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### 6. TRUST IN INERCO

The doors are open to us to a horizon to reinforce our vision and mission, which are key to positioning ourselves as strategic allies for the industry

# 1. Introduction





### Introduction

This introduction letter of **INERCO** 2019 Annual Report can only begin by regretting the death on July 28th of 2020 of our Co-founder and Honorary President, **Luis Salvador Martínez.** His vision and sense of anticipation made **INERCO** possible, on a date that today seems very remote, to lay the foundations of a type of organization that, from academic rigor, could provide a rigorous, effective and solvent service to attend industry needs. Today this initiative is an example and has received unanimous recognition. Rest in peace.

**INERCO** closed 2019 with a marked growth in its activity, the result of the collective effort of all its staff in the countries where we are present. The strength of **INERCO** lies there, in its people, 650 highly qualified professionals of a dozen nationalities with a marked commitment to offering maximum quality solutions at the service of industry.

We have been working for sustainable industrial development for more than 30 years, following our mission fully in force since 1984. We continue to innovate and develop to help our customers in the transition towards decarbonization. We are talking about a process that requires unprecedented technological change with very substantial investments to be implemented in a few decades.

The driving forces for the adoption of the new alternatives will be quickly identified and the necessary investment decisions to be taken. The process is irreversible, despite the uncertainties to date, and is part of the strategic plans of companies in all industrial sectors in response to a clear demand from society and investors. In this scenario, and due to its very nature, **INERCO** has much to contribute, as a strategic industry partner. Our innovative DNA continues to bear fruit. We have of flexible and modular solutions to enable maximum penetration of renewable energy, reduce the carbon footprint of energy and industry and make intelligent and safe integration of industrial sectors feasible. We have a proven track record in providing support to sustainable financing schemes that make investments in decarbonization and climate change resilient systems possible, especially in the Latin American market.

The range of current solutions that **INERCO** provides to the 21st century industry allows us to offer a solvent response to the short and medium term needs of our customers. At the same time, our professionals are working on new services and technological projects that further expand **INERCO's** product portfolio for the industry so that it is possible to face the new challenges that appear every day. Because we are experts in sustainability and in specific technologies and services to attend new industry needs, which is a the result of our in-depth knowledge of the industrial reality for different sectors and activities in 70 countries around the world.

We are convinced that this new situation will continue to have **INERCO** as a reference. That is the path. And we will continue to do so, sustainable industrial development partners.



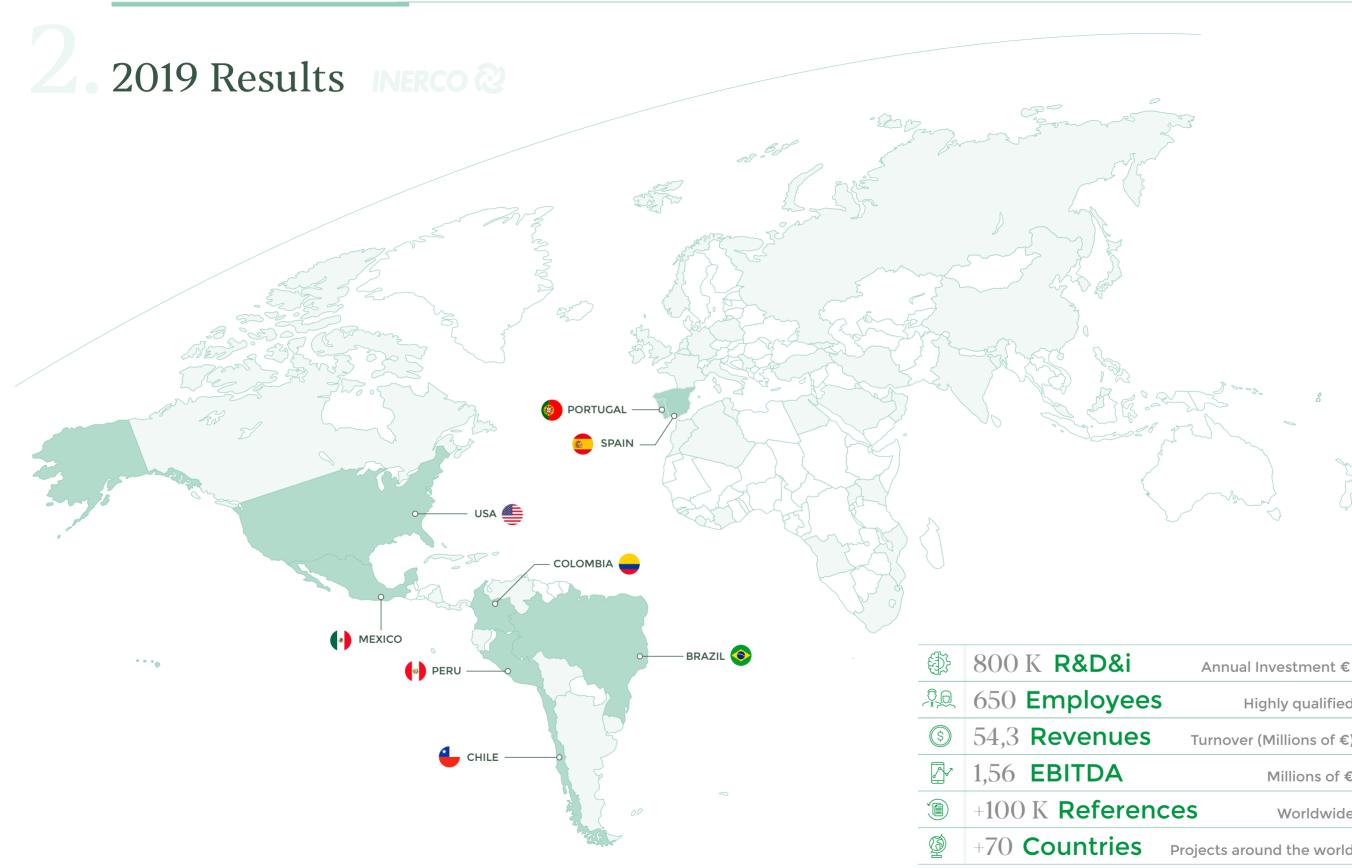
Vicente Cortés Galeano Presidente



2019 was a year that has endorsed INERCO's positioning in the world as a sustainable industrial development partner and with a strong commitment to its human team

# **2.**2019 Results





&i	Anı	nual Investment €	
/ees		Highly qualified	
Jes	Turn	Turnover (Millions of €)	
4		Millions of €	
rences		Worldwide	
es	Projects around the world		



Innovation at INERCO is part of our specific work and business strategy, which is why we dedicate a high percentage of resources to its promotion and continuous development

# 3. Innovation

### Innovation



**INERCO** is innovation, it is not just a slogan. It is a way to understand our daily work and original philosophy. Because **INERCO's** role has always been linked to sustainable industrial development, and to be very close with the industry. So we are able to know and understand day-to-day companies' work and seek improvement options, in order to comply with current legal regulations, companies daily challenges, as well as industry trends.

In fact, innovation at **INERCO** is part of our specific work and business strategy, which is why we dedicate a high percentage of resources to its promotion and continuous development. Its constant results give us a strong reason to continue along this path.

**INERCO** demonstrated a special dedication to innovation and technological development in activities already successfully implemented worldwide, such as technology for energy optimization and reduction of emissions in industrial facilities, advanced consultancy systems in industrial safety and occupational risk prevention. As well as in other areas in which we are already immersed such as energy storage, green hydrogen production and non-fossil fuels among other fronts. And our R&D&I strategy is to continue deepening as a matter of priority.

We are not only talking about self-developed innovation -the main basis of our growth over the last four decades-, but also about synergies that add us to fellow travelers with our same vision and service vocation to the industry, with sustainability as a baseline. This innovative philosophy of **INERCO** led us so far to participate in more than 40 national and international R&D&I projects, within programs of maximum relevance such as EU Horizon 2020, EU 7th Framework Program, European Coal and Steel Community (ECSC), Research Fund for Coal and Steel (RFCS), CDTI, CTA or Agencia IDEA.

What's more, we have our own corporate methodology of Innovation Promotion within **INERCO**, which ensures a harmonious, constant development of innovative activities and integrate them into the guidelines of the Group's Strategic Plan. The most special exponent of this internal system, are the **INERCO's Annual Award for Innovation**, which has enabled more than 250 proposals to be activated over the last two decades in the fields of engineering, technology and consultancy, which form part of the company's present and future.

To further strengthen this commitment to the search for innovative excellence, **INERCO** has the **INERCO Open Innovation program,** an incubator of ideas that seeks to accelerate innovative initiatives promoted by start-ups and applied to sustainable industrial development through the provision of spaces and infrastructures, business support and economic support.

The results obtained in recent years have enabled **INERCO** to support the development of these initiatives, which are now part of the portfolio of services offered to industry worldwide, with the **INERCO** seal of approval for constant innovation.



The projects executed through are business lines (Technology, Engineering and Consulting HSSEC) guarantee INERCO's trajectory throughout the world



# 4. Projects







### DEVELOPMENT OF NEW TECHNOLOGIES FOR ENERGY STORAGE FOR THE INDUSTRY

In 2019, **INERCO** consolidated its commitment to new energy technologies, to offer industry new tools in the process of decarbonization and efficiency. Thus, an agreement was signed with the Swedish company SaltX for the joint development of thermochemical energy storage technologies.

This system will be designed to store energy from renewable sources in periods of low electricity demand or from waste heat and will allow energy to be discharged in the form of high temperature heat in periods of higher energy demand. The availability of this technology will facilitate both the operational flexibility of conventional generation centers and the increased penetration of renewable energy sources.

Therefore, in the north of Chile, the conceptual engineering design for the battery energy storage system integrated in a photovoltaic park was developed for the Solarpack pilot project. Likewise, the project of hybridization of batteries and hydrogen generation in a Combined Cycle plant for Naturgy in Spain was initiated.

FOR WHO? Solarpack and Naturgy WHERE? Chile and Spain

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#### STUDY OF TECHNOLOGICAL ALTERNATIVES FOR THE REDUCTION OF GEI IN REFINERY INDUSTRY

**INERCO** carried out a technical study of technological alternatives for the reduction of Greenhouse Gas (GHG) emissions during the refining and upstream process of a multinational company in the oil&gas sector.

FOR WHO? Oil&gas multinational **WHERE?** Chile



#### ACOUSTIC SOLUTIONS FOR THE ENVIRONMENTAL **INTEGRATION OF ENERGY PLANTS**

INERCO helped ENCE at its plants in La Loma, Mérida and Enemansa, in its continuous effort to improve its environmental integration, designing, manufacturing and installing various proprietary noise control technologies.

FOR WHO? ENCE **WHERE**? Spain



### IMPLEMENTATION OF EMISSION CONTROL AND MONITORING TECHNOLOGY

**INERCO's** Continuous Emission Control and Monitoring Technology (CEMS) has been successfully installed in new industrial plants in Spain and Chile, which consolidates **INERCO's** leadership in this field of environmental technologies.

In Chile, **INERCO** implemented its CEMS technology in the facilities of a food company, as well as in the new boilers of a paper multinational in Huelva and Puertollano (Spain).

In Chile, a CEMS system has also been set up at a refinery in the Bio-Bio region, where a new Wet Gas Scrubber was installed, including both CEMS and equipment for classified areas, in order to comply with the Decontamination Plan for this region.

FOR WHO? Multinationals in food, oil&gas and paper and sectors WHERE? Spain and Chile

2019 ANNUAL REPORT

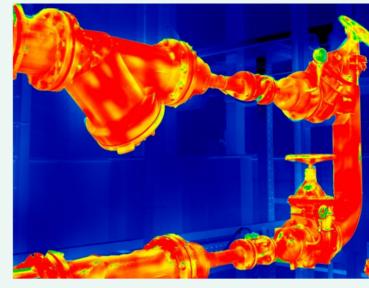
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#### **OPTIMISATION OF SULPHUR AND AMINE RECOVERY PLANTS**

In 2019, **INERCO** developed several projects together with Sulfur Recovery Engineering for multinationals in the oil&gas sector in Spain, Chile and Germany focused on characterization tests of sulphur plants, amines and acidic water washing, including simulations and optimization of these to achieve better performance of the units.

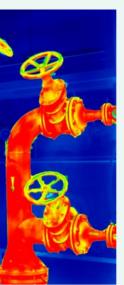
FOR WHO? Oil&gas Multinationals **WHERE?** Spain, Chile and Germany



#### **DEVELOPMENT OF A PROGRAM FOR THE** DETECTION AND QUANTIFICATION OF HYDROCARBON LEAKS (LDAR)

**INERCO**, through its subsidiary Vira Gas, has successfully developed LDAR programs, focused on the detection and quantification of hydrocarbon leaks using infrared technology, at gas distribution company facilities in Colombia and Mexico, in addition to participating in the LDAR program at Enagas s facilities in Spain.

FOR WHO? Enagas **WHERE?** Colombia, Spain and Mexico







### ENGINEERING FOR PROJECTS IN THE OIL&GAS, ENERGY AND 2020 HORIZON SECTORS

Throughout 2019, **INERCO** participated in various projects for the oil&gas sector, through specific contracts with multinationals based in Spain, to which engineering services are provided for various projects on their industrial sites.

**INERCO's** experience in this field has also been put to good use with the development of detailed engineering for a hydrocarbon storage park for a multinational petrochemical company in Mexico, the first project of this type that **INERCO** has carried out there.

Likewise, for the renewable energy sector, the detailed engineering has been contracted for a 13MW photovoltaic park.

Furthermore, **INERCO** began its participation in 2019 in the consortium of the European project TARANTULA (Horizon 2020), a Community initiative focused on the development of innovative technologies in the metallurgical field to improve the recovery efficiency of three minerals: tungsten (W), niobium (Nb) and tantalum (Ta), which are highly valued for their technological and strategic value.

**INERCO's** work on this TARANTULA project will extend to 2023 and will focus on in the development of engineering and construction of the pilot plant as well as in sustainability consulting aimed at making decisions about the optimal flow of the overall process.

FOR WHO? Multinationals in the oil&gas and energy sectors and for the European Union WHERE? Spain and Mexico



#### WASTEWATER TREATMENT TECHNOLOGY BY MECHANICAL EVAPORATION COMPRESSION

**INERCO** started up a wastewater treatment plant using evaporation by mechanical compression at the facilities of a multinational company in the chemical sector.

FOR WHO? Multinational in the chemical sector **WHERE?** Spain



### SOIL REMEDIATION IN INDUSTRIAL FACILITIES

**INERCO** implemented its soil remediation technology in various industrial facilities, such as thermal power stations and service stations. In these cases, treatments have been carried out in situ by Multi Phase Extraction (MPE), pumping, venting, sparging and water recirculation, as well as detailed soil studies for activity closures.

**FOR WHO?** *Companies in the energy, oil&gas, construction and infrastructures sectors* **WHERE?** Spain, Colombia and Peru



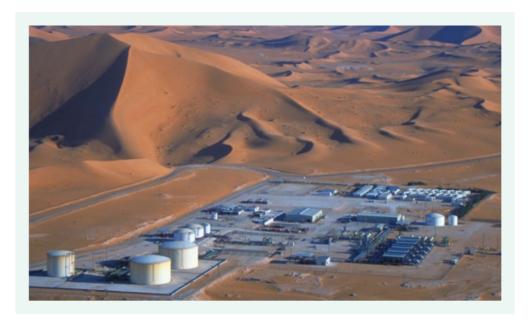
## 4.2. Consitancy / projects



#### ASSISTANCE TO MULTINATIONAL OIL&GAS **COMPANIES FOR SANDACH**

**INERCO** advises, as an expert in the environmental chapter on studies carried out by multinationals in the oil&gas sector for the development of new fuels from SANDACH waste (animal by-products not intended for human consumption), such as waste oils or animal fats, biofuels which represent a new source of energy.

FOR WHO? Oil&Gas multinationals WHERE? Spain



#### **RISK ANALYSIS AND STUDIES FOR THE** PROCESSING OF THE NEW PETROCHEMICAL PLANT PROJECT

**INERCO** successfully prepared the Risk Analysis (HAZOP/SIL/SIMOPs/ QRA/FERA/BRA), as well as the Risk Study (EDD) for the processing of the project for the new oil plant of a multinational in the oil&gas sector in Algeria.

FOR WHO? Oil&gas multinational WHERE? Algeria

### 4.2. Consistancy / PROJECTS



#### MANAGEMENT TRAINING IN EMERGENCY IN THE INDUSTRIAL SECTOR

**INERCO** developed qualified training and approved for Directors and Heads of Emergency Intervention in the metallurgical sector. These trainings have been specially focused on Incident and Emergency Management Systems for the personnel of industrial plants.

FOR WHO? Metallurgical multinationals WHERE? Spain



### ADVICE FOR COMMUNITY ENVIRONMENTAL PROJECT

**INERCO** participated together with partners from Italy, the Czech Republic, Slovenia and Cyprus, in the Community Life Braver project, which focuses on the development of flexibility and incentive measures for entities registered in the Community Eco-Management and Audit Scheme (EMAS Register).

FOR WHO? European Commission



### HEALTH AND SAFETY COORDINATION IN THE CONSTRUCTION OF NEW PHOTOVOLTAIC PLANTS

**INERCO** has been responsible for the development of Health and Safety coordination in the works carried out in four new renewable energy projects in Spain, the four new photovoltaic plants in Cadima, Parcas and Talarrubias I and II.

FOR WHO? X-Elio WHERE? Spain

## 4.2. Consitancy / projects



#### **IMPLEMENTATION OF THE SIS LIFE** CYCLE IN PETROCHEMICAL PLANT UNITS

**INERCO** worked on the implementation of the Life Cycle of Safety Instrumented Systems (SIS) at BP's refinery units in Castellon. The work carried out by the Industrial Safety Division has included both SRS and SIL verification and maintenance procedures, among other areas.



#### HAZOP AND SIL STUDIES FOR PETROCHEMICAL PLANT

**INERCO** developed HAZOP and SIL studies for Técnicas Reunidas at the new plant of a multinational petrochemical company in Abu Dhabi. This new petrochemical complex manufactures Linear Alkylbenzene (LAB) on a global scale, the most common raw material for biodegradable detergents for domestic and industrial use.

FOR WHO? Técnicas Reunidas WHERE? Ruwais (Abu Dhabi)



### STRATEGIC SECURITY CONSULTANCY FOR CRITICAL **INFRASTRUCTURE OPERATORS**

**INERCO Security** has been selected by several critical operators to advise and support them in the drafting and review of the OSPs and EPPs, documents which they must submit to the CNPIC every two years (National Centre for Critical Infrastructure). More than 30 critical operators have trusted our services for this type of service.

**WHERE?** Spain

FOR WHO? Oil&Gas multinational **WHERE?** Spain

## 4.2. Consistancy / PROJECTS



#### **ENVIRONMENTAL AUDITS FOR THE MINING** SECTOR IN CHILE

**INERCO** has been responsible in Chile for carrying out the audit of compliance with environmental obligations during the period 2018-2021 for the Chemical and Mining Society (SQM) in the Salar de Atacama Project.

FOR WHO? Corporación de Fomento de la Producción de Chile and the Sociedad Química y Minera de Chile WHERE? Antofagasta Region (Chile)



### **VULNERABILITY STUDIES OF BUILDINGS DUE TO** SERIOUS ACCIDENTS

**INERCO** executed advanced studies for buildings and installations in a petrochemical plant. Specifically, the technicians of the Industrial Safety Division have developed studies of the vulnerability of buildings to serious accidents using 3D-CFD simulations.

FOR WHO? Oil&gas multinational **WHERE?** Spain

## 4.2. Consistancy / PROJECTS



#### ADVICE TO THE UNITED NATIONS ON THE METHODOLOGY FOR CLIMATE CHANGE **INVESTMENT ANALYSIS**

**INERCO,** in collaboration with KPMG, developed the project called, Climate Public Expenditure Institutional Review (CPEIR) for Colombia, a diagnostic tool to improve knowledge on public and private investment flows for climate change mitigation and adaptation, which is the first analysis of climate financing in the country.

**FOR WHO?** United Nations **WHERE?** Colombia



### DESIGN OF A CLIMATE CHANGE RISK ASSESSMENT TOOL FOR ROAD INFRASTRUCTURE

**INERCO** presented the tool for the preliminary assessment of climate risk in the financing study of road infrastructure projects for the banking sector in Colombia. This new project includes the development of a manual for the use of this tool by financial entities.

FOR WHO? Banking and Financial Entities Association of Colombia (Asobancaria) **WHERE?** Colombia

## 4.2. Consistancy / projects



#### **CONSULTANCY IN ERGONOMICS (HUMAN** FACTOR ENGINEERING) FOR NEW REFINERY **CONTROL ROOM**

**INERCO** provided ergonomic consultancy, using Human Factor Engineering techniques for the design of a new Control Room in a petrochemical plant. INERCO's work was focused on the analysis of the future installations to provide recommendations and improvements, evaluating the human factor in a global manner and, in particular, seeking to minimize human error.

FOR WHO? Oil&gas multinational **WHERE?** *Mendoza* (Argentina)



### **RISK ANALYSIS FOR OIL WELL CLOSURE PROJECT**

**INERCO** executed the risk analysis for the hydrocarbon sector of the project to close and abandon a total of 14 wells. This project meets the regulatory requirements established by the Spanish Agency for Safety, Energy and the Environment (ASEA) and INERCO has been involved in ensuring its correct development from the point of view of safety, both physical and in terms of equipment and assets.

FOR WHO? Oil multinational WHERE? State of Veracruz (Mexico)



### 4.2. Consitancy / projects



#### SOCIAL AWARENESS WORKSHOPS FOR **BROADBAND INTERNET INSTALLATION PROJECT**

**INERCO** developed social awareness workshops for a project to install broadband internet and connectivity for social development in various regions of Peru. This initiative, promoted by the National Telecommunications Program (PRONATEL) of the Ministry of Transport and Communications (MTC), has involved the participation of more than 100,000 people in the regions of La Libertad, Arequipa, San Martin and Ancash. INERCO Peru has developed this service for YOFC SAC.

FOR WHO? Bantel and YOFC WHERE? Peru



### **TUNJA ARCHAEOLOGICAL SITE**

**INERCO** developed the archaeological excavations and highlighting the remains of an ancient Muisca settlement in the area where a laboratory building will be built. The works, which also include the human remains of fifteen tombs from the period, are the result of the Archaeological Management Plan approved by the Colombian Institute of Anthropology and History (ICAHN).

FOR WHO? Universidad Pedagógica y Tecnológica de Colombia (UPTC) **WHERE?** *Tunja* (Colombia)



INERCO's global vocation is reflected in the offices, distributed in eight countries from which we apply our advanced solutions

# 5. Inerco in the world



### 5.1. Brazil / INERCO IN THE WORLD



1



For **INERCO** in Brazil, the year 2019 was a period of settlement marked by important projects in the area of Safety and Occupational Risk Prevention Consultancy for leading industrial corporations in the country.

Thus, the service of updating the Explosive Atmospheres engineering study for an important gas plant operated by a multinational energy company in Bolivia was successfully completed.

Similarly, for a multinational chemical company, quantitative risk analyses were carried out at several industrial plants as well as for an oil platform.

In the chapter on Prevention of Occupational Risks, ergonomic analyses and verifications have been carried out for an important operator in the oil&gas sector, occupational verifications of physical risks (noise, heat and vibration) and chemicals, as well as environmental noise checks for a multinational petrochemical company.

Update of the study of Explosive Atmospheres (ATEX) for gas plant in Bolivia.
Occupational, vibration and chemical checks for automotive industrial plant.
Risk Prevention Verifications on Offshore Platforms.

In addition, **INERCO** developed the Environmental Risk Protection Program (PPRA) for the facilities of a chemical industry and occupational, vibration and chemical checks for the San Carlos (Sao Paulo) plant of an automotive multinational.



### 5.2. Chile / INERCO IN THE WORLD





2019 was a year of significant growth for **INERCO** in Chile, a strategic market, thanks to the implementation of advanced technologies developed in-house in the fields of energy storage and emissions control.

The main projects carried out include the design and conceptual engineering of the battery energy storage system integrated with a photovoltaic park for a pilot project in the north of the country, the study of technological alternatives to reduce greenhouse gas (GHG) emissions from refining and the upstream for a multinational in the oil&gas sector.

Likewise, **INERCO's** CEMS technology had new projects during the year, which demonstrate its solvency. This was evident in the equipment in operation for an agri-food industry and in the new Wet Gas Scrubber of ENAP Bio Program, with equipment for the fulfilment of the future Plan for the Decontamination of the region.

In the field of Risk Prevention Consultancy in Chile, **INERCO** managed the coordination of Health and Safety on site for four new photovoltaic projects. In the Environment area, INERCO was awarded the contract to carry out audits of compliance with SQM's environmental obligations for the 2018-2021 period with respect to its operations for the exploitation of lithium and other mineral substances in the Salar de Atacama in northern Chile. In addition, **INERCO** was awarded the preparation of the Environmental Impact Study for a major mining project and also took to carry out the development of an independent environmental audit for the construction of a hydroelectric plant in the south of the country, which will last two years.

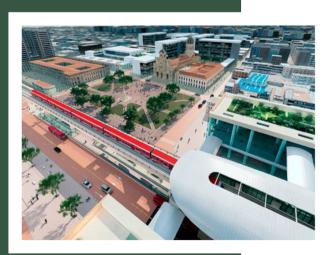


Installation of CEMS emission control technology in different industrial facilities in Chile.
Environmental audits for lithium mining sites.
Risk Prevention Consultancy for new photovoltaic projects.

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### 5.3. Colombia / INERCO IN THE WORLD





**INERCO** in Colombia consolidated its strategic importance in the Latin American market, with important projects in the areas of technology and consultancy, especially in the development of new working methodologies and documents to support the country's sustainable development.

In technological innovation, **INERCO** supported ENAGÁS in the pilot development of the LDAR program (leak detection and quantification of hydrocarbons) in TGI Colombia, a job that has also been carried out for TLA Altamira in Mexico.

In the area of Soil and Groundwater, **INERCO** carried out important projects for the recovery of soil in old industrial premises for their reconversion, as well as a Due Diligence on pumping facilities and oil pipelines. **INERCO** has actively participated as an expert in Security and Occupational Health, in the Bogotá Metro Line 1 project, where technical assistance was provided for the review of the Social and Environmental Impact Assessment of this initiative, financed by the World Bank. **INERCO** also worked closely with the first Forum of Good Occupational Safety and Health Practices for the energy sector in Colombia.

In the Archaeological Area, the company started the development of the excavations and enhancement of the discovered remains of an ancient Muisca settlement, in the space where the engineering laboratory building will be built on the campus of the Universidad Pedagógica y Tecnológica de Colombia (UPTC) in the city of Tunja. These works, which also include the human remains from fifteen tombs from the same period, are the result of the Archaeological Management Plan carried out for this project and previously approved by the Colombian Institute of Anthropology and History (ICAHN).

Recovery of soil contaminated by industrial use.
Environmental advice on the Bogotá Metro Line 1 project.

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### 5.3. Colombia / INERCO IN THE WORLD

In Environment, **INERCO,** in collaboration with the company KPMG, developed the project 'Climate Public Expenditure Institutional Review' (CPEIR) for Colombia, a tool diagnostic tool to improve knowledge on public and private investment flows for climate change mitigation and adaptation.

This study becomes the first analysis of climate finance in Colombia aimed at aligning investment, public policy and climate change adaptation and mitigation needs.

The company has also presented the Colombian Banking and Financial Institutions Association (Asobancaria) with a climate change risk estimation tool, developed to calculate, qualitatively and quantitatively, risks caused by climate events to road infrastructure projects.

3. Excavations in the old Muisca village located in the new building of the Universidad Pedagógica y Tecnológica de Colombia, in Tunja.

In addition, **INERCO** actively participated in the conference to update the proposal of the Environmental and Social Sustainability Policy of BID Invest, carried out in Bogotá. The conference was attended by banks, energy sector companies and consulting firms. The contributions obtained from socialization will be incorporated into the new Policy, which was published at the end of 2019.



## **5.4.** Spain / INERCO IN THE WORLD





2019 was a year of reinforcement for **INERCO** in its commitment to service for sustainable industrial development hand in hand of its lines of work: comprehensive solutions in the fields of environmental and energy sustainability, industrial and occupational safety, both in consultancy services and in decarbonization technologies, energy transition, emissions reduction, noise control, industrial water treatment and recovery of contaminated soil.

In 2019, progress was made towards the launch of new advanced energy services. Thus, a collaboration agreement was signed with the Swedish firm SaltX for the implementation of a joint development plan for thermochemical energy storage technologies.

A project to improve combustion in a power station NOx, and the project to retrofit the combustion system and OFA in the biomass boiler of an olive cooperative was successfully completed. **INERCO** also developed new projects with Sulfur Recovery focused on the development of characterization tests for sulphur plants - including simulation, for multinationals in the oil&gas sector associated with a three-year contract for plant optimization.

The CEMS environmental monitoring technology was installed by **INERCO** in new boilers of energy operators. As far as acoustic technology is concerned, the following were designed, manufactured and installed various solutions for the improvement of the environmental integration of several plants for a multinational energy company.

In Suelos, important remediation projects were carried out for power stations, as well as in service stations and detailed soil studies for several coal-fired power plants in the area of their closure.

Agreement with SaltX for the development of thermochemical energy storage technology.
Design, manufacture and installation of acoustic solutions.

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### 5.4. Spain / INERCO IN THE WORLD



HERRI BOMBEROS In Water Treatment, **INERCO** implemented a wastewater treatment plant using evaporation by mechanical compression for a multinational chemical company in Madrid, as well as a plant for the treatment and reuse (zero discharge) of washing water in the polyester film development processes in Malaga.

In Project Engineering, **INERCO** maintained its reference level for the oil&gas sector, with projects in the most important petrochemical sites in Spain in which advanced 3D calculation and design tools were applied, especially in Huelva, Campo de Gibraltar and Tarragona.

In Environment, **INERCO** participated as an environmental expert in the SANDACH project, an initiative which has assisted oil&gas multinationals in their initiative to use sub-products not destined for human consumption for the manufacture of fuel.

Along these lines, important vulnerability analyses were carried out on Environmental Impact Studies and adaptation to Best Available Techniques (BATs) for the industrial sector, as well as the deepening of sustainable financing for the industrial sector based on the new regulations enacted by the EU.

As a novelty, in 2019 **INERCO** carried out the first studies of a social nature in Spain for new industrial projects.

3. HUET training for security forces in CESUPAR's facilities (Rota. Cádiz).4. Participation in industrial plant emergency drills.

**INERCO** also participated as a guest expert for the Committee on Industry, Energy, Trade and Consumption of the Canary Islands Parliament, during the debate on the Canary Islands Energy Strategy 2025.

In the framework of Horizon 2020 projects, the company actively participated in two projects. Specifically, the Life Braver project, which focuses on the development of flexibility measures and promotional incentives for those entities registered in the Community Eco-Management and Audit Scheme (EMAS Register).

As for the TARANTULA project - for the development of innovative technologies in the metallurgical field to improve the efficiency of mineral recovery - **INERCO** developed the engineering, the construction of the pilot plant and the sustainability consultancy.

In Industrial Safety, **INERCO** reinforced its presence in the Spanish oil&gas sector with work to implement the Life Cycle of the SIS (BSS/SIL Verification/Procedures maintenance, etc.) in the units of a refinery. For oil&gas operators in Spain carried out vulnerability studies of buildings due to serious accidents by means of 3D-CFD simulations, and in Spain and Portugal ten and eight training courses were given respectively on the Risk Analysis and HAZOP Analysis Methodologies.

## 5.4. Spain / INERCO IN THE WORLD

In Security, **INERCO** was selected by several critical operators for advice and support in their PSO and PPE. He also advised on an audit and risk analysis of the plant of a steel multinational.

For its part, Reach Integra provided chemical safety services for numerous clients in various industrial sectors.

In emergency training, **INERCO** provided fire-fighting training for the personnel of a multinational chemical company as well as for their managers, training in Management Systems Incidents and Emergency Command and Control courses for personnel of important steel companies.

It also provided training in radioactive matters for the staff of the Guipúzcoa Provincial Council's SPEIS Fire Brigade and for firefighters, in the area of dangerous goods and rescue at height.

CESUPAR's facilities in Rota (Cadiz) hosted the training for the US Navy Destroyer Rescue Swimmers based there and HUET training for flight personnel of the Guardia Civil and National Police Corps.

5. Occupational Risk Prevention for the oil&gas sector in Spain.

In the field of Occupational Risk Prevention, **INERCO** has updated the ATEX documents for installations in the multi-national energy and oil&gas sectors.

Safety signs were also designed and implemented in a refinery, a task analysis was carried out, the review of risk assessment and operational procedures in different units of a steel plant.



5

## 5.5. Mexico / INERCO IN THE WORLD



2

In 2019, the important Mexican industrial sector had the services of INERCO in different major projects.

In this sense, **INERCO** was present -once again this year- at the Mexican Petroleum Congress (CMP), the largest event of the oil&gas sector in the country, where the services of energy and environmental technologies, engineering and HSSEC consultancy were presented at the Mexican Petroleum Congress.

As indicated in the section on Colombia, in terms of technological innovation, **INERCO** has supported ENAGÁS in the pilot development of the LDAR program (detection and quantification of hydrocarbon leaks) TLA Altamira, as well as in TGI (Colombia).

In 2019, **INERCO** achieved its inclusion in the ACREF-S007-2019 Reference Agreement as a specialized provider to provide process risk analysis services and emergency response plans for hydrocarbon exploration and extraction activities in PEMEX.

In terms of Industrial Safety, ARP and PRE were developed for its facilities in the Panuco contract area, operated by oil multinationals.

In 2019, a phase of the Risk Inspection program for facilities insured by this operator was developed for a major insurance company. Risk identification sessions were also held for the hydrofluoric acid plant.

Participation in the Mexican Petroleum Congress (CMP).
Risk Inspection Program to facilities.
Training for the fire brigade.

In emergency training, **INERCO** provided a training course for the fire brigade of a multinational food company.

In Occupational Risk Prevention, **INERCO** implemented an occupational health and safety system based on the international ISO 45001 standard for four pilot plants in the metallurgical sector.

Along these lines, **INERCO** consolidated its position as an expert in the field of Behavioral Based Safety, thanks to its outstanding participation in the International Symposium organized by Coca-Cola de Mexico in front of more than 120 executives from the main bottling companies in Mexico.

In Environment, the Environmental Manifesto was developed to the Los Cuervos solar project and has made modifications to the Environmental Impact Statement of the Valle de Mexico Storage Terminal project.



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## 5.6. Peru / INERCO IN THE WORLD





For **INERCO** in Peru, 2019 was a year marked by a significant strengthening of environmental and social management consultancy services. For Bantel, the awareness service was developed for the Installation of Broadband for Integral Connectivity and Social Development for the regions of Huánuco and Pasco, in charge

of the National Telecommunications Program (PRONATEL) of the Ministry of Transport and Communications (MTC).

A similar service was provided for YOFC in four other regions of Peru, for an implementation period of about twelve months, during which a team of over seventy people was mobilized.

In Environment, the consultancy service related to the supervision of environmental remediation for the Jorge Chávez International Airport Expansion Project was carried out for Lima Airport Partners.

For Metro de Lima, **INERCO** developed the service of updating the semi-detailed Social and Environmental Impact Study - with a noise and vibration study included - of 'Line 2 and Branch Line Av. Faucett Av. Gambetta of the Basic Network of Metro Lima and Callao', one of the most important infrastructure works being carried out in Peru.

For its part, **INERCO** was awarded the service of updating and integrating the Environmental Impact Study of the IIRSA Centro Road Corridor, in its section 2.

In 2019, workshops were also held in the cities of Piura and Trujillo -together with the municipalities' mayors, companies public service providers, civil society, academia and public bodies - to discuss future urban development trends in these cities, and to identify measures for adaptation to climate change.

Likewise, **INERCO** has contributed its experience for the Bankability Audit service in compliance with the Equator Principles and IFC Performance Standards, during the Construction of the Talara Refinery Modernization Project.

In the area of technology, **INERCO** carried out outstanding projects in the area of soil recovery at a service station in Lima, as well as carrying out studies at around twenty service stations in Lima and the province.



1. Bankability audit for the modernization project of the Talara refinery.

2. Recovery of contaminated soils due to the effect of hydrocarbons in service stations in Lima and the province.

3. Workshops in the cities of Piura and Trujilo for urban analysis and development of the necessary measures to adapt to climate change.

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## 5.7. Portugal / INERCO IN THE WORLD





In Portugal, **INERCO** has established itself in 2019 as a benchmark consultancy in Industrial Safety for the country's main industries, in key sectors such as oil&gas, chemicals, petrochemicals and pharmaceuticals, among others.

Audits were carried out for multinationals in the oil&gas sector in security, risk analysis, external Emergency Plan, as well as the updating of Seveso documentation in different facilities in the country. In addition, the documentation on explosive atmospheres (ATEX) was updated for a refinery, propane warehouse and a storage park.

The multinational pharmaceutical company Hovione trusted **INERCO's** experience in security for another year, contracting the services of new technical assistance in various areas, with studies Explosive Atmospheres (ATEX) and Emergency Plans for your facilities.

For the new Lisbon airport - under construction - **INERCO** developed a Risk Study associated with hazardous substances and fuels, while for a multinational telecommunications company, the organization of external services and technical assistance in various areas (SCI, Risk Studies) has been carried out. On the other hand, for the cement sector, a service was carried out to verify work equipment in installations in Portugal, as well as emergency training for its personnel.



1. Safety studies for the refinery.

Technical assistance in safety matters for the multinational pharmaceutical company Hovione.
Risk study for the new Lisbon airport project.

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## 5.8. USA - Canada / INERCO IN THE WORLD





In 2019 the North American market had interesting projects in strategic sectors of **INERCO**, with special relevance in the energy field. Among the projects implemented the remote-control services of the **ABACO** technology installed in the ATCO Power Battle River Thermal Power Station stand out (Alberta, Canada) and at the Landulpho Alves refinery operating Petrobras in Salvador de Bahía (Brazil).

The good results of the technology developed by **INERCO** and implemented in these two energy centers have meant a new international support for the **ABACO** brand which, at the beginning of 2019, closed the important project of installing its **ABACO** LOI system - for the monitoring of unburned vehicles - in the Barangay Akle cement factory in the Philippines for Eagle Cement Corporation.

In this respect, **INERCO's** office in the United States is playing a key role in the commercial development carried out in important energy markets, such as India and South Africa.

As regards Security, **INERCO** advised an energy multinational on the implementation of a major cybersecurity infrastructure in its networks in the United States. In addition, a delegation from **INERCO** participated in 2019 in the World Bank Group's Business Opportunities Fair: Climate-Smart Energy Solutions, the World Bank's event for its projects on Climate Change around the world in which **INERCO** has participated as a global environmental expert



1. Participation in a trade fair with Sulfur Recovery.

2. Participation in the World Bank Group's Business Opportunities Fair: Climate-Smart Energy Solutions.3. Security advice on the implementation of cyber security in networks in the United States.

## 5.9. Other countries / INERCO IN THE WORLD





**INERCO's** continuous work and vocation for service has made it possible to have projects in more than 70 countries, a background that demonstrates the solvency of our brand, which is committed to sustainable development throughout the world.

### **AFRICA**

**INERCO** maintained its activity in the field of Industrial Safety in Africa during 2019, with various Asset Integrity, Reliability and Maintenance studies as FMECA studies for an energy project in Morocco.

For the project to extend the crude oil stabilization plant in Algeria, INERCO has drawn up the risk analyses (HAZOP/SIL/CONSEQUENCE ANALYSIS/FIRE AND EXPLOSION RISK ASSESSMENT/QUANTITATIVE RISK ANALYSIS/ÉTUDE DE DANGERS).

### **AMERICA**

In Argentina, the new and relevant project of the Control Room of a new refinery in Mendoza was carried out, where INERCO was in charge of the consultancy in Ergonomics (Human Factor Engineering).

### 1. Security studies for the energy project in Morocco. 2. Ergonomics consultancy (Human Factor Engineering) at the refinery in Mendoza (Argentina).

### MIDDLE EAST AND REST OF ASIA

In Asia, Acoustics technology, based on atmospheric vapor vent silencers, was relevant to the 'DUQM Refinery' project in Oman, in order to minimize the noise generated by the safety valves installed in that petrochemical complex.

For its part, in Abu Dhabi, **INERCO** carried out the HAZOP/SIL studies for the new LAB plant of an energy multinational.

### EUROPE

In Serbia, **INERCO** was classified as a 'key expert', thanks to the Acoustics services provided for the development of the Strategic Map of the City of Ni', a pioneering experience in the implementation of the CNOSSOS-EU:2015 method, which has also included the latest modifications proposed by the ISO/DTR 17534-4 standard and the National Institute of Public Health and Environment of the Netherlands.

For its part, the Occupational Health and Safety Division has carried out hygiene assessments for the work carried out by a major engineering company in a power plant in Finland.



INERCO's experience is a guarantee for companies from all industrial sectors, which have once again benefited from our advanced services in 2019

# 6. Trust in Inerco



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# Trust in Inerco

OIL&GAS





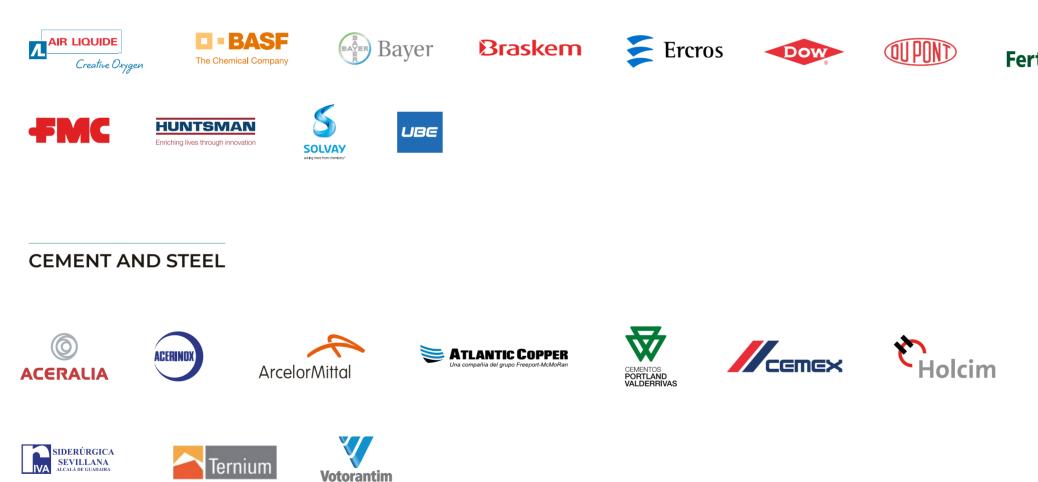


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### CHEMICAL AND PETROCHEMICAL







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### GLENCORE

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### FOOD AND AGRICULTURE



## **OSBORNE**



MinMinas Messeria de Minas y Energía

\*SOME REFERENCES



### PORTS



EMPRESA NACIONAL DE DURDACE.



CODESA

Puertos del Estado



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