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- Why Sdi?
A short presentation about who we are and what we can do
Since 1973 is the main Italian company in the field of automation, supervision, control and remote control of highly critical industrial plants.

- Sdi develops, builds and supplies complete DCS, SCADA systems and special application equipments to main Italian players like Eni, SNAM and ENEL Green Power.

- More than 40 years of experience grant the know-how for continue innovation and evolution of Sdi's offer.
Our mission at Sdi S.p.A. is to provide a reliable and technologically advanced answer to every automation need, coming first on innovation path thanks to our eXPert™ platform.

Win your next big challenge with eXPert™
Headquarters - Trezzano s/N (Milano)

(3500 m2 area - Offices and laboratories (Hw and Sw)

- Management, commercial, marketing and accounting offices
- Hardware and Software laboratories, R&D
- Systems pre-building and testing
- Warehouse, after sales and maintenance services

Branch Office - Pisa

- R&D office
- Software and after sales laboratories
Sdi is an independent entity. The paid up capital of €400,000.00 is completely held by company management.

Average turnover of 10M€, increasing in the last years.
Our resources

- 85 employees and collaborators
- Average employees age: 44
- Average working seniority: 17
- All staff employed with permanent contract
- Staff turnover tending to zero
Increased staff numbers
Growth and consolidation of turnover in the last years
+156% in sales volume of eXPert products licenses in the last 5 years *

* = 2014-2018 final sales data comparison
More than **10,000** licenses of our *expert* range products sold directly of via our OEM partners and VARs in the **last 12 years** *

* = sales data for years 2006-2017
**Flexibility & Integration at first place**: we can provide a completely custom solution that meets every control, monitoring and remote control needs.

**Field-proven reliability**: hundreds of applications in the field of oil & gas, power production and distribution, public utilities, water, renewables, transport…

**Our commitment in development**: we invest everyday in improving our solutions, thus creating a strong relationship with the customer.

**Valuable data, everywhere**: we can provide the information you need on every device, anytime.
Quality, Safety and Environment

- Certifications
- Research Laboratory
- Metrological Qualifications

- Quality – UNI EN ISO 9001:2015
- Health and Safety – OHSAS 18001
Sdi’s Research Laboratory is qualified to complete subsidized research projects aimed to technologic innovation of third parties systems and solutions

REGISTER OF APPROVED RESEARCH LABORATORIES of the Italian Ministry of Education, University and Research, art.14 Law 297/99
Certified in accordance to Italian regulations in force

Certification Body: PREFETTO PROVINCIA DI MILANO

“Legal Metrology Competent Body accredited by C.C.I.A.A. (Chamber of Commerce) and by the Prefecture of Milan”
Overview

- Distributed control systems (DCS)
- Remote control systems (SCADA, RTU)
- Simulation and Leak Detection Systems
- Metering skids
- SDI and Industry 4.0
Overview

eXPert™ SCADA
Remote control

eXPert™ DCS
Distributed control

eXPert™ STAR
RTU and controllers

eXPert™ LDS
Simulation and Lead Detection

eXPert™ EMMS
Metering and Custody Transfer

Products and turn-key systems
Highly integrated SCADA platform composed by:
- Software modules of the central system – eXPert™ SCADA
- Field devices (RTU) – eXPert™ STAR range

Disaster Recovery systems

Hot-backup redundancy natively integrated in each module of the SCADA platform
Products

- Over 1,000,000 tags database, featuring multi-level hierarchical structure suitable for geographically distributed systems
- Redundant or single field device communications (GSM, LAN, WAN, wired and wireless)
- Standard communication protocols, certified in accordance with IEC 870.5.101/104, MODBUS, DNP3, etc
- Proprietary protocols management to ensure the complete integration with third parties RTU
Remote control systems - Elements (1-2)

- SCADA server in redundant or single configuration
- Flexible operator stations (HMI) and videowall support
- Engineering workstations
- Historical data storage stations
- Field devices interface modules
- External systems interface modules
- Hardwired and wireless communication manager
- Disaster Recovery architecture manager
- Cyber Security management in accordance to IEC 62351 regulation
- Modular or single-board (RTU) remote control peripherals
- SIL 3 Safety SCADA software (developed in accordance with the “V-model” contained in IEC 61508 standard)
- Safety remote control peripherals (SIL 3 certified RTUs)
- Smart I/O interfaces
- Field bus interfaces
- Sequence of Events RCE/SOE recorders
- Asset Management module
- Optimization modules
Products

- Modular architecture
- Highest reliability and safety levels
  - Hot-Backup redundancy management
  - Hot Insertion Boards (HIB)
  - Diagnostics
  - Safety Integrated Systems (SIL 3) according to IEC 61508 and IEC 61511 standards
  - Cyber Security management in accordance to IEC 62351 regulation
Products

- Alarm Management and Operator Audit Trails from HMI stations and control room videowalls
- LAN / WAN connectivity for field acquisition and remote control centers
- Data interchange with ERP systems granted by relational database management
- Scalability and flexibility of system architecture
  - Over 2048 control nodes
  - Over 1 Million of physical I/O tags
Products

- Modular control nodes
- eXPert™ STAR range programmable controllers
- Smart I/O interfaces
- Fieldbus interfaces
- Smart communication interfaces
- Loop controllers
- F&G - ESD – PSD modules (SIL 3)
Sequence of Events recorders RCE/SOE
Flexible operator interfaces (HMI) and videowall support
Engineering workstation
Historical data storage stations
Asset Management
Plant optimization and advanced control modules
eXPert LDS real-time Leak Detection System based on accurate simulation models derived by SCADA provided data – eXPert™ LDS

Complete integration between real-time SCADA functions and simulation functions

Specific packages for interactive simulators:
- Plant design
- Predictive and corrective maintenance
- Operator training
- Process performance optimization
Complete technical and fiscal metering systems – eXpert™ EMMS

Support for volumetric, venturimetric and ultrasonic measurement principles

Metrological certified body

Interface with EMS (Energy Management System)
  - Data acquisition
  - Enterprise systems data interchange
  - Analysis and accounting
Sdi and Industry 4.0

- Sdi’s eXPert technology is ready for Industry 4.0 thanks to its advanced enabling features

- High performance HMI
- Remote devices wireless connection
- Mobile device interface
- Cyber Security management
- Real-Time data analytics
- Big Data management
• Green Energy
• Traditional Power production
• Power transmission
• Oil & Gas
• Minicipalities, DSOs and Transport
Wind
Solar
Geothermal
Hydro
Energy Storage
Managed power per type:

- Hydro: 17 GW
- Wind: 4.5 GW
- Solar: 2.5 GW
- Geothermal: 1 GW
- Storage: 6 MW

Total: 25 GW
Solutions and Systems

- Thermoelectric plants
- Turbogas plants
- Cogeneration plants
- Waste to Energy plants (WTE)

Traditional Power production
HV/HHV substations
Railway overhead lines substations
MV/LV distribution
Energy Management Systems (EMS)
- Off-shore and On-shore production and treatment
- Storage
- Transport
- Compression
- Distribution
- Technical and Fiscal Metering
Solutions and Systems

- Potable water treatment and distribution
- Waste water treatment and transport
- Solid wastes disposal
- Gas distribution
- Public Lighting management systems
- Rail traffic localization systems
- Complete systems design and supply
- Engineering
- Functional integration of third parties devices
- Commissioning
- On-site maintenance
- Remote assistance and 24/365 standby
- Courses for maintenance and system operators
Services

Complete systems design and supply

- Engineering
- Integration
- Building
- Configuration
- Installation
- Testing
- Commissioning
- Maintenance
Services

Maintenance and support

- Software maintenance
- Hardware maintenance
- Remote assistance
- All-inclusive maintenance contracts
- Stand-by H24 service / 365 dd
- Factory technical support
- On site technical support
- Application-specific training courses
- System operators courses
Research and Development

- Product management
- Custom applications design and development
- Software development
- Hardware development
- Public and private founded research projects
Analysis of technological progresses and enhancements introduced in new hardware and software platforms applied to industrial applications

Constant interaction with customers and experience learning in over 40 years of systems implementation

Identification of new possible features in order to make the systems more and more performing while adhering to operational needs

Participation in innovative projects, carried out in collaboration with leading universities and research institutes
Research and development

- Design and development of engineering software applications
- Design and development of custom hardware devices for automation field
- Custom development based on functional or detail customer specifications
- Support for development of solutions that require certification from third party body
Our customers

- Direct customers
- VAR partners and integrators
Our customers

ENI group

Direct customers

Offshore platforms, gas production and treatment plants remote control system (12 plants and 70 offshore platforms)

Engineering, enhancement and assistance service, H24/365dd stand by

Technical and Legal Metrology integrated system for ENI E&P (25 systems) and data concentrator EMS (SIAM system)

Technical assistance service (H24/365dd stand by) for ENI E&P technical and Legal Metrology integrated system (SIAM system)
Our customers

Direct customers

Worldwide Wind Plants Control and Monitoring Systems (Italy, Romania, Chile, Panama, South Africa, Peru)

Worldwide Photovoltaic Plants Control and Monitoring Systems (Italy, Romania, Chile, Panama, South Africa, Peru)

Country Control Room and centralized HMI for remote supervision of the installed capacity (Romania, Chile, South Africa)

Experimental Energy Storage systems in Catania and Potenza Pietragalla plants
Our customers

Direct customers

New **SCADA** systems for Hydro plants Control Room

- 4 SCADA systems + 3 Disaster Recoverys in hot-backup configuration
- Virtualized HW architecture
- Centralized engineering station
  - Client-Server configuration station
  - IEC 61850 data-model integration
  - Unified configuration for both Main sites and Disaster Recovery sites
- GIS system integration
- High Performance HMI interface
- IEC 60870-5-104 communication protocol with RTUs (IEC 62351 Cyber Security compliant)
Our customers

Direct customers

SNAM Rete Gas group

- SCADA system for Dispatching and Remote Control of Italian Gas Storage sites (8 sites)

- RTU 3G for Remote Control of the Italian Primary Gas Distribution Network (more than 250 RTU)

- RTU RID/PIDA for Remote Control of the Italian National Gas Network (more than 700 RTU)

- DCS systems for Gas Compression Stations and Gas Distribution Network (nodes and lines)

- Technical / Fiscal metering systems and EMMS (Energy Metering & Management System) for 10 Compression Stations (SNAM Rete Gas) and 8 Gas Storage sites (STOGIT)
Design, production and supply of UM Leak devices for leak detection purposes on the national gas distribution network

Design, production and supply of UM Geo devices for geo monitoring of gas distribution infrastructures and assets

Gruppo SNAM
Rete Gas
Direct customers

SERGAZ-SCOGAT (Tunisia)

Dispatching and Remote Control system for TRANSMED-TTPC pipeline (48” - 370 Km):
- N. 2 SCADA systems
- N. 42 pipeline RTUs
- DCS system for the Compression Station of BIKHA
- DCS system for the Compression Station of SBEITLA
- DCS system for the Compression Station of KORBA

TRANSITGAS (Switzerland)

Dispatching, Remote Control and Fiscal Metering systems for TRANSITGAS gas pipeline (48” - 292 Km):
- N. 1 SCADA system
- N. 45 pipeline RTUs
- N. 1 DCS
- N. 1 SCMS (Supervisory, Control and Metering System)
GreenStream (Libya)

Dispatching and Remote Control systems for the underwater **GREENSTREAM** gas pipeline (32” - 520 Km):

- N. 1 SCADA system on Lybian side (Mellitah)
- N. 1 SCADA system on Italian side (Gela)
- Real-Time pipeline **Simulation System**
- Real-Time **Leak Detection System (eXPert LDS)**
Our customers

ENI - Syndial

Direct customers

TAF Remote Control System – Industrial Acquifer Water Treatment system for 18 highly critical industrial sites:

- Central SCADA system
- 18 remote SCADAs
- More than 200’000 remote controlled tags
- Real-Time remote control, high reliability and availability levels granted by eXPert native hot backup redundancy features

May-19

SDI - Company Profile
Our customers

Direct customers

Multiutility A2A

Public Lighting Remote Control System for the city of Milan (600 RTU)

Remote Control System for Electric Power Distribution Network of the city of Milan, MV/LV (700 RTU)

Remote Control System of Methane Gas Distribution Network for the city of Milan (40,000 Tag)

Remote control system of Valtellina hydro power plants

Grosio (428 MW) and Premadio (226 MW) hydro plants Automation and Control Systems
CCL/SCT system: Train Traffic Control System

- 25 departmental SCADAs
- 950 first and second level SCADAs
- More than 600 RTU

INFOSTAZIONI: Automated train traffic information for travellers
Thank you for your attention
Company Profile