milan's Quadrilatero della Moda, subsequently converted into The Carlton Milano, a five-star luxury hotel of the Rocco Forte Hotels group. The property, with entrances from via Senato and via della Spiga, comprises 71 rooms and suites, restaurants, bars, a winter garden, public areas and a spa. The scheme reinterprets the identity of the historic hotel through a contemporary language, while preserving the elegant, residential character of the building. ARSolution carried out the predictive acoustic climate and acoustic impact assessment under Italian Law no. 447 of 26 October 1995, by means of a 24-hour measurement campaign covering both daytime and night-time periods. The analysis addressed the existing acoustic climate and the emissions produced by the new building services towards the surrounding receptors, together with the definition of the mitigation measures required. The commission also included the predictive assessment of the passive acoustic requirements under the Prime Ministerial Decree of 5 December 1997 and the study of the solutions needed to ensure adequate acoustic comfort. The performance of partitions, façades and floor slabs was analysed, verifying sound insulation between guest rooms, insulation against external noise and impact sound levels, with the preparation of the corresponding design and improvement proposals.

CLIENT	**Artelia** End client: Reale Immobili S.p.A.
LOCATION	Milan, via Senato 5-7, Italy
PERIOD	2021-2022
PROJECT VALUE	€ 60 M

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CORPORATE OFFICES

- **EUR TOWERS,** ROME
- **ENEL HEADQUARTERS,** ROME
- **ALLIANZ TRADE,** ROME

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CORPORATE OFFICES

EUR Towers

ROME

The EUR Towers form one of the most recognisable office complexes in the EUR district of Rome. Designed by Cesare Ligini and built in the early 1960s, they stand on Viale Europa, in a strategic position between Via Cristoforo Colombo, Viale America and the EUR lake.

The restoration and conservation works cover the three main towers and the lower buildings of the complex, with the aim of converting them into a modern office hub with high environmental and energy performance and a strong focus on occupant wellbeing, in line with the LEED, WELL and WiredScore protocols.
ARSolution was responsible for the acoustic design of the interiors, developing solutions aimed at meeting the requirements of the WELL protocol and at creating comfortable, functional workspaces.
The commission also included modelling of the acoustic impact on the external environment, support to the construction supervision team during the works and the final acoustic testing required to verify that the specified design performance had been achieved on site.

CLIENT	**Artelia** End client: Alfiere S.p.A. CDP Real Asset SGR
LOCATION	Viale Europa 242, Rome, Italy
PERIOD	2024 – 2026
PROJECT VALUE	€ 225 M

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CORPORATE OFFICES

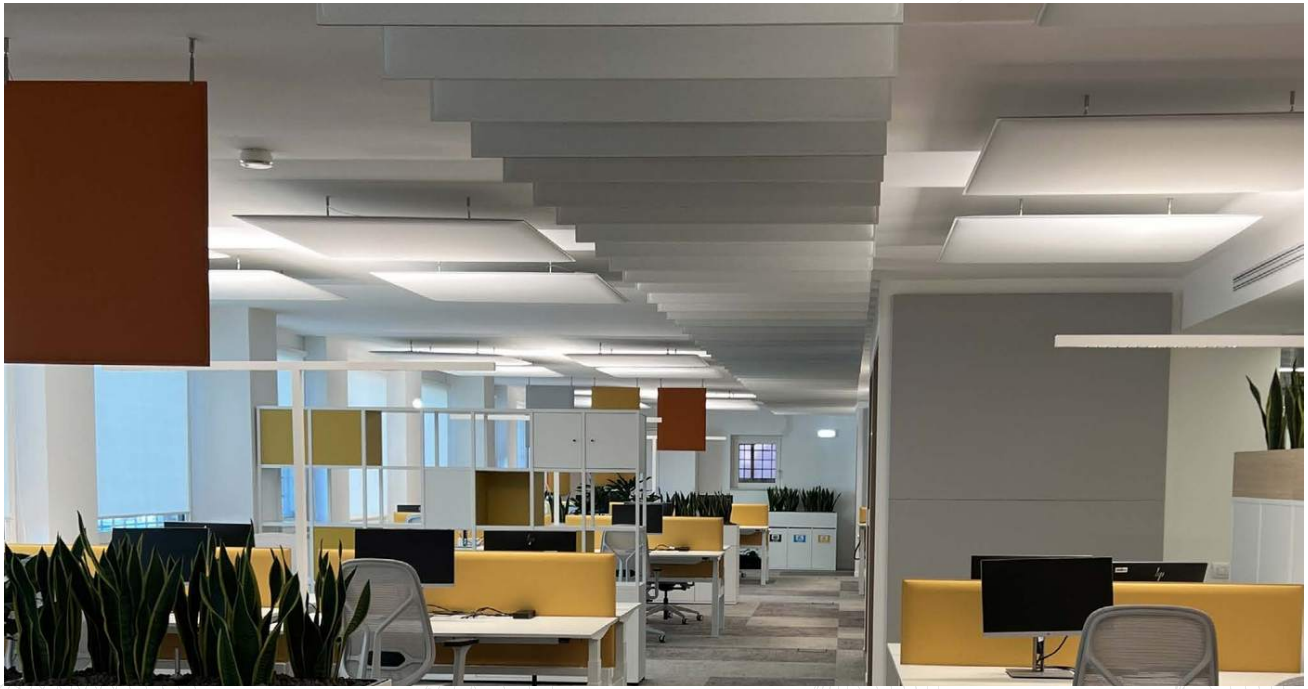
ENEL headquarters

ROME

The ENEL headquarters occupies an entire city block on Viale Regina Margherita, in the Trieste district of Rome. The project covers an office complex of approximately 80,000 m², made up of seven buildings dating from the 1960s and undergoing complete architectural, functional and building services refurbishment. The scheme, designed by ACPV Architects Antonio Citterio Patricia Viel, turns the complex into a contemporary workplace with flexible spaces, indoor and outdoor green areas and facilities dedicated to the wellbeing of the people who use it, in line with LEED and WELL certification standards. Under the commission awarded by Artelia Italia, ARSolution carried out the review and validation of the detailed acoustic design developed by the general contractor. The work included the review of the noise control solutions integrated into the architectural and building services designs, with particular attention to the spaces and activities presenting the most demanding acoustic conditions. During construction, ARSolution provided specialist support to the construction supervision team, checking samples, certificates, materials and systems specified for the project. The commission also included site inspections during the most sensitive stages of the works, the definition of solutions for unforeseen works, the control of noise emissions from the building services and interim acoustic testing to verify the passive acoustic requirements of the buildings on site.

CLIENT	**Artelia** End client: Enel S.p.A.
LOCATION	Rome, Viale Regina Margherita 125/137, Italy
PERIOD	2020, ongoing
PROJECT VALUE	€ 241 M (source: Colombo Costruzioni Enel Headquarters)

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CORPORATE OFFICES

Allianz Trade

ROME

The new Rome office of Allianz Trade, formerly Euler Hermes, is the result of the complete refurbishment of one building within an office complex on Via Raffaello Matarazzo. Opened in April 2025 and designed to accommodate around 300 staff, the office follows the Allianz New Work Model, with flexible workstations, technologically equipped meeting rooms, common areas, breakout spaces and indoor planting. ARSolution provided the acoustic consultancy for the project, developing and verifying the solutions needed to achieve appropriate levels of sound insulation, speech privacy and comfort in the working environment. The work was coordinated with the flexible office layout and with the requirements of the meeting rooms and shared spaces, contributing to the performance standards set by the LEED BD+C v4 Gold and WELL v2 Gold protocols.

CLIENT	**PORFIRI ARCHITECTS SRL** End client: Allianz Trade
LOCATION	Via Raffaello Matarazzo 19, Rome, Italy
PERIOD	2025
PROJECT VALUE	€ 7.7 M

PURSUING LEED CERTIFICATION

WELL v2
PERCORSO AVVIATO NEL 2025
OBIETTIVO PROGETTUALE: GOLD

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HOSPITALS AND HEALTHCARE FACILITIES

- **MULTIPURPOSE HEALTH AND SOCIAL CARE CENTRE AND OUTPATIENT CLINIC, “BROCHEREL” DIAGNOSTIC CENTRE,** AOSTA
- **REFURBISHMENT OF THE EMERGENCY DEPARTMENT,** MOLINETTE HOSPITAL, TURIN
- **COMMUNITY HEALTH CENTRE, FORMER MARCO ANTONETTO INSTITUTE,** TURIN

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HOSPITALS AND
HEALTHCARE FACILITIES

MULTIPURPOSE HEALTH AND SOCIAL CARE CENTRE AND OUTPATIENT CLINIC, "Brocherel" diagnostic centre

AOSTA (AO)



© Source: ParmaDaily.it

The project covers the completion and refurbishment of the Brocherel Centre in Aosta, a complex of approximately 6,000 m² bringing together residential, day care, outpatient and diagnostic services. The facility will provide 68 beds arranged in three units for the care of dependent elderly people, a day centre for 25 users and an outpatient and diagnostic centre of approximately 750 m², to be operated by the Valle d'Aosta Local Health Authority. The scheme involves the reorganisation of the existing spaces, the construction of a new wing on the north elevation, the installation of a new bed lift and the improvement of internal and external circulation.

The works also include structural and fire safety upgrading, energy refurbishment of the building envelope and the installation of high-efficiency electrically powered systems, supported by a rooftop photovoltaic installation. ARSolution carried out the predictive acoustic impact assessment, analysing the noise emissions from the mechanical services and verifying their compatibility with the noise limits applicable at the surrounding receptors. The commission also included the design of the passive acoustic requirements of the building, with reference to the Prime Ministerial Decree of 5 December 1997 and to the Minimum Environmental Criteria (CAM). The assessments covered the sound insulation of façades, vertical partitions and floor slabs, comfort in noise-sensitive spaces and the control of noise from continuously and intermittently operating building services.

CLIENT	**MCM Ingegneria and Arch. Alessio Gotta** End client: Consorzio Zenit Sociale S.c.s.
LOCATION	Aosta (AO), Italy
PERIOD	2024-2025
PROJECT VALUE	€ 13.9 M

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HOSPITALS AND HEALTHCARE FACILITIES

REFURBISHMENT OF THE EMERGENCY DEPARTMENT, MOLINETTE HOSPITAL TURIN (TO)

The project concerns the functional refurbishment and regulatory upgrading of the Emergency Department of the Molinette Hospital in Turin, through the adaptation of clinical spaces, internal circulation and building services. The works also cover the areas dedicated to interventional radiology, emergency surgery, vascular surgery and short-stay observation.

The works are organised in successive phases, so that the Emergency Department remains operational throughout. The reorganisation is aimed at improving safety, the efficiency of patient and staff flows and the quality of the environments used by patients and healthcare staff.

Within the Technical and Economic Feasibility Design (PFTE), AR-Solution was responsible for the acoustic component of the project. The commission included the predictive acoustic climate and acoustic impact assessment of the new building services, and the verification of the passive acoustic requirements of the building with reference to the Prime Ministerial Decree of 5 December 1997 and to the Minimum Environmental Criteria for public buildings. The analyses covered partitions, floor slabs, building services and acoustic comfort conditions in the clinical spaces.

CLIENT	**Techproject S.r.l., Studio Corona** End client: A.O.U. Città della Salute e della Scienza di Torino
LOCATION	Turin (TO), Italy
PERIOD	2025-2026
PROJECT VALUE	€ 13.5 M

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HOSPITALS AND HEALTHCARE FACILITIES

COMMUNITY HEALTH CENTRE

Former Marco Antonetto Institute

TURIN (TO)

The project involved the conversion of the former Marco Antonetto Institute, in the Lucento Vallette district of Turin, into a modern community health centre and outpatient clinic. The building, covering approximately 3,170 m², houses specialist, diagnostic, counselling, rehabilitation and administrative services arranged over several levels.

ARSolution carried out the on-site acoustic testing of the building with reference to the Prime Ministerial Decree of 5 December 1997 and to the Minimum Environmental Criteria.

The work, carried out between November 2025 and June 2026, included measurements of the sound insulation of façades and internal partitions, of impact sound levels, of building services noise and of reverberation times in representative rooms.

CLIENT	**SCR Piemonte S.p.A.**
LOCATION	Turin (TO), Italy
PERIOD	2025-2026
PROJECT VALUE	€ 10.8 M

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PORTS, AIRPORTS, TRANSPORT AND DEFENCE

- **IFTS, INTERNATIONAL FLIGHT TRAINING SCHOOL,** DECIMOMANNU (CA)
- **PORT OF GIOIA TAURO,** MEDCENTER CONTAINER TERMINAL
- **PIAZZALE KENNEDY,** WATERFRONT DI LEVANTE, GENOA
- **NEW COTRAL BUS DEPOT,** SUBIACO (RM)
- **ROAD TRAFFIC NOISE MONITORING,** VIA DEL FORO ITALICO, ROME

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PORTS, AIRPORTS,
TRANSPORT AND DEFENCE

IFTS - International Flight Training School
DECIMOMANNU (CA)

The project covers the Training Area of the International Flight Training School, built at the Decimomannu military air base, in the province of Cagliari. Created through the partnership between the Italian Air Force and Leonardo, the campus is an international centre for the advanced training of pilots destined for fourth- and fifth-generation combat aircraft. The complex extends over an area of approximately 130,000 m², of which around 35,000 m² are covered, and includes the Ground Based Training System, with latest-generation flight simulators, classrooms and technical rooms, together with hangars, the flight line, logistics and maintenance facilities and accommodation.

ARSolution provided the acoustic consultancy for the detailed design of the Training Area. The work included the review of the architectural and building services design, the identification of the main critical issues and the definition of the construction build-ups and detailing required to achieve the specified sound insulation levels.

Particular attention was given to the simulator rooms, the computer rooms and the instructor console areas. For the rooms housing the compressor units, characterised by high noise emission levels, high-performance insulation solutions fully decoupled from the surrounding structures were developed, so as to limit noise transmission and ensure conditions suited to training activities.

CLIENT	**NEXT-A S.R.L.** End client: Leonardo S.p.A. and the Italian Air Force
LOCATION	Decimomannu (CA), Italy
PERIOD	2020-2023
PROJECT VALUE	€ 74 M (source: Aicom)

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© Port of Gioia Tauro (RC). Photo and aerial photography: Giuseppe Melia, IVI design srl

PORTS, AIRPORTS,
TRANSPORT AND DEFENCE

Port of Gioia Tauro

MEDCENTER CONTAINER TERMINAL

The port of Gioia Tauro is one of the largest and most strategic transhipment hubs in Europe and the Mediterranean, and the leading Italian port for container handling. Thanks to its central position along the international Suez to Gibraltar route, water depths of up to 18 metres and more than 3.3 kilometres of dedicated quays, the port can accommodate the largest container ships in service. In 2025 the terminal handled approximately 4.5 million TEU, setting a new national record. Since 2022 ARSolution has worked for MCT, Medcenter Container Terminal, the container terminal concessionaire and a company controlled by the MSC group through Terminal Investment Limited. The commission covers the periodic monitoring and measurement of the noise and vibration generated by operations, plant and vehicles within the terminal. The instrumental surveys support the assessment of occupational exposure and of the risks to the health and safety of workers, within an infrastructure of exceptional scale where logistics and port operations run continuously.

CLIENT	**MCT, Medcenter Container Terminal S.p.A.,** MSC group
LOCATION	Port of Gioia Tauro (RC), Italy
PERIOD	Since 2022
PROJECT VALUE	Confidential

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PORTS, AIRPORTS,
TRANSPORT AND DEFENCE

Piazzale Kennedy - Waterfront di Levante

GENOA

The Waterfront di Levante is one of the principal urban regeneration schemes in Genoa. Developed from the vision of the Renzo Piano Building Workshop, the project transforms the site of the former Fiera del Mare, rebuilding the relationship between the city and the sea through new canals, public spaces, green areas, cycle and pedestrian routes, housing and services. Piazzale Kennedy is a strategic element of the scheme. The redevelopment provides a linear urban park of approximately 34,000 m², with tree-planted areas, a multifunctional promenade, spaces for outdoor activities, cycle and pedestrian links and an underground car park.
ARSolution carried out the construction noise monitoring, measuring the noise generated by the works and its impact on the surrounding receptors. The work supported the management of the most critical phases and the identification of the mitigation measures required.

CLIENT	**C.S.I., Consorzio Stabile per le Infrastrutture**
LOCATION	Genoa, Piazzale Kennedy, Italy
PERIOD	2024-2025
PROJECT VALUE	€ 23 M

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PORTS, AIRPORTS,
TRANSPORT AND DEFENCE

New COTRAL bus depot

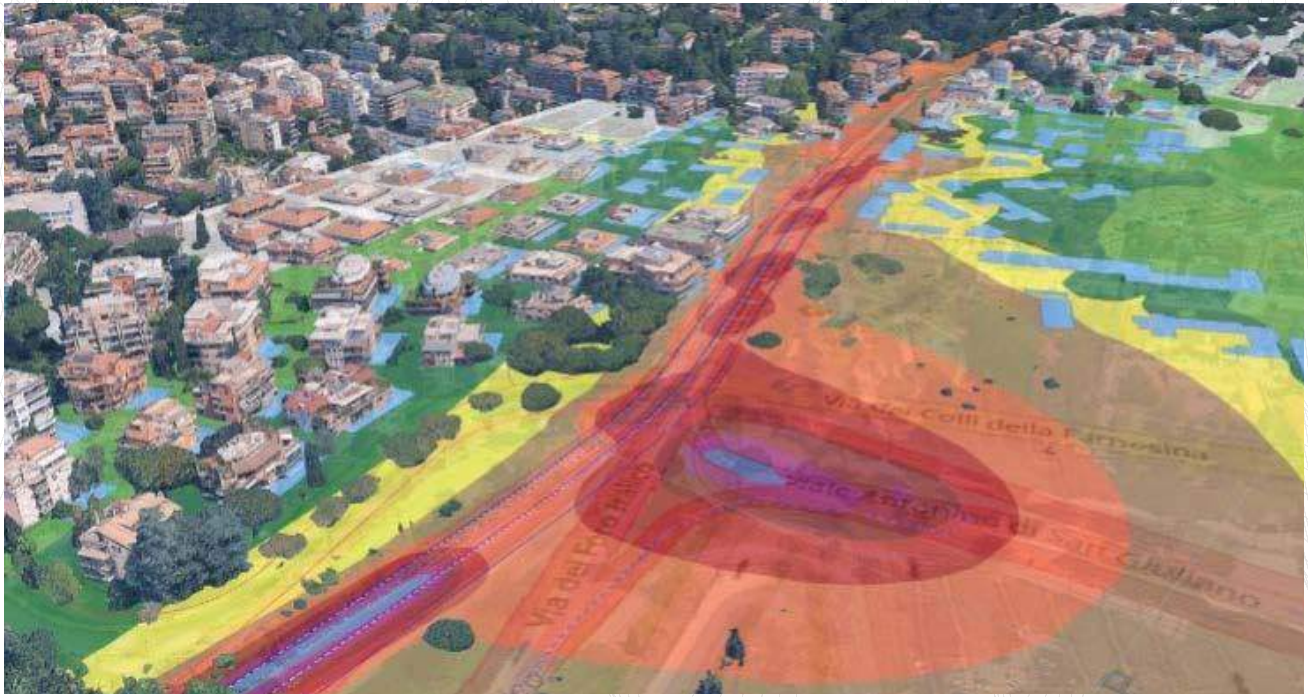
SUBIACO (RM)

The project concerns the construction of the new COTRAL bus depot at Contrada Nocchitella, in the municipality of Subiaco, comprising workshops, administrative offices, staff facilities, a canteen and technical rooms.
ARSolution was responsible for the acoustic design within the developed design stage, verifying the performance of the building partitions and the façade sound insulation of the office and staff areas. The work included the analysis of precast walls, lining walls, polycarbonate surfaces and windows, together with the definition of the solutions required to comply with the Prime Ministerial Decree of 5 December 1997 and with the Minimum Environmental Criteria. The consultancy also covered the predictive assessment of noise from continuously and intermittently operating building services, with particular attention to the air conditioning, ventilation and domestic hot water systems, the plumbing installations and the lift. Recommendations were issued for resilient decoupling and for the control of noise and vibration transmission through the building structure.

CLIENT	**NEXT-A S.R.L.** End client: COTRAL S.p.A.
LOCATION	Subiaco (RM), Italy
PERIOD	2023
PROJECT VALUE	€ 23.7 M

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PORTS, AIRPORTS,
TRANSPORT AND DEFENCE

Road traffic noise monitoring

VIA DEL FORO ITALICO, ROME

The commission concerned the monitoring of noise generated by road traffic along Via del Foro Italico, a major arterial road in the north of Rome.
ARSolution carried out sound level measurements from monitoring positions located at the buildings directly facing the road. The work made it possible to characterise the existing noise environment and to quantify road traffic noise exposure levels at the most affected receptors.

CLIENT	**Ing. Valter Vitaterna** End client: City of Rome
LOCATION	Rome, Via del Foro Italico, Italy
PERIOD	2026
PROJECT VALUE	Confidential

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ENERGY AND RENEWABLE SOURCES

- **NEW DATA CENTRE,** NOVIGLIO (MI)
- **ANGITOLA WIND FARM**
- **“DEDONI” AGRIVOLTAIC PLANT,** SQUILLACE AND MAIDA (CZ)

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ENERGY AND RENEWABLE SOURCES

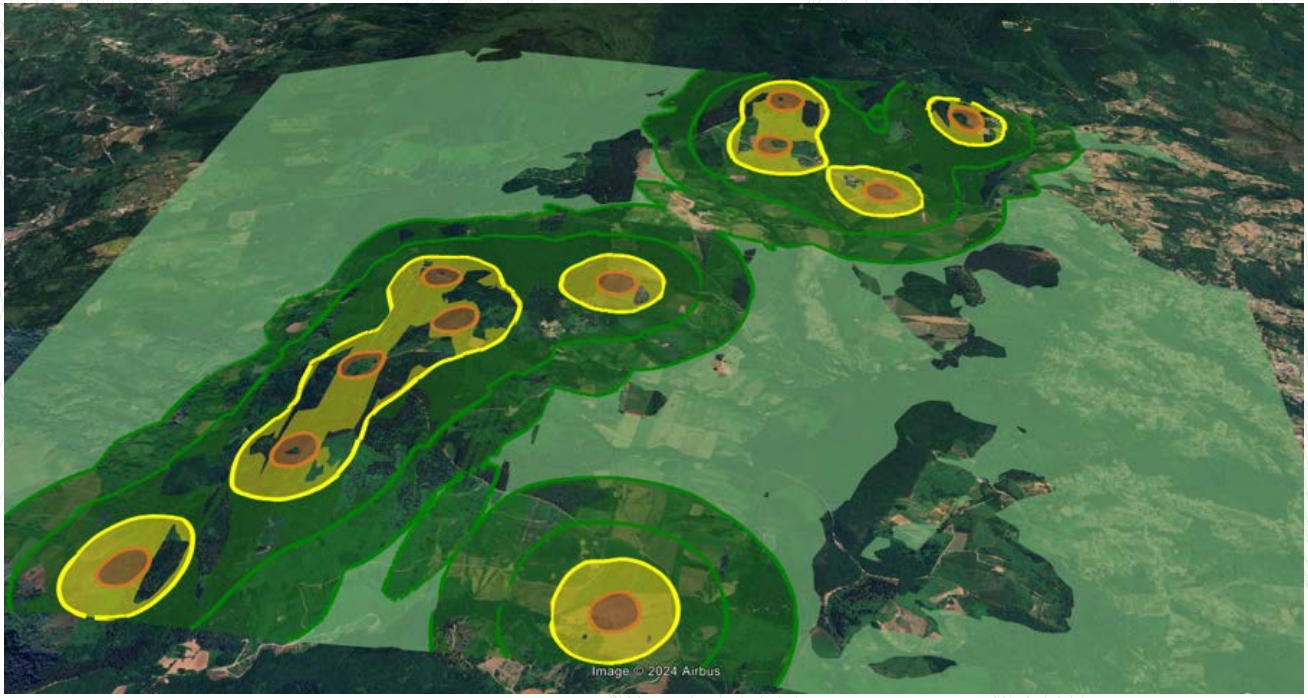
New data centre
NOVIGLIO (MI)

The project concerns the construction of a new data centre at Santa Corinna, in the municipality of Noviglio, within the Milan metropolitan area. The scheme provides a large, high-capacity technology campus, developed over an area of approximately 230,000 m², with buildings housing digital infrastructure and the technical plant required to guarantee operational continuity.
On behalf of TECHBAU, ARSolution carried out the monitoring of noise and vibration generated by construction activities. The surveys made it possible to control the effects of the various operations on the surrounding area, tracking sound and vibration levels over time and identifying critical situations promptly. The work provided technical support to site management and to the protection of the buildings and receptors in the adjacent areas.

CLIENT	**Techbau S.p.A.**
LOCATION	Noviglio (MI), Santa Corinna, Italy
PERIOD	2025-2026
PROJECT VALUE	€ 80 M

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ENERGY AND RENEWABLE SOURCES

Angitola wind farm

The project provides for the construction of a 66 MW wind farm in the inland areas of the provinces of Vibo Valentia and Catanzaro. The farm will consist of 11 wind turbines of 6 MW each, connected to the national grid by buried cabling and new transformer substations.
ARSolution developed the predictive acoustic impact assessment of the installation, carrying out daytime and night-time sound level surveys, short- and long-term measurements and the analysis of the receptors in the area.
A three-dimensional acoustic model was then built to simulate the propagation of noise from the wind turbines. The study assessed the acoustic effects both during operation of the wind farm and during the main construction phases, including turbine erection and the construction of internal access roads. The simulations confirmed compliance with the regulatory limits at the receptors analysed.

CLIENT	**WPD Italia**
LOCATION	Provinces of Vibo Valentia and Catanzaro, Calabria, Italy
PERIOD	2024
PROJECT VALUE	€ 110 M

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ENERGY AND RENEWABLE SOURCES

“DEDONI” AGRIVOLTAIC PLANT
SQUILLACE AND MAIDA (CZ)



The project provides for the construction of the Dedoni Nord and Dedoni Sud agrivoltaic sections in the municipality of Squillace, with a total capacity of 29.27 MWDC / 28.48 MWAC over an area of approximately 35.5 hectares. The scheme also includes a 21 MW / 10.5 MWh BESS storage system and the works for connection to the national grid, with a user substation in the municipality of Maida. ARSolution carried out the predictive acoustic impact assessments of the two installations and of the BESS system. The work included daytime and night-time sound level surveys at the receptors, the characterisation of the noise sources, namely inverters, transformers, cooling systems, batteries and substation equipment, and three-dimensional modelling of noise propagation. The study made it possible to verify the acoustic compatibility of the scheme and compliance with the absolute and differential noise limits during operation.

CLIENT	**Elettrostudio Energia S.r.l.**
LOCATION	Municipality of Squillace (CZ), Calabria, Italy
PERIOD	2025-2026
PROJECT VALUE	€ 40 M

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SCHOOL BUILDINGS AND STUDENT RESIDENCES

- **NEW ART AND MUSIC LYCEUM LICAM,** AOSTA
- **MARZANATI CULTURAL CENTRE AND LELIO BASSO LIBRARY,** TROFARELLO (TO)
- **“SALVO D’ACQUISTO” NURSERY SCHOOL,** NIZZA MONFERRATO (AT)
- **NEW STUDENT RESIDENCES,** NOVARA
- **NEW STUDENT RESIDENCES** FOR THE POLITECNICO DI MILANO

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SCHOOL BUILDINGS
AND STUDENT RESIDENCES

New art and music lyceum

LICAM, AOSTA



The project concerns the replacement of the school building on Via Torino in Aosta, through the demolition of the existing structure and the construction of the new premises of the Art Lyceum and the Music Lyceum, which is also the main site of the LICAM school.
The design proposal aims to deliver a safe, accessible and energy-efficient school, with classrooms, laboratories and specialist spaces suited to contemporary teaching in art and music. ARSolution joined the design team to develop the acoustic aspects of the proposal, which was placed second in the two-stage design competition. The service provided was recognised as equivalent to a Technical and Economic Feasibility Design.

CLIENT	**Autonomous Region of Valle d'Aosta**
LOCATION	Aosta, Italy
PERIOD	2022-2023
PROJECT VALUE	€ 26 M

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SCHOOL BUILDINGS
AND STUDENT RESIDENCES

Marzanati cultural centre and Lelio Basso library

TROFARELLO (TO)

The project involved the restoration, extension and functional reorganisation of the Marzanati Cultural Centre and of the Lelio Basso public library, located close to the “G. Leopardi” school and the “S. Pertini” sports hall. The scheme returned around 850 m² of modern, accessible and energy-efficient space to the community, including an enlarged library and flexible spaces for study, coworking, educational activities, exhibitions and events. A new steel-and-glass canopy connects the library to the historic building, creating a central space for meeting and gathering.

ARSolution was responsible for the entire acoustic design of the scheme, from the acoustic climate and acoustic impact assessment to the verification of the passive acoustic requirements of the buildings under the Prime Ministerial Decree of 5 December 1997. The consultancy also covered the application and verification of the Minimum Environmental Criteria (CAM) relating to acoustic performance, ensuring appropriate comfort conditions in the spaces intended for study, culture and community activities.

CLIENT	**TECSE Engineering studio Associato** End client: Municipality of Trofarello
LOCATION	Trofarello, Turin, Italy
PERIOD	2025
PROJECT VALUE	€ 2.9 M

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SCHOOL BUILDINGS
AND STUDENT RESIDENCES

"Salvo D'Acquisto" nursery school

NIZZA MONFERRATO (AT)

The project provides for the demolition and reconstruction of the existing nursery school, which presented significant structural, seismic, energy and functional shortcomings. The new building houses seven nursery school classes and one toddler class, making it one of the principal early years facilities in Piedmont. ARSolution carried out the acoustic climate and acoustic impact assessment and the design of the passive acoustic requirements of the building. Particular attention was given to the performance required by the Minimum Environmental Criteria (CAM) and by standard UNI 11532, which are essential to ensuring appropriate acoustic comfort in classrooms and learning spaces.

CLIENT	**TECSE Engineering studio Associato** End client: Municipality of Nizza Monferrato
LOCATION	Nizza Monferrato, Asti, Italy
PERIOD	2023-2025
PROJECT VALUE	€ 5 M

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SCHOOL BUILDINGS
AND STUDENT RESIDENCES

New student residences

NOVARA

The project provides for the refurbishment and energy upgrading of the former social centre on Viale Giulio Cesare, a 1960s complex to be converted into a modern student residence with 171 beds. The scheme covers an area of approximately 18,000 m² and includes study rooms, a library, a music room, common areas, a cafeteria, a laundry and a fitness area, together with the restoration of the existing green areas and sports facilities. At concept and detailed design stages ARSolution carried out the acoustic climate and acoustic impact assessment and the design of the passive acoustic requirements of the building. The work included the verification of the acoustic criteria set out in the Minimum Environmental Criteria (CAM), with particular reference to the acoustic classification of dwelling units under standard UNI 11367.

CLIENT	**NEXT-A S.R.L.** End client: NOTARIMPRESA S.p.A.
LOCATION	Novara (NO), Viale Giulio Cesare, Italy
PERIOD	2025, ongoing
PROJECT VALUE	€ 14.6 M

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SCHOOL BUILDINGS
AND STUDENT RESIDENCES

New student residences for the Politecnico di Milano



The project involved the completion of two student residences of the Politecnico di Milano, previously built up to structural level, together with their upgrading to current technical and regulatory standards. The buildings include the “Marie Curie” student residence on piazzale Ferrara, opened in 2023. Covering approximately 6,800 m², it provides 213 beds and includes apartments, single and double rooms, study rooms, a gym, a laundry, a music room and common areas for social activities.

ARSolution provided the contractor with specialist support for the detailed acoustic design, assisting in the definition of the construction solutions required to achieve the specified performance. On completion of the works, on-site acoustic testing was carried out to verify the passive acoustic requirements under the Prime Ministerial Decree of 5 December 1997 and the acoustic criteria set by the Minimum Environmental Criteria (CAM).

CLIENT	**NEXT-A S.R.L.** End client: Politecnico di Milano
LOCATION	Milan (MI), Italy
PERIOD	2025
PROJECT VALUE	€ 12 M

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SPORT

- **STELVIO SKI CENTRE,** MILANO CORTINA 2026
- **“MAGNA GRECIA” TENNIS CENTRE, TARANTO**, MEDITERRANEAN GAMES 2026
- **ERACLE SPORTS CENTER**, SAN FERMO DELLA BATTAGLIA
- **NEW PUBLIC SWIMMING POOL**

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SPORT

Stelvio Ski Centre

MILANO CORTINA 2026

Built at Bormio, in the province of Sondrio, the Stelvio Ski Centre is the new facility located in the finish area of the celebrated Stelvio piste, which hosts the men's Alpine skiing events and the ski mountaineering events of the Milano Cortina 2026 Olympic and Paralympic Winter Games. The project, developed by the team led by NEXT-A together with Giuppani Ingegneria and GiB Studio, comprises two new buildings and the landscaping of the external areas: the Hospitality Lounge, used during the Games by technical staff, timekeepers, media and official guests, and the Family Lounge, a flexible glazed space whose roof is designed to carry removable stands for around 2,000 spectators. After the Olympic event, the buildings can be converted into multipurpose spaces serving the municipality and the local community.
ARSolution supported NEXT-A in developing the acoustic design, verifying the passive acoustic requirements of the buildings, building services noise and the acoustic comfort of the interiors, with particular attention to the spaces intended for hospitality, technical staff and guests.

CLIENT	**NEXT-A S.R.L.** Design team: NEXT-A, Giuppani Ingegneria and GiB Studio
LOCATION	Bormio (SO), Italy
PERIOD	2025
PROJECT VALUE	€ 12.9 M

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SPORT

“Magna Grecia” tennis centre

TARANTO

Mediterranean Games 2026

The project concerns the upgrading and refurbishment of the “Magna Grecia” tennis centre in Taranto, which will host the competitions of the XX Mediterranean Games 2026. The scheme goes beyond preparing the facility for the international event, and aims to give the city a modern, accessible sports hub for permanent community use. The new complex comprises eight regulation-size floodlit tennis courts, three for competition and five for training, with stands for a total of 1,500 spectators. New changing rooms are also provided, together with a modern clubhouse complete with a medical room, offices, catering areas and facilities for athletes and the public. The external works include pedestrian routes, parking, green areas and accessible recreational spaces. ARSolution carried out the predictive acoustic impact assessment of the scheme, modelling the sports centre and the surrounding urban context with specialist software. The analysis made it possible to study the propagation of noise generated by sporting activities, to estimate sound levels at the most exposed receptors and to verify the acoustic compatibility of the development with the applicable regulatory limits.

CLIENT	**Architetto Paolo Pettene & Partners S.T.P. S.r.l.** End client: Extraordinary Commissioner for the XX Mediterranean Games 2026
LOCATION	Taranto (TA), Italy
PERIOD	2025 - 2026
PROJECT VALUE	€ 7.3 M

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SPORT

Eracle Sports Center

SAN FERMO DELLA BATTAGLIA

The Eracle Sports Center, at San Fermo della Battaglia in the province of Como, is the result of the complete refurbishment and extension of the existing sports campus. Commissioned by the sports club of Gianluca Zambrotta, the complex covers approximately 16,500 m² and is conceived as a multi-sport centre and a meeting place for athletes, young people and families. The campus brings together a wide range of indoor and outdoor activities: swimming pools, a multipurpose sports hall, a fitness centre, football, five-a-side football, tennis, padel and beach volleyball courts. The offer is completed by changing rooms, classrooms, a clubhouse, a restaurant, a cafeteria, a wellness area and spaces for children. The architecture, characterised by lightweight structures, tensile roofs and innovative technical solutions, has produced a model described by Studio Pettene as a technological incubator for sport. In 2019 the project received the First Prize for design quality in the sports facilities category. Nicolino Armocida of ARSolution carried out the predictive acoustic impact assessment of the scheme. The main challenge was the introduction of the noise sources associated with the building services of the centre into a setting characterised by low ambient noise levels. The analysis made it possible to verify sound levels at the surrounding receptors and to identify the solutions required to ensure the acoustic compatibility of the development.

CLIENT	**Architetto Paolo Pettene & Partners S.T.P. S.r.l.** End client: SSD Young Boys S.r.l.
LOCATION	San Fermo della Battaglia (CO), Italy
PERIOD	2010-2014
PROJECT VALUE	Confidential

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SPORT

New public swimming pool

The new swimming pool at Porlezza, in the province of Como, stands within the municipal school and sports campus, in a landscape setting overlooking Lake Lugano. The facility is designed to offer sporting, recreational and educational activities throughout the year. A defining feature of the scheme is the motorised telescopic roof, made up of four moving sections, which allows the pool hall to be converted from indoor to open-air during the summer season. The multipurpose pool measures 36.75 × 12.50 metres overall and is divided into an area for swimming and water polo, fitted with a movable bulkhead, and a recreational area of varying depth. The complex also includes changing rooms, facilities, offices, plant rooms, a foyer and a cafeteria overlooking the pool. Particular attention was paid to energy efficiency, through photovoltaic and solar thermal systems, heat pumps and a ground-source system.

ARSolution carried out the predictive acoustic impact assessment of the scheme by building a three-dimensional calculation model of the facility and its surroundings. The modelling made it possible to simulate the propagation of noise from activities and building services, verifying its effect at the most exposed receptors and its compatibility with the applicable noise limits.

CLIENT	**Architetto Paolo Pettene & Partners S.T.P. S.r.l.** End client: Municipality of Porlezza
LOCATION	Porlezza (CO), Italy
PERIOD	2018-2021
PROJECT VALUE	€ 5 M

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CULTURE, MUSEUMS AND THEATRES

- **MEDITERRANEAN CULTURAL GATE**, FORMER CINEMA ORCHIDEA, REGGIO CALABRIA
- **“VINCENZO SCARAMUZZA” MUNICIPAL THEATRE**
- **MUSEUM OF THE WHITE WAR,** FORMER PEDRANZINI BARRACKS
- **CASA DELLA III ARMATA**, DISTRIBUTED MEMORIAL OF THE GREAT WAR
- **PALAZZO PIOZZO DI** ROSIGNANO

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CULTURE, MUSEUMS AND THEATRES

Mediterranean Cultural Gate Former Cinema Orchidea

REGGIO CALABRIA

The project provides for the redevelopment of the historic Cinema Orchidea in Reggio Calabria, opened in 1951 and for more than thirty years an important gathering place for the city. The building, on Lungomare Falcomatà, is being converted into the Mediterranean Cultural Gate, a new contemporary cultural hub open to the community. The scheme includes flexible spaces for performances, film screenings, exhibitions, music and events, together with a multipurpose hall, recording studios, museum areas and artistic workshops.

As part of the temporary grouping of professionals with Raffaele Sarubbo Atelier, ARSolution was responsible for the entire acoustic design of the scheme. The work included the acoustic impact assessment, the verification of the passive acoustic requirements of the building and the study of room acoustics, with particular attention to the multipurpose hall and the recording studios, spaces with specific sound insulation and sound quality requirements.

CLIENT	**RTP with Raffaele Sarubbo Atelier** Client: Municipality of Reggio Calabria
LOCATION	Reggio Calabria, Lungomare Falcomatà, Italy
PERIOD	2024, ongoing
PROJECT VALUE	€ 4 M

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CULTURE, MUSEUMS AND THEATRES

Municipal Theatre “Vincenzo Scaramuzza”



The project concerned the conservation and functional conversion of a historic building in Crotone, whose original core dates from the nineteenth century and which formerly housed the city hospital. The works preserved the parts of greatest historic value, integrating them with new spaces for theatre, music, cultural and educational activities.

The theatre is arranged over three levels and seats around 550 people between stalls and gallery. The building includes a foyer, dressing rooms, teaching rooms and a fly tower with two stages, one facing the auditorium and one for open-air performances.

The stalls were created within the former arcaded courtyard, subsequently roofed and treated with shaped elements serving an acoustic function. Appointed by the main contractor, ARSolution provided the specialist consultancy for the room acoustics of the theatre, selecting and specifying the acoustic materials and finishes. The work was aimed at controlling reverberation and achieving listening conditions suited to the different configurations of the hall and to the theatrical and musical programme.

CLIENT	**Essebi Costruzioni di Salvatore Baffa S.r.l.** Client: Municipality of Crotone
LOCATION	Crotone, via Ercole Scalfaro, Italy
PERIOD	2022-2024
PROJECT VALUE	€ 11 M

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CULTURE, MUSEUMS AND THEATRES

MUSEUM OF THE WHITE WAR

FORMER PEDRANZINI BARRACKS

The project concerns the conversion of the former Pedranzini Barracks in Bormio into a new home for the Museo della Guerra Bianca in Adamello, dedicated to the history of the First World War on the Alpine front.
The museum route will house the artefacts recovered at the summit of Monte Scorluzzo, at over 3,000 metres above sea level, including more than three hundred objects and an Austro-Hungarian shelter perfectly preserved by the ice, which will be reconstructed inside the building. The works include structural strengthening, roof replacement and the reorganisation of the spaces given over to the exhibition and educational route.
ARSolution was responsible for the acoustic impact assessment and for the design verification of the passive acoustic requirements of the buildings, contributing to the definition of the solutions needed to ensure the acoustic compatibility of the scheme and appropriate sound insulation performance.

CLIENT	**NEXT-A S.R.L.** End client: ERSAF, Regional Agency for Agriculture and Forestry Services
LOCATION	Bormio (SO), Italy
PERIOD	2021, ongoing
PROJECT VALUE	€ 2.6 M

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CULTURE, MUSEUMS AND THEATRES

CASA DELLA III ARMATA

DISTRIBUTED MEMORIAL OF THE GREAT WAR

The project concerns the conservation and redevelopment of the Casa della III Armata, facing the Redipuglia Military Memorial. The building, home since 1971 to the museum dedicated to the First World War, is being converted into a modern exhibition centre for the conservation and display of weapons, uniforms, documents, photographs and historical records. The scheme combines the restoration of the existing building with new museum and multimedia spaces, a bookshop, a conference hall and a series of external architectural elements. These include the Piazza delle Pietre d'Italia, made up of one stone from every Italian municipality, the Muro Rosso and the panoramic Mirador facing the memorial and the Julian Alps. The new museum route uses immersive installations and multimedia tools to tell the story of the Great War through the personal experiences of soldiers, gathered from letters, diaries and memoirs. The scheme is one of the principal elements of the Memoriale diffuso della Grande Guerra, conceived to connect and enhance the main sites of national remembrance. ARSolution was responsible for the design and verification of the passive acoustic requirements of the building, with particular attention to sound insulation between the different halls. The work supported the definition of the build-ups, materials and construction solutions required to limit noise transmission and prevent sound interference between the museum spaces.

CLIENT	**NEXT-A S.R.L.** Client: Presidency of the Council of Ministers, Ministry of Defence
LOCATION	San Pier d'Isonzo (GO), Redipuglia Memorial area
PERIOD	2022
PROJECT VALUE	€ 5.7 M

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CULTURE, MUSEUMS AND THEATRES

PALAZZO PIOZZO DI ROSIGNANO





The project concerns the regeneration of Palazzo Piozzo di Rosignano, a historic architectural complex in Rivoli, through conservation works aimed at its functional conversion and enhancement. The scheme forms part of the “Torino Metropoli Aumentata: Abitare il Territorio” programme, dedicated to the recovery of historic and cultural heritage.

ARSolution carried out the predictive acoustic impact assessment and the design of the passive acoustic requirements of the building. The assessments were developed with reference to the Prime Ministerial Decree of 5 December 1997 and to the acoustic performance required by the Minimum Environmental Criteria (CAM) for public buildings, supporting the integration of the sound insulation solutions into the restoration design.

CLIENT	**TECSE Engineering studio Associato** End client: Municipality of Rivoli
LOCATION	Rivoli (TO), Italy
PERIOD	2025
PROJECT VALUE	€ 3 M

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FRAMEWORK AGREEMENTS

EUROFERROVIARIA Salcef Group

Framework agreement

Technical support on railway construction sites

Acoustic measurements, monitoring and acoustic impact assessments on railway construction sites

PERIOD
since 2022

SCOPE
ITALY, railway sites, various locations

ADR Ingegneria Aeroporti di Roma

Framework agreement

Airport engineering

Acoustic support at all design stages, acoustic works supervision and sound level measurements

PERIOD
since 2021

SCOPE
Rome Fiumicino Airport, Rome

McDonald's Italia

Framework agreement

Restaurant network

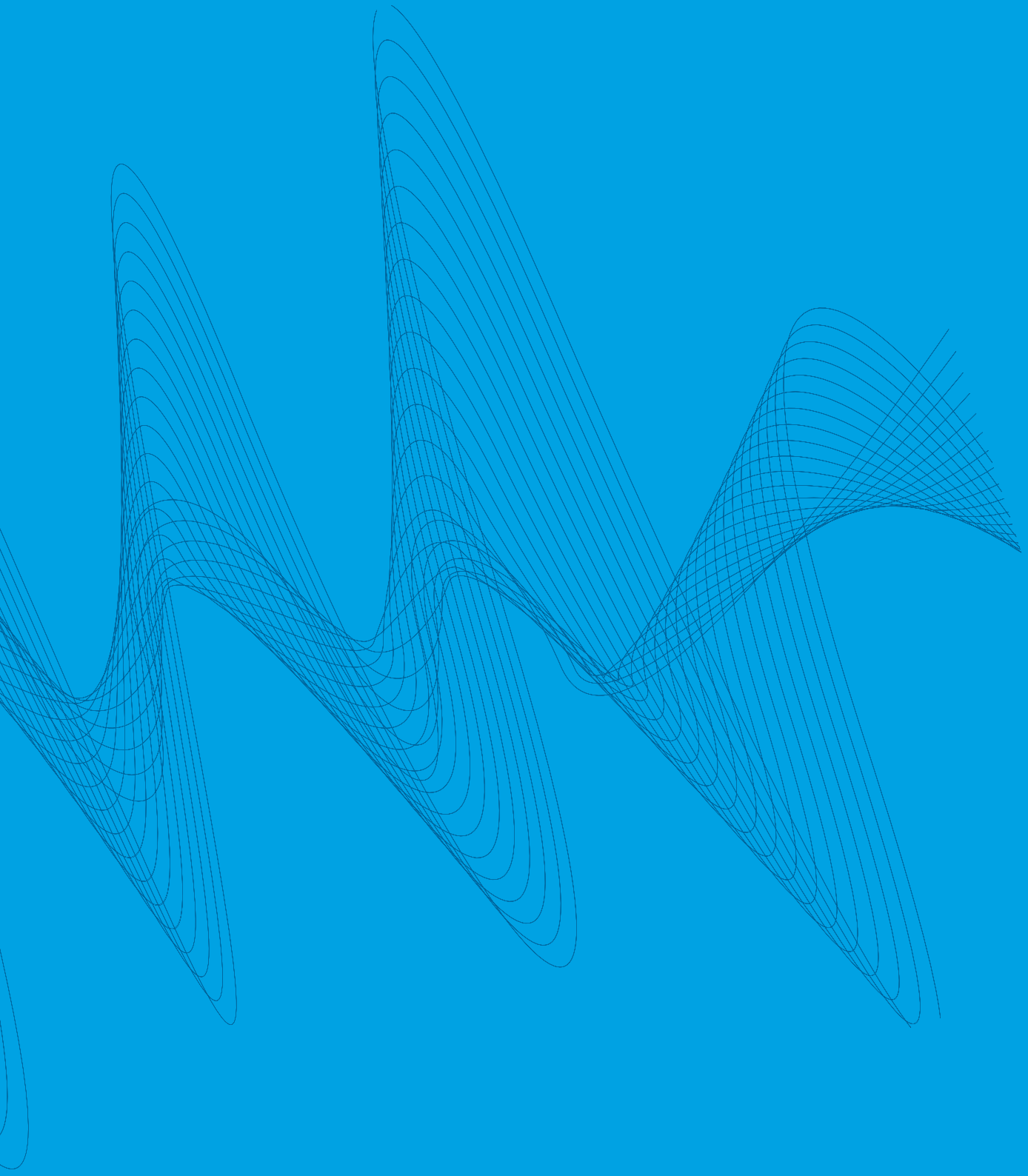
Acoustic impact assessments and sound insulation designs for external equipment such as heat pumps, chillers, flues and drive-through lanes, acoustic support to construction supervision, acoustic commissioning tests

PERIOD
since 2018

SCOPE
ITALY, all regions, various locations

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NOTES



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ISO 9001 : 2015 ISO 14001 : 2015 ISO 45001 : 2018