

The logo for 'altus' is written in a white, lowercase, sans-serif font. A blue horizontal line is positioned below the letters 't' and 'u', extending from the left side of the 't' to the right side of the 'u'.

altus

DRIVEN BY CHALLENGES

COMPANY PRESENTATION



BUSINESS

To provide technological solutions that offer innovation, productivity and competitiveness, seeking recognition and loyalty.

MISSION

To develop, manufacture and supply equipments and solutions for industrial automation, creating superior value for stakeholders.

VISION

To be a great force in the domestic technology market, acting globally and delivering solutions with excellence.

VALUES



**CUSTOMER
FOCUS**



INTEGRITY



COMPETENCE



**VALUE
CREATION**



INNOVATION



**HAPPY
PEOPLE**

EXCELLENCE IN MANAGEMENT

- Alignment with well-known international management models and practices;
- ISO 9001:2015 (since 1993);
- Use of management excellence methods at strategic, tactical and operational levels.



PRODUCING THE TECHNOLOGY
THAT MOVES THE INDUSTRY FOR

**MORE
THAN 40 YEARS**

OUR PURPOSE IS TO CREATE SOLUTIONS WITH HIGH ADDED
VALUE ENSURING PRODUCTIVITY, SECURITY AND RELIABILITY
TO MOST PROCESSES IN THE INDUSTRY

 **HEADQUARTERS**

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Fonseca, 3101 | São Leopoldo/RS
CEP 93022-715 | +55 (51) 3589-9500
sales@altus.com.br

 **SAPUCAIA DO SUL BRANCH**

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 **SÃO PAULO BRANCH**

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REPRESENTATIVES IN BRAZIL

We count on a broad network of commercial partners all around the country in order to gather all the industrial demands.



MORE THAN 20
SALES REPRESENTATIVES
COVERING THE WHOLE COUNTRY

ALAGOAS • AMAZONAS • BAHIA • CEARÁ • DISTRITO FEDERAL • ESPÍRITO SANTO • GOIÁS
MATO GROSSO • MATO GROSSO DO SUL • MINAS GERAIS • PARÁ • PARAÍBA • PARANÁ • PERNAMBUCO
RIO DE JANEIRO • RIO GRANDE DO NORTE • RIO GRANDE DO SUL • SANTA CATARINA • SÃO PAULO • SERGIPE

CERTIFIED INTEGRATORS

IN BRAZIL

The **Integrators Certification Program** aims to promote and standardize knowledge about the products and solutions offered by Altus. Focusing on the qualification of business partners and customers technical teams, the initiative seeks to reduce risks on the development of automation systems.



KNOW OUR
INTEGRATORS

altus

INTEGRA

**CERTIFIED
INTEGRATORS**

INTERNATIONAL PRESENCE

With important partnerships established in different countries of Europe, Asia and America, Altus seeks to expand its international presence.

NORTH AMERICA

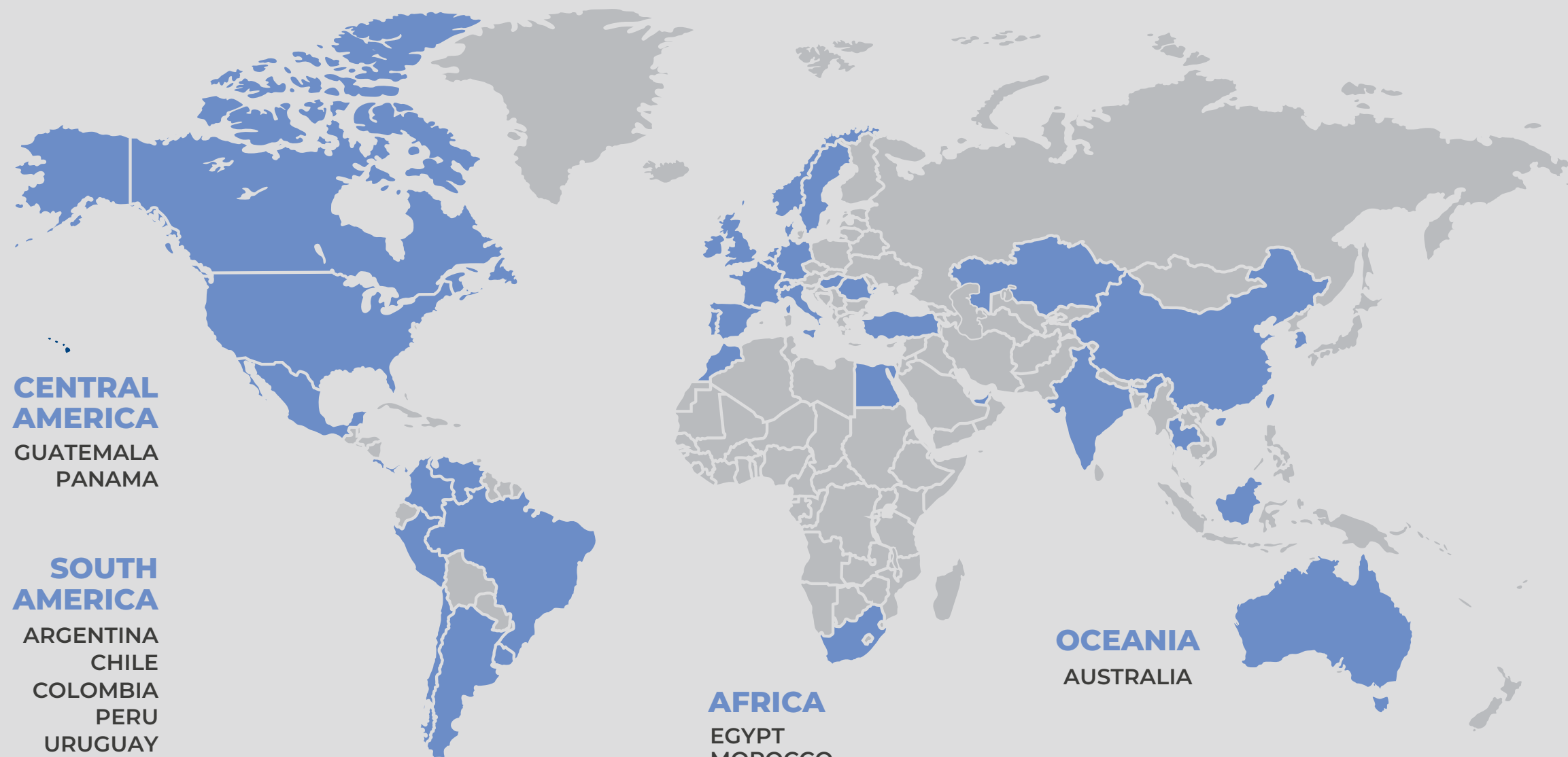
CANADA
MEXICO
USA

CENTRAL AMERICA

GUATEMALA
PANAMA

SOUTH AMERICA

ARGENTINA
CHILE
COLOMBIA
PERU
URUGUAY
VENEZUELA



AFRICA

EGYPT
MOROCCO
SOUTH AFRICA

OCEANIA

AUSTRALIA

EUROPE

ÅLAND
DENMARK
ENGLAND
FRANCE
GERMANY
GREECE
HUNGARY
ITALY
LATVIA
NETHERLANDS
NORWAY
PORTUGAL
ROMANIA
SPAIN
SWEDEN
SWITZERLAND
TURKEY

ASIA

CHINA
INDIA
KAZAKHSTAN
KUWAIT
SINGAPORE
SOUTH KOREA
TAIWAN
THAILAND
UNITED ARAB EMIRATES

STRATEGIC PARTNERSHIPS

We have a long and intrinsic relationship with companies from different countries, mutually serving customers, establishing partnerships with suppliers and even R&D projects.



GERMANY

CODESYS



SWEDEN

BEIJER ELECTRONICS



SWITZERLAND

INNOSUISSE



CHINA

COMRED



INDIA

MESSUNG

PARTNERSHIPS WITH ICTs AND UNIVERSITIES

Since Altus was created during a graduation course at UFRGS university, in 1982, the company has a strong connection with the academic world. Today, we have projects with different universities and technological institutes from north to south of the country.



UFRGS

Universidade Federal do Rio Grande do Sul



UNISINOS

Universidade do Vale do Rio dos Sinos



FURG

Universidade Federal do Rio Grande



UFRN

Universidade Federal do Rio Grande do Norte



FEENG

Fundação Empresa da Escola de Engenharia



FITEC

Fundações de Ciência e Tecnologia



FAURG

Fundação de Apoio a FURG



FAURGS

Fundação de Apoio a UFRGS





MARKETS

SOLUTIONS FOR THE DEMANDS OF ALL MARKETS

- OIL & GAS • INDUSTRY 4.0 • MACHINE MANUFACTURING • AGROINDUSTRY**
- ELECTRICAL POWER • TRANSPORTATION • SANITATION • FOOD**
- BUILDING • LOADING BASE • METALS AND MINING • CHEMICAL**
- SUGAR AND ETHANOL • PULP & PAPER • TEXTILES • MARINE**

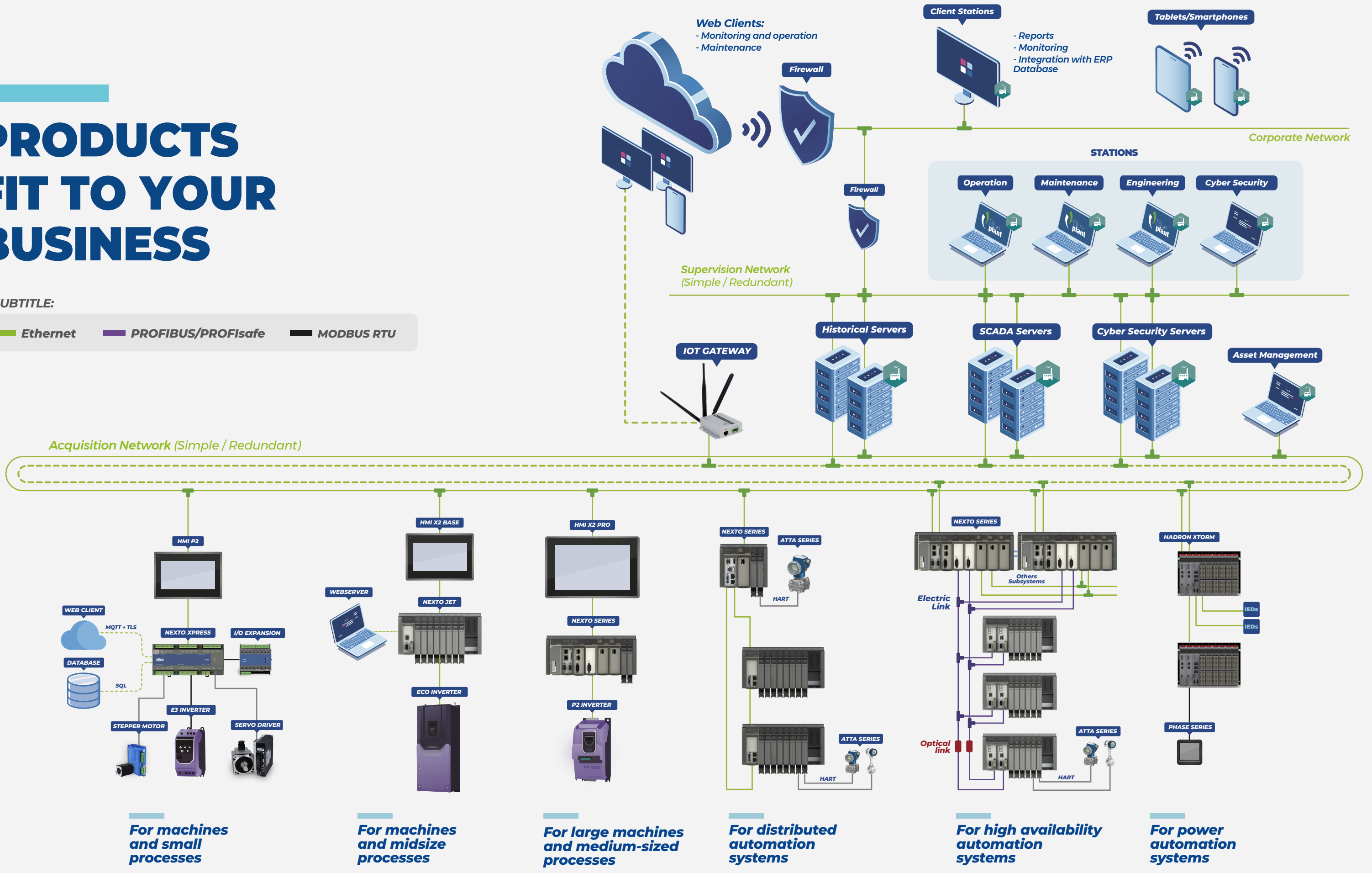
PRODUCTS PORTFOLIO



PRODUCTS FIT TO YOUR BUSINESS

SUBTITLE:

■ Ethernet
 ■ PROFIBUS/PROFIsafe
 ■ MODBUS RTU



For machines and small processes

For machines and midsize processes

For large machines and medium-sized processes

For distributed automation systems

For high availability automation systems

For power automation systems

NEXTO SERIES

PROGRAMMABLE CONTROLLERS

***A COMPLETE
SOLUTION FOR
YOUR APPLICATION***

- From small to large systems, redundant or distributed;
- High reliability for safety instrumented systems;
- Precise diagnostics and compact design;
- Support for MQTT and OPC UA to meet specific demands of Industry 4.0.





NEXTO SERIES

- CPUs and communication networks redundancy;
- Diversity of input and output (I/O) modules;
- Support for MODBUS TCP, MODBUS RTU/TCP, PROFIBUS-DP, PROFINET, EtherCAT, EtherNet/IP, IEC 60870-5-104, MQTT, OPC DA, OPC UA, CANopen and J-1939;
- Hot swapping.

Modern and with high speed, Nexto products use cutting edge technology to deliver reliability and connectivity, contributing to the productivity growth of your business.



NEXTO JET

- High speed digital and analog I/O modules;
- Ideal for small and medium size applications;
- Best cost-effective set for both machines and distributed systems.



NEXTO XPRESS



- Compact Programmable Controller with user webpage, embedded I/Os, ideal for machines and small applications;
- High density of I/Os (up to 43 points in only one product) and Real Time Clock (RTC);
- Ethernet, RS 485, CAN and USB interfaces. Support for MODBUS TCP and RTU, EtherNet/IP, EtherCAT, CANopen e J-1939, IEC 60870-5-104, OPC DA, OPC UA, MQTT (TLS 1.2) and PROFINET.



NEXTO XPRESS



- 3G/4G modem and Wifi adapter support through USB interface;
- Support for PLCopen Motion Control Part 1 function blocks in the XP350 model;
- Datalogger function block for historical data record;
- WebServer support for development of supervision screens in the XP340 model;
- Options for input and output expansion modules via CAN interface.



GW700 LORA GATEWAY

- LoraWAN, MQTT communication and UDP
- Integrated diagnostic monitoring network
- Built-in Real Time Clock
- 12 and 24 Vdc power options
- Security with encryption and security key
- Configuration and monitoring via web server

NL717 NEXTO LOGGER

- Long-range LoRa communication
- 8 DI (4 fast) and 8 current AI
- SDI-12 Communication Interface
- 12 and 24 Vdc power options
- High-performance processor
- Technological platform CODESYS



MASTERTOOL IEC XE

PROGRAMMING AND
CONFIGURATION

- Six programming languages (IEC 61131-3);
- Friendly interface, intuitive and easy to use;
- Online programming and simulation.



HADRON XTORM SERIES

REMOTE TERMINAL UNIT

**AGILITY,
RUGGEDNESS
AND RELIABILITY**

- **Fast:** Superior processing and high performance protocols;
- **Rugged:** Design for operation in critical environments;
- **Reliable:** Redundancy and special input and output modules.



HADRON XTORM SERIES

- Generation, Transmission and Distribution of Power;
- Protocols for communication with Control Centers and IEDs;
- DNP3, IEC 61850 (MMS and GOOSE), IEC 60870-5-104, PTP IEEE-1588, MODBUS TCP, MODBUS RTU;
- CPU and Power Supply redundancy;
- Logical Nodes Integration (IEC 61850) with IEC 61131-3 languages.





BLUEPLANT

SCADA/HMI SOFTWARE

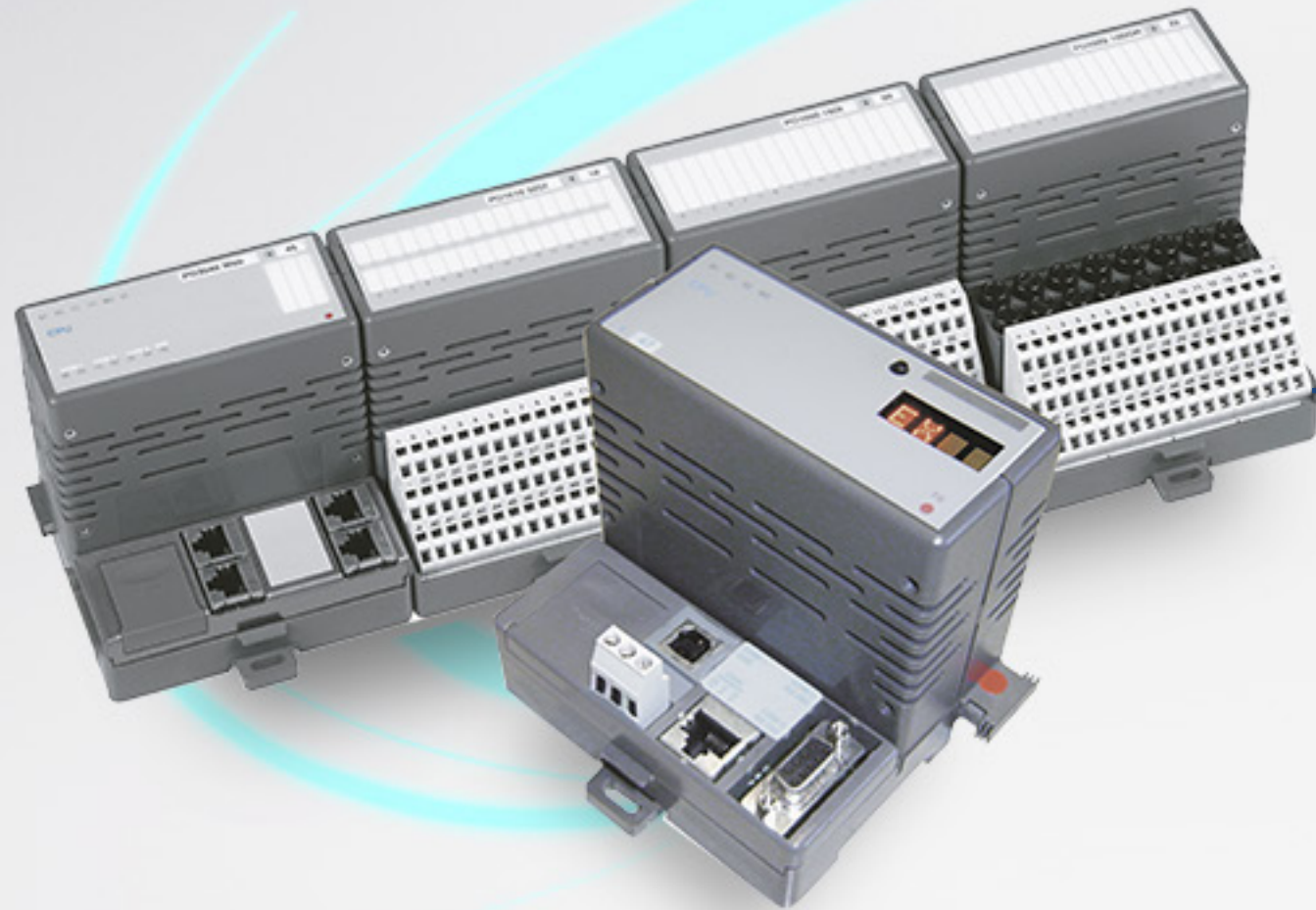
- **Impressive:** high quality graphics and intuitive configuration;
- **Superior:** safety, redundancy, and high performance;
- **Versatile:** scalar architecture adaptable to any application.





VERSATILITY IN SYSTEMS SUPERVISION

- Distributed and Remote Engineering;
- System Diagnostics;
- Simulation;
- User Management and Access Rights;
- Control and Debugging Panels;
- Support for C# and VB.NET Scripts;
- Integrated Communication Drivers;
- Report Editor;
- XAML Graphical Support and 3D Models;
- Symbol Library;
- Integration with Python and writing in SQL DB.



PONTO SERIES

- Redundant and optical PROFIBUS field network;
- Diversity of diagnostics;
- Hot swapping;
- Analog universal modules;
- HART modules;
- Asset management via HART on Profibus.



FBS SERIES

- Small Programmable Controller.

DUO SERIES

- Programmable Controllers with embedded HMI;
- 42 digital and analog I/Os;
- Free MasterTool IEC Software.



HMIs

HUMAN
MACHINE INTERFACE

INTERACTIVE AND INTUITIVE

- **Outstanding:** Vector graphics over high performance hardware;
- **Interactive:** Communication with several automation devices;
- **Intuitive:** Object library and easy to use engineering resources.



INVERTERS

FREQUENCY INVERTERS

ECONOMY AND POWER

- Functional and versatile, designed for industrial, commercial and building automation applications;
- Scalable and vectorial control of all types;
- Wide amplitude of power ranges.





STEPPER MOTOR

- More smoothness for engine operation;
- Extremely low noise;
- Resolution of up to 15 microstep tracks;
- Automatic configuration of parameters;
- High Speed Touch Compensation.



SERVO DRIVER

- Output power ranges from 100W;
- Speed, torque and position control;
- Rapid acceleration and deceleration ramp 3000 RPM;
- Absolute and multiturn encoder options;
- Communication protocols in MODBUS/RTU, CANopen and EtherCAT networks.



WEIGHT TRANSMITTER

- Zero – automatic tracking;
- Calibration via serial interface;
- Multilevel digital filter;
- Serial communication interface (RS-232 or RS-485);
- Immune to noise.

PHASE SERIES

MULTIMETERS

- Ethernet 10/100 BASE-T and Serial RS-485 communication interfaces;
- High precision;
- Expansion modules;
- Support for MODBUS-RTU, MODBUS-TCP, MQTT and Sntp protocols.

ENERGY SERIES

POWER SUPPLIES

- 24 Vdc modules from 2A to 20A;
- Protection against short-circuits.

CONNECT SERIES

SWITCHES AND INDUSTRIAL CONVERTERS

- Rugged design (IP30);
- 5 to 16-port models;
- Optical fiber network support;
- Network management tools;
- IoT Gateway with VPN for remote and secure communication.



ATTA SERIES

*PRECISION AND RELIABILITY FOR
CONTROL AND INSTRUMENTATION*

- Wide variety of instruments for monitoring variables and valve positioning;
- Pressure transmitters, temperature transmitters and valve positioners with HART® technology;
- EDDL and FDT/DTM-based tools to configure, calibrate, monitor and verify diagnostics of all the assets of your plant.



ENGINEERING SOLUTIONS

Being in the automation market for four decades, Altus offers complete solutions for the demands of Oil & Gas, Electrical Power, OEM machines and industry in general.

A photograph of two men in an industrial setting. The man on the left is wearing a white dress shirt, a striped tie, and a white hard hat. The man on the right is wearing a blue denim shirt and a yellow hard hat. They are both looking at a large set of blueprints held by the man in the yellow hard hat. The background shows industrial equipment and lighting. The overall tone is professional and technical.

KNOWLEDGE AND EXPERIENCE

Knowledge and methodology proven by the success in systems integration projects

- Experience in project management;
- Technical and managerial skilled team;
- Complete application development experience;
- Great experience in integration packages;
- Knowledge about safety standards;
- Knowledge about other brands;
- Retrofit of old systems.

OIL & GAS

**Main technology provider for
Brazilian E&P platforms**

- Development of a single automation and control system for the Hull and Topside subsystems processes;
- 27 automated platforms within Campos, Espírito Santo and Santos basins;
- Pioneering in automation systems for Pre-Salt.





PRESENCE OF ALTUS TECHNOLOGY



18% OF ALL UNITS IN
OPERATION IN BRAZIL

1/4 OF ALL FPSO's IN
OPERATION IN BRAZIL



3% OF THE GLOBAL
FPSO's MARKET

INTERNATIONAL RELATIONSHIP

Due to our global scale operation, we have a great relationship with the Chinese shipyards **COOEC** and **CIMC Ruffles**, where our engineering team conducted the commissioning of P-67, P-70 and P-71 platforms.

OIL & GAS | SUCCESS STORIES

P-58 AND P-62 FPSO's

*Automation of Brazil most
productive platforms*

- P-58: Campo das Baleia, Campos Basin/ES;
- P-62: Campo do Roncador, Campos Basin/RJ;
- Automation of 9 Thousand control points per platform;
- Subsystems:
 - Control and monitoring of production and utilities;
 - Process shutdown;
 - Fire and gas;
 - Hull.

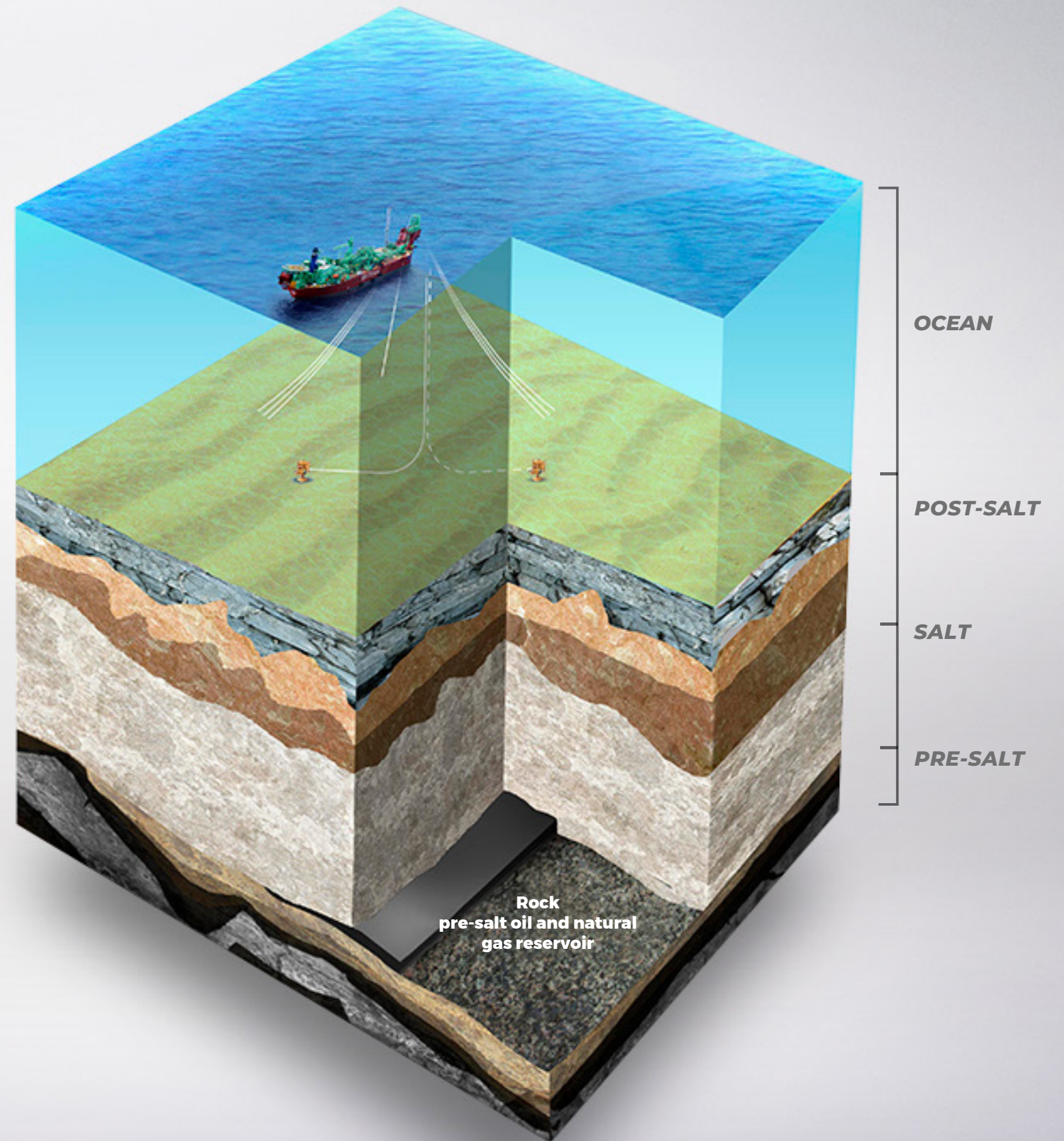


OIL & GAS | SUCCESS STORIES

PRE-SALT FPSO

50% of Pre-Salt E&P activities are controlled with Altus technology

- Automation of the first 8 platforms for Pre-Salt operations;
- Daily production capacity of 180,000 oil barrels per platform;
- More than 6 km deep extraction operations.





POWER

Vast experience in the development of solutions for areas of generation, transmission and distribution of power

- More than 50 enterprises of power generation deployed;
- Around 15% of national power is generated with Altus technology;
- Expertise in supervision, control and protection for generation units, water outlet gates, substations and auxiliary services.



POWER | SUCCESS STORIES

Paulo Afonso Complex

Responsible for 83.4% of the power generated by CHESF

- Supervision, control and protection of the generation units, water outlet gates, substations and auxiliary services of Paulo Afonso I, II and III power plants;
- 150,000 I/O points, with remote supervision and control.



POWER | SUCCESS STORIES

Ventos de Palmares Wind Farm

Automation of control, protection and data acquisition systems of the unit

- 50 MW of Power;
- Control and protection of Lagoa do Quintão Substation;
- Solution responsible for the integration of the power generated by the wind farm to the distribution system.

INDUSTRY

Complete solutions for all steps of an industrial process

- Mix of products to meet all demands of the sector;
- Vast installed base in important companies of the following segments: water and wastewater, building automation, mining, steel, chemical, fertilizers, among others.





AGROINDUSTRY | SUCCESS STORIES

Bianchini

Modernization of Rio Grande City production complex

- Modernization of Extraction, Milling, Tripper's Driving, Warehouses #2 and #3, Laminators #1 and #2, Sieve. Preparation, Flow Scale, Dryer and Pier Towers procedures;
- 8,000 I/O points and 1,000 hardware items with remote supervision and control;
- The implementation of the redundant system has improved the production in about 30%.

FOOD AND BEVERAGES
SUCCESS STORIES

Seara

***Automation of more than
90% of Gaspar's unit***

- Control and supervision of the unit's following processes: reindeer, treatment, bottling and loading of oils and margarine;
- Application with more than 4,000 I/O points and nine supervision points.





MINING | SUCCESS STORIES

Vale Corumbá

Iron ore extraction plant automation

- Supply of electric project and redundant PLC control system, network HMI, Profibus-DP remotes and distributed I/Os for Corumbá's unit iron ore extraction process operation;
- Application with ring field networks, optical communication link and more than 700 I/O points.

WATER & WASTEWATER | SUCCESS STORIES

Sabesp

*More than 100 units automated
with Altus technology*

- Altus has been a technological partner to Sabesp for more than 20 years;
- Our technological solutions are used in different applications and processes of the company, such as the treatment of water and effluents, pumping stations, reservoirs, macromasurement systems, among others;
- The products used in many solutions developed by the company feature telemetry and teleoperation for supervision and operation of all processes.





TEXTILE | SUCCESS STORIES

Vicunha

Automation of machines and processes for textile industry

- Largest textile industry in Latin America, with indigo and jeans manufacturing as main process;
- More than 200 controllers and 25,000 I/O points deployed on units I, II and III, controlling machines and processes, such as boilers, scrapers, mercerizers, among others;
- About 40% of the national indigo and jeans production is done with Altus technology.

LOADING BASE

***Complete solutions for control
and supervision of fuel loading in
different modes of transport.***

- Reliability and safety on the preparation of products for road, rail and hydro transportation, monitoring the process since the placement of the order to its delivery to the gas station.



LOADING BASE | SUCCESS STORIES

Ipiranga AutobasiWeb

Fuel loading control system

- Gasoline, ethanol and Diesel load supervision;
- Vehicle, users and scheduled loads control;
- Volume and temperature control;
- Web interface for registration and configuration of parameters, products movement and stock management.



MACHINE MANUFACTURERS



Skilled Experts and high technology for new industry challenges

- Personalized service from the beginning to the end of the project;
- Blowers, packers, baggers, labelers, injectors or extruders, whatever your business, we have the knowledge and the necessary experience to transform the results of any type of machine.



OEM MACHINES | SUCCESS STORIES

Pavan Zanetti Blowers

Development of the Blowers Continuous Extrusion control system

- Supply of hardware, development of software and follow up of all steps of planning, execution and post analysis of the project;
- The solution enabled the machine to execute the backward and forward moves of the table, as well as the control of thickness of the blown containers in a very short time: Less than 3 ms.

A server room with a rack of equipment. A glowing blue light trail forms a circular shape around the rack. The text 'R&D TECHNOLOGY' is overlaid on the right side of the image.

R&D TECHNOLOGY

Constant investment for the creation and implementation of high technology, development of world-class products and innovative services

With a multidisciplinary team formed by engineers, physicists and mathematicians, our R&D team is highly skilled for the development of hardware, software and mechanical projects, as well as SMD layout, debugging, validation and test execution.

INDUSTRY 4.0

Solutions for process control and decision making in entirely connected environments

- Technological solutions based on IoT, artificial intelligence, cloud and edge computing, augmented reality and data analysis concepts, to enable you to have shorter innovation cycles, fast productive processes, quicker decision making, highly customizable products, in addition to highly control over the quality of your business.





SUPPORT STRUCTURE

RESOURCES TO MAXIMIZE YOUR EXPERIENCE WITH ALTUS



TRAINING

Become a specialist in Altus Technology



Regular training agenda



Special and in-company courses, in accordance to the needs of customers



Training for all product lines



TECHNICAL SUPPORT

Agility and competence at your dispose



85% of cases solved
in up to 2 hours



Specialized
technical support



Online base of knowledge
with support material



PRODUCTS FACTORY

Capable of producing world-class products



50.000
components/hour



RoHS
compliant



São Leopoldo
Rio Grande do Sul

PROCESSES:

- SMT electronic assembling
- PTH electronic assembling
- Mechanical complementation and functional tests
- X-Ray inspection and visual equipment



PANEL FACTORY

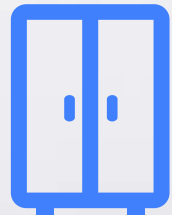
Complete infrastructure for the development and testing of large projects



3,500 m2 of modern environment



Special rooms for Factory Acceptance Tests (FAT)



Production of automation and power panels



Sapucaia do Sul
Rio Grande do Sul



ALTUS TEAM

A multidisciplinary team composed by professionals with different skills

We believe in people's potential, hence, we put efforts in the development and maturing of people's talents through the investment of continuous education and specialization. Today, we count on a multidisciplinary team formed by highly skilled professionals with vast experience, which is a true selection of stars!



SOCIAL RESPONSIBILITY

Community and company working together for the society

Our concept of social responsibility considers not only personal and professional growth of our employees, but also the promotion of education, culture and entertainment of communities which have a connection with us. Our actions seek to contribute for a more conscious society, involved with their own needs.



CUSTOMERS



VOITH

raízen

BÜNGE

TRONICS®

Beijer
ELECTRONICS

TRAMONTINA

CREVIS

SENAI

 **MESSUNG**

Braskem 

 **Bianchini**

Selovac 

 **GERDAU**


VICUNHA
TEXTIL

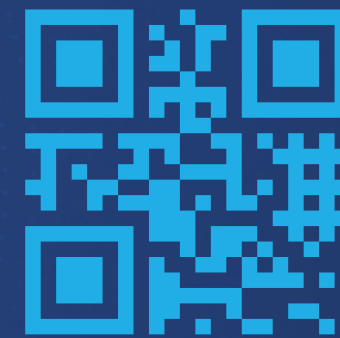

CESAN


INDUMAK


Treetech

 **pavan
zanetti**

 altus-automation  /altussa



KNOW MORE ABOUT
OUR PRODUCTS
AND SOLUTIONS
www.altusind.com

altus

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