# ANNUAL REPORT

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# Presentation

### Sustainability and growth

2024 has been a very special year for all of us. It is the year in which we took up the baton from our founders, with a clear objective: to ensure that our vision remains intact, while making a significant leap in scale, building a more international INERCO that delivers value to our customers through Comprehensive Sustainability Solutions like no one else can. At the same time, we are shaping an INERCO where our team has increasing access to ownership.

This important change, and the path we have embarked upon, has been received very positively by our clients and stakeholders (including suppliers, financial institutions and public administrations), with significant signs of trust and support already emerging. Most importantly, the INERCO team is enthusiastic about a future full of opportunities.

All of this has enabled us to continue growing and strengthening our position in 2024, in a scenariomarked by technological and regulatory transformation, as well as significant social and economic changes:

• Our Consulting services have made industrial projects viable across all sectors, optimising environmental protection, facility and process safety, and minimising occupational risks for workers.

Our environmental technology and energy transition lines have expanded their reach in all the countries where we operate, providing the advanced knowledge and technical expertise that allow us to ensure the complete sustainability of industrial projects.

The firm and determined commitment of each and every one of our clients to real sustainability is our driving force. It enriches us, fuels our growth in knowledge, and enables us to fulfil our objective of contributing to the viability and environmental improvement of all their activities.

Sustainability is the foundation of our business lines, but it is also a key factor in attracting talent. This has enabled us to address one of key challenges in our development during 2024: continuing to recruit committed and enthusiastic people whose purpose is to grow by contributing to sustainability and, ultimately, to building a better world. These are the kind of colleagues we need, not only to strengthen our teams but also to inject fresh perspectives and new technical capabilities into our approach to finding solutions.

None of this would have been possible without the enormous dedication and effort of our **team**. They are the key, and they are the ones who make all our activities possible. They are the guarantors of our technical and social solvency, they are our talent, and they are responsible for each and every one of our achievements. They are what sets us apart, and makes us special, and we owe them everything. For them, we will continue to strive for a larger, more technological and more human **INERCO**, with our commitment intact: to develop solutions that transform the industry through real sustainability. Thank you!

And a very special thank you to Luis Salvador and Vicente Cortés, our founders, and to our CEO, José González, my friend Pepe. They have taught us the importance of values and how the development of a sustainable industry requires technical rigour and a forward-looking vision.

Thank you all!



Pedro Marin Executive Chairman

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# Innovation

**INERCO**'s innovation in 2024 has maintained the fundamental commitment of a company whose track record of **research and technological foresight** is embedded in its very origins and DNA. Proof of this is the momentum behind projects that began in 2023 and came to fruition in 2024 as a clear commitment to analysing key aspects of industrial development, such as participation in the **24/7 ZEN** Project, part of the *Clean Hydrogen* call for proposals under the Horizon Europe programme. This programme is developing a reversible system based on **solid oxide hydrogen electrolysis** (rSOEC) technology, with a capacity of 100 kW, in which **INERCO** is playing a leading role in the development of the Balance of Plant (BoP) engineering, that is, in the design of all the auxiliary equipment essential for the operation of the system, as well as in the **construction** of the modular plant and the performance of preliminary tests.

Furthermore, progress in various fields related to **decarbonisation and energy transition technologies** has been substantiated in the research work initiated or completed by our development teams in projects, including the following:

- The ATMOSPHERE project, for research into new technologies for the efficient and safe production of renewable hydrogen. In this project, led by IBERDROLA and involving leading Spanish companies and technology centres, INERCO plays a leading role in the use of solid oxide electrolysis (SOEC) technology, the safety of new processes and the improved design of future plants with high renewable hydrogen production capacities.
- Significant results have been achieved in the GreenComb Project, in collaboration with the Andalusian Association for Research and Industrial Cooperation (AICIA), for the development of flexible combustion systems for different renewable energy vectors, such as hydrogen, ammonia and biomethane, among others.

In the field of R&D projects related to energy transition and, specifically, in the
field of biogas production and effluent optimisation, the advances achieved
in the OSMAR Project. This technological research project aims to develop a
solution that allows the revalorisation of effluents, loaded with organic matter,
into ecological fertilisers for use in horticultural crops, reducing the water
footprint and environmental impact.

In the field of **digital innovations**, **INERCO** continues to work on the development of advanced products and services that complement or provide new solutions in the field of **sustainability**, focusing on the use of: sensorisation and data exchange and processing (IoT), Artificial Intelligence, satellite remote sensing, drones and artificial vision.



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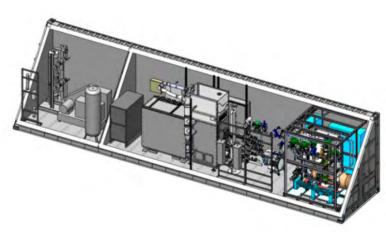
In this regard, the application of various digital enablers is allowing **INERCO**'s different business lines to grow and bring advanced solutions to market in a variety of fields.

The year 2024 has seen the development of several such applications, such as the one addressed by the **SWN** (SafeWorkNet) Project. Thanks to the support of a European Commission cascade funding programme and in collaboration with Secmotic, a company specialising in AI, systems have been developed for the early detection of unsafe situations in industry through the use of artificial vision. This innovative solution will enable a new level of excellence in risk prevention management in industry to be achieved, thanks to its precision in preventing

risks related to both worker safety and ergonomics.

Last but not least, it is worth highlighting how the open **innovation model continues** to be fundamental for **INERCO** in successfully tackling the countless challenges we face. This collaborative model encompasses everything from large companies (industrial and energy) to start-ups, including technology companies, technology centres and universities. This model allows us to reduce timeframes, streamlining the research and development process through the diversity of knowledge, experience and resources.











# Sustainability and ESG Criteria

The year 2024 has meant a return to **technological and economic realism** for the industrial sector and for projects aimed at decarbonisation (better defined as "defossilisation") and environmental improvement based on new processes and production chains. This has been experienced in a similar way in most of the territories where we operate. Gone are the days of numerous projects whose foundations strayed from the three key pillars needed to achieve viability and move forward with their development and operation: **technological**, **environmental and economic sustainability**.

In this way, last year **INERCO** clearly demonstrated the nature of our company and our economic activity as a "facilitator", according to the definition set out in Article 16 of the Taxonomy Regulation ("enabling activities"), focused exclusively on sustainability and the technologies that make it possible, by enabling, through our activity, our clients' industrial and economic projects and activities to align with the achievement of substantial contributions to one or more of the environmental

objectives (established within the framework of sustainable investments and the European *Green Deal*), to the once significant harm (DNSH, *Do No Significant Harm*) to the other objectives for sustainable financing is avoided.

The application of **INERCO**'s knowledge, experience and technologies during 2024 has thus made it possible to sustain the three fundamental pillars that make a project environmentally and technically **viable** in all the territories where we work for our clients, given that our philosophy is not focused solely on the development of the projects and activities in which we participate, but also on their improvement and optimisation.

As a result, 2024 gave a particular boost to our lines of business focused on the authorisation and implementation of projects aimed at **climate change mitigation** and adaptation, which have required further development and refinement in terms of their characteristics and technical alternatives in order to clarify and establish





business plans and the feasibility of their implementation and operating options, in a scenario of uncertainty (regulatory and economic) and slowing investment. Some of these projects are presented in this report, focusing on both to minimising polluting gas emissions, CO<sub>2</sub> capture, the generation of renewable environmental vectors (such as hydrogen, biogas and methane, methanol or ammonia, solar, wind or biomassbased electricity generation) and energy storage itself through battery systems using various technologies or thermal storage.

However, developing these capabilities to ensure the sustainability of our business and that of our customers in 2024 would never have been complete without our special focus on information and social management of communities and groups. This is because all advances in the environmental and technological development of an activity or project are useless if the environment in which they take place does not know and understand their capabilities and characteristics, and if the concerns of the community (whether unfounded or not) are not taken into consideration for feedback into the planned activities, or explained in a simple and understandable way for the full understanding of the stakeholders. This allows our teams to close the circle of comprehensive sustainability, where environmental, technological and social aspects feed back into and complement each other, enabling improved and operational solutions to be achieved.

This social vision has also been reflected internally within our organisation, as a key point, highlighting the integration of ESG environmental and social criteria at all levels of our organisation and within INERCO's management structure itself.



Our integrated and cross-cutting approach to INERCO's lines of action has enabled us to maintain our strategy within the framework of the Sustainable Development Goals (SDGs) that characterise our activity, with the following SDGs related to INERCO's activity and sustainability plan standing out:





### SDG 3

Ensuring healthy lives and promoting well-being, directly related to INERCO's mission, which focuses on improving the environment and safety, health and prevention conditions in economic activities and their surroundings.



### SDG8

Relating to the requirements for INERCO's suppliers and providers to comply with Social Responsibility and Ethics criteria (including the contractual requirement to support the elimination of child/forced labour), as well as the prevention and compliance with their own and third-party safety standards.



### SDG 9

Refers to the promotion of environmentally friendly technologies, which is closely linked to INERCO's Mission and, more specifically, to its contribution to sustainable industrial development.



### **SDG 10**

Sustainable industrial development, a fundamental pillar of INERCO's activity, is one of the main instruments for ensuring equal opportunities among different sectors of the population in all countries, enabling an increase in their income and the adoption of increasingly effective and comprehensive fiscal, wage and social protection policies.



### **SDG 11**

On the sustainable use of resources and environmentally friendly technologies, as established in INERCO's Code of Ethics for minimising the environmental impact of the organisation's activities, as well as promoting sustainable mobility among our employees.



### **SDG 12**

The development, authorisation and implementation of appropriate technologies by the different INERCO Divisions enable progress towards the efficient management and use of natural resources, waste generated and energy consumption, strengthening scientific and technological capacity towards more sustainable production.



### **SDG 13**

For climate change mitigation, based on the high number of INERCO services and products aimed at decarbonising the economy, and despite the low greenhouse gas (GHG) emissions intensity of our activity.



### **SDG 16**

In relation to the fight against corruption and bribery, and the independence of political and economic powers, as a basic pillar of **INERCO**'s Code of Ethics.

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# Consulting

### ENVIRONMENTAL ADVICE AND AUTHORISATION FOR NEW PERUVIAN ELECTRICAL INFRASTRUCTURES TO IMPROVE THE NATIONAL INTERCONNECTED ELECTRICAL **SYSTEM (SEIN)**

The year 2024 has seen the consolidation of INERCO Peru's environmental team in its activity as a company specialising in the authorisation of large infrastructure projects, with particular emphasis on the advice, preparation and environmental processing of two major electricity interconnection projects for the company CONSORCIO TRANSMANTARO (ISA CTM), the concessionaire of the Mantaro-Socabaya transmission line, responsible for connecting the Central-North Interconnected System with the Southern Interconnected System, forming the National Interconnected Electrical System (SEIN).

On the one hand, ISA CTM awarded INERCO Peru a contract to obtain environmental certification for the Detailed Environmental Impact Study of the "220 kV Belaunde Terry Link" project. - Tarapoto Norte (2 circuits), extensions and associated substations," which will improve the supply of electricity and expand the transformation capacity of Peru's National Interconnected Electrical System (SEIN).

In addition, ISA - CTM commissioned INERCO to manage and obtain authorisation for the project "500 kV Huánuco-Tocache-Celendín-Trujillo Link, expansions and associated substations - TOCE", a project that involves the construction of new transmission lines, expansion of existing substations

and construction of new substations. This project is located in the departments of Huánuco, San Martín, Cajamarca and La Libertad and will contribute to the International Interconnected System (SEIN) by significantly improving and optimising operations in the area.

INERCO has not only developed environmental analyses for ISA CTM's new electrical infrastructure projects, but has also been responsible for conducting pre-feasibility studies, providing advice, information and social management for communities and stakeholders in the areas of operation, as well as acoustic analyses and modelling of system elements with a potential acoustic impact on the environment. All of this has enabled us to tackle the environmental permitting process for both projects under the best possible conditions.



Peru

**CLIENT** 

CONSORCIO TRANSMANTARO (ISA CTM)



Source: ISA ENERGÍA



Source: ISA REP

# Consulting

### INERCO IS DEVELOPING THE SAFETY STUDIES FOR THE HANSEATIC ENERGY HUB LNG AND RENEWABLE GAS IMPORT TERMINAL PROJECT IN GERMANY

In 2024, INERCO's Industrial Safety Division carried out safety studies for the new liquefied natural gas (LNG) and green gas terminal project by HANSEATIC ENERGY HUB GmbH, located in Stade (Germany).

This new terminal will enable the supply of LNG and renewable gases (such as green ammonia) to Germany as it prepares for the expansion of the hydrogen market, while also taking advantage of industrial waste heat from the chemical company DOW CHEMICALS, which will allow the gases stored there to be regasified without additional CO<sub>2</sub> emissions. ENAGAS is participating as an industrial partner and shareholder in the project.

HANSFATIC ENERGY HUB has awarded the design and development of the new (emissionfree) regasification terminal to a consortium led by TÉCNICAS REUNIDAS, FCC and Entrade GMBH, for **INERCO** has prepared the safety documentation

for the project. This safety documentation includes the regulatory studies applicable to the type and activity of the facility, including:

- HAZOP studies.
- Safety Integrity Level (SIL) determination studies.
- Fire and explosion risk assessment studies (FERA).
- Quantitative risk assessment (QRA).

The development of these specialised analyses (carried out for LNG storage tanks, regasification and auxiliary systems, and ship and tanker loading and unloading systems associated with the project) has been based on INERCO's extensive experience in analysing and reviewing safety aspects associated with regasification facilities, both during their design and operation.





Source: HANSEATIC ENERGY HUB

**LOCATION** 

Germany

CLIENT

TÉCNICAS REUNIDAS

# Consulting

### APPLICATION OF THE HUMAN FACTORS ENGINEERING (HFE) METHODOLOGY IN THE ATLANTIC COPPER CIRCULAR PROJECT IN SPAIN

The CirCular project is an important initiative in the field of the Circular Economy planned by the nonferrous metallurgy company ATLANTIC COPPER (part of the international Freeport-McMoran Group), which is integrated into the metal treatment chain already carried out by the Company at its current facilities in Huelva (Spain). The project involves the installation of a highly efficient management and smelting plant with the capacity to process around 60,000 tonnes per year of non-ferrous metal fractions from waste electrical and electronic equipment (WEEE), which have already been pretreated by authorised operators.

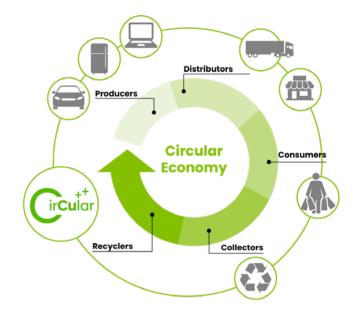
This project, declared of strategic interest by the European Commission and the Regional Government of Andalusia, will enable the recovery of materials such as copper, gold, silver, platinum and palladium, and will be operational in the first quarter of 2026.

In 2024, INERCO applied the Human Factors **Engineering (HFE)** methodology to project engineering (developed by the multinational Hacth Küttner) in order to identify modifications to be made to comply with international legislative standards and design codes, optimise safety and efficiency, and

minimise human error. Thus, by applying principles and data on human capabilities and limitations to the design of systems, products and environments, or by using Human Hazop, HFE focuses on the prevention of occupational and industrial risks through the identification and mitigation of risks associated with the human factor.

The methodology applied to the new unit prior to its construction will enable the prevention of occupational, industrial and catastrophic accidents from the design stage ("Safety in Design review"), avoiding the costs of future corrective actions and increasing the operability of the facilities themselves.

**LOCATION** Spain **CLIENT** ATLANTIC COPPER





Source: ATLANTIC COOPER

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# Environmental Technologies and Engineering

### DEVELOPMENT OF ENGINEERING SERVICES FOR PROJECTS OF THE MAIN **ENERGY AND REFINING OPERATORS IN SPAIN**

In 2024, INERCO has developed a high degree of collaboration in projects for the main operators in the energy and refining sector in Spain, particularly those carried out for companies such as MOEVE, REPSOL, EXOLUM and ASESA at their various facilities in Spain.

This work has included all types of engineering (conceptual, basic and detailed), as well as the supervision of assembly and commissioning on several occasions.

For MOEVE, INERCO has carried out, among other things, basic and detailed engineering for energy improvements to the Crudo I unit, the reorganisation of the San Roque Energy Park jetty, and basic engineering and FEED for various projects to reduce energy consumption and minimise CO<sub>2</sub> emissions at the La Rábida Energy Park.

Furthermore. INERCO has carried out the basic engineering and FEL for the modifications associated with the fuel gas supply project from a unit for hydrogen production at the Puertollano Refinery for REPSOL.

In addition, can highlight the engineering work carried out for the major pipe reorganisation at EXOLUM's fuel storage facility in Huelva, and the detailed engineering for a new EXOLUM storage facility in Lanzarote.

Besides. INERCO renewed its work in 2024 as **external engineer** for the refinery operated by ASFALTOS ESPAÑOLES S.A. (ASESA) in the Tarragona Industrial Park for the production of distillates and asphalt bitumens, both in the form of project engineering and assistance provided by plant technicians.

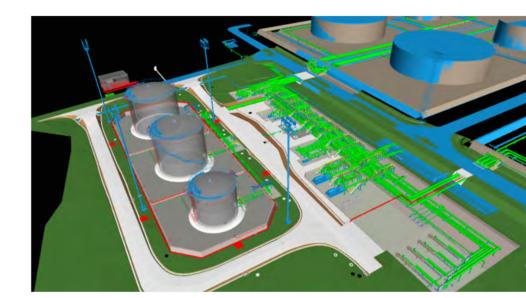
This assistance is based on INERCO's extensive engineering experience in the energy and oil & gas sectors, spanning more than 40 years and more than 70 countries worldwide, which is key in the current scenario of adapting these activities to new production, regulatory and environmental sustainability requirements.

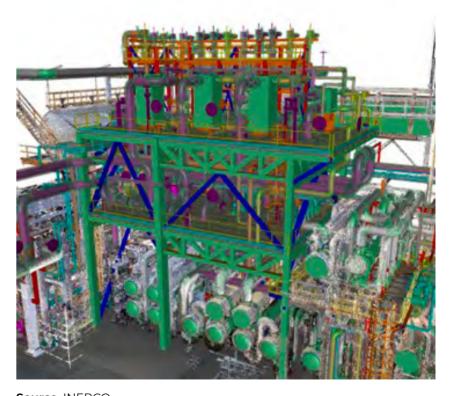


Spain

**CLIENTS** 

MOEVE, REPSOL, EXOLUM, ASESA





Source: INERCO

# Environmental Technologies and Engineering

### INERCO AND ALFA LAVAL SIGN AN ALLIANCE FOR THE JOINT DEVELOPMENT OF ZERO DISCHARGE AND EFFLUENT REUSE SOLUTIONS

ALFA LAVAL IBERIA and INERCO have established a partnership in 2024 for the development of ZLD wastewater treatment projects, combining the knowledge, experience and synergies between the capabilities of both companies.

**Zero liquid discharge** (ZLD) wastewater treatment seeks to treat all industrial liquid effluents generated in a facility or process, maximising the reuse of treated water and minimising waste production. In many cases, this is combined with the possibility of using excess heat from the facilities to evaporate the effluents.

Most industries require water for their production processes and, as a result, significant amounts of wastewater effluent are generated that must be treated. Zero discharge systems using evaporation allow these wastewater effluents to be treated until the water is of a quality that allows it to be reused, thus reducing dependence on and consumption of water as a raw material, optimising waste management and its impact on the environment, and minimising operating costs for the industry where it is generated.

ALFA LAVAL is a Swedish company, a leader in heat transfer, separation and fluid handling technologies, focused on the development of the Energy, Marine, Food and Water sectors, with a strong global presence. INERCO is a company specialising in the design of comprehensive solutions for industry, including the development, supply, operation and maintenance of tailor-made solutions for water treatment and purification, with extensive experience in the treatment of feed/ service water, wastewater, oily emulsions, process water, sludge, leachates, water for reuse, recycling or purification.

This alliance will enable INERCO and ALFA LAVAL to improve the services they offer to all their customers who require optimised and effective water treatment.

**LOCATION** Spain

**CLIENT** 



Source: INERCO

# Environmental Technologies and Engineering

### NOISE MITIGATION AT ENAP'S ACONCAGUA REFINERY IN CHILE

INERCO's international experience in reducing and mitigating noise emissions associated with major industrial activities reached a peak in 2024 in terms of the diversity of countries and the scale and interest of the projects. This is linked to the growing importance that noise has acquired in our clients' priorities to minimise the potential effects of their activities on their environment, making them more sustainable as well as operational.

One of the major projects initiated by INERCO in 2024 was the assistance provided by our Acoustics Division to the Aconcagua Refinery, located in Concón (Chile) and owned by EMPRESA NACIONAL DEL PETRÓLEO (ENAP). This work focused on mitigating noise emissions generated by air coolers located in several plants within the complex. For this purpose, INERCO successfully designed and implemented, in EPC format, specific solutions for each of the selected pieces of equipment, consisting of the application of silencers, as well as improved insulation and acoustic compartmentalisation using sound-absorbing elements that are compatible with ventilation requirements, operation and standard maintenance practices.

The success of the solutions proposed by **INERCO** is not based solely on the ability to **implement** the measures previously designed, but on the combination of tailor-made solutions, designed by a highly qualified team, together with the installation and operational guarantees provided and achieved for the various improvement measures implemented.

The supply and installation of the various acoustic corrective measures carried out by INERCO for ENAP's Aconcagua Refinery has been carried out on an EPC basis.

**LOCATION** Chile **CLIENT ENAP** 



Source: ENAP. INERCO



Source: ENAP. INERCO

# Environmental Technologies and Engineering

### IMPLEMENTATION OF CONTINUOUS EMISSION MEASUREMENT SYSTEMS AT THE ITABO POWER PLANT IN THE DOMINICAN REPUBLIC

In 2024. AES DOMINICANA awarded INERCO the contract for the design, supply, installation and commissioning of Continuous Emission Monitoring Systems (CEMS) for the chimney and the two ITABO I and ITABO II units at its Itabo power plant, located in the province of San Cristóbal (Dominican Republic).

The Itabo power plant is a coal-fired thermal power plant with an installed capacity of 260 MWe, located 2 kilometres west of the western coast of the port of Haina and with high availability within the Dominican energy system. It is 50% owned by Grupo Linda and the remaining 50% by the Dominican Government.

The contracting of emission monitoring services by AES DOMINICANA has been based on INERCO's extensive experience in emission measurement and the construction of continuous monitoring **equipment** associated with large combustion facilities, such as those that form part of the Itabo Power Plant. Thus, for the design, supply and installation of the various CEMS, INERCO contributes its specific knowledge of the technology of the units to be monitored, in addition to its experience. ensuring compliance with both EN and USEPA regulations.

A key aspect of the work carried out has been the selection of the measurement method to be used for the CEMS gas parameters, which has made it possible to combine the use of the best measurement technology with the optimisation of the tasks associated with the periodic and corrective maintenance required by these systems. Also noteworthy is the use of a wet-based extractive analysis system (which prevents the formation of acid mists in the system and reduces the need for preventive maintenance), as well as the use of an internal filter wheel in the multi-parameter gas equipment to verify the zero and span adjustment of each parameter, avoiding the use of standard gas bottles with the associated cost savings.

This work is in addition to that carried out for other INERCO power generation customers in the Dominican Republic, such as GERDAU METALDOM, EGE HAINA and NATURGY, among others.

### **LOCATION**

Dominican Republic

CLIENT

**AES DOMINICANA** 





Source: AES DOMINICANA

# Environmental Technologies and Engineering

### INTENSIFICATION OF SOIL AND WATER REMEDIATION AND DECONTAMINATION **ACTIONS IN INDUSTRIAL SITES AND AREAS OF THE AMAZON RAINFOREST IN COLOMBIA AND PERU**

Following on from the detailed characterisation of soil and groundwater, health and environmental risk analysis, and the development of decontamination plans carried out in previous years, INERCO intensified the development of various soil and water decontamination actions at sites in Colombia and Peru for various clients in 2024

Much of this work in both countries has focused on two different types of sites:

- a. Areas or sites of industrial or oil facilities: mainly characterised by historical contamination.
- b. Natural areas without industrial development or jungle: characterised by the absence of industrial activity, where contamination has occurred recently due to leaks or spills from oil pipelines, spreading over relatively short periods of time to an environment characterised by high natural value.

In both cases, INERCO's experience in analysing alternatives and decontamination techniques is a notable added value, although complementary contributions from the Soil Division and INERCO's groundwater services applied in both situations are key to the effective recovery and restoration of these areas, such as:

- With its extensive technical knowledge and ability to apply specific soil restoration and cleaning techniques, depending on the type of contaminants and the characteristics of the affected areas. INERCO applies different remediation processes, defined on a case-by-case basis, optimising decontamination times and costs. all under continuous environmental control.
- The consideration and integration of social communities and environmental characteristics in the remediation process, both in terms of information and consideration of implications for and from the various stakeholders, and in terms of collaboration and skilled employment for some of the tasks to be carried out, are essential.

All these developments have not only increased INERCO's teams' soil exploration and remediation capabilities, but also expanded them to areas with special or unusual characteristics, allowing us to achieve proven satisfaction for our clients in all cases.





Source: INERCO

**LOCATION** Colombia and Peru **CLIENTS** CONFIDENTIAL

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# Environmental Technologies and Engineering

### **EXPANSION OF CONTRACTED EPC ACTIVITIES AT THE BÍO-BIO REFINERY IN CHILE**

The year 2024 marked the **completion** of the project to increase storage capacity at the Bío Bío Refinery, operated by ENAP in Hualpén, Concepción (Chile), for **INERCO**'s EPC Projects business line.

At the same time, following the successful completion of the two new 50,000m<sup>3</sup> crude oil tanks, as well as the crude oil lines, steam lines, firefighting network and associated facilities, INERCO's team began a new Project at the end of 2024 to expand the interconnections at ENAP's Bío Bío Refinery.

The project, in EPC (Engineering, Procurement and Construction) mode, covers interconnections, civil works, electricity and instrumentation, and services associated with a new 20,000m³ multipurpose tank at ENAP's Bío Bío Refinery.

The launch of this new EPC project has enabled us to continue providing specialised technical services to our client, through personnel with extensive experience in the facilities and processes, knowledgeable about the circumstances and operating modes in Chile, all of which allows us to optimise the planned deadlines and budgets.

**LOCATION** Concepción (Chile) **CLIENT ENAP** 





Source: ENAP

# **Energy Technologies and Decarbonisation**

### DESIGN AND AUTHORISATION OF RENEWABLE METHANOL PROJECTS AT **MAGNON'S FACILITIES IN SPAIN**

Just as 2023 marked a significant boost in engineering developments associated with renewable hydrogen generation projects, in 2024 the hydrogen technology line of INERCO developed important projects derived from it, such as the renewable methanol projects carried out for the company MAGNON (part of the ENCE Group) at its existing biomass power generation sites in Puertollano and Mérida, Spain.

Both projects are based on the use of biogenic CO<sub>2</sub> currently generated in the boilers of both plants, integrating and developing INERCO's equipment (hydrogen and methanol technologies, CO<sub>2</sub> capture, engineering, safety and environmental technologies) with the information, processes and characteristics of the sites and business plans, in coordination with MAGNON.

The need for an adequate definition in conceptual engineering is an absolute advantage for the development of viable projects, both environmentally and technically, as well as in terms of energy and operations. Added to this is the need to comply with the demanding european regulations governing the production of renewable fuels (such as RFNBOs), as well as the principles of sustainable financing, which underpin the approval of European and national funds.

Aspects such as energy integration, effluent reuse or recycling, proper management of atmospheric emissions and appropriate abatement systems, the best available technologies, the definition of industrial safety and occupational risk prevention aspects and, most notably, the management of social aspects and information for the project environment have been of particular importance for these projects.

All this with a single development objective for our teams: to achieve viable environmental sustainability solutions in a comprehensive and effective manner for our clients.







Source: MAGNON

# **Energy Technologies and Decarbonisation**

### DESIGN AND INSTALLATION OF SCR SYSTEMS FOR NO, ABATEMENT IN POWER **PLANTS IN ITALY AND CHILE**

**INERCO**'s **extensive experience** and specialisation in thermal technologies for emissions abatement has enabled us to develop in 2024, important projects in the field of reducing **nitrogen oxide** emissions associated with industrial boilers and thermal power generation systems, notably those carried out for major clients such as ENEL in Chile and EP PRODUZIONE in Italy.

In the case of ENEL. INERCO's solutions have been applied to the two recovery boilers at its San Isidro power plant, located in the Valparaíso Region (Chile), which is a combined cycle thermal power plant with an installed capacity of 372 MW<sub>a</sub>.

Furthermore, INERCO has applied its technologies to the three combined cycle units at the Ostiglia Power Plant, located in the province of Mantua (Italy). The combined installed capacity of the plant is 1,164 MW and it uses only natural gas for electricity production.

In both cases, following a specific design adapted to the characteristics of each group, INERCO has applied selective catalytic reduction (SCR) technology for nitrogen oxide emissions, in collaboration with the technologist YARA and including the associated reagent storage and delivery systems. This option allows the reduction of current NO, emissions in the modified facilities by more than 80%.

It should be noted that the design, construction, implementation and operation of the abatement systems developed by INERCO are based on its experience in gas purification systems, as well as its knowledge of boilers and industrial combustion systems.



Source: ENEL



Source: EP PRODUZIONE

**LOCATION** Italy and Chile **CLIENTS** ENEL, EP PRODUZIONE

# **Energy Technologies and Decarbonisation**

### ADVICE AND DEVELOPMENT OF INITIAL ENGINEERING FOR THE DEFINITION OF CO. **CAPTURE PROJECTS IN INDUSTRIAL FACILITIES**

In a scenario where European regulatory requirements, demand and uses, as well as the definition of business plans for activities that include capture in their development, are characterised by complexity and uncertainty, 2024 has seen progress in the developments proposed by **INERCO** for its clients interested in CO<sub>2</sub> capture.

The developments that enable these advantages are based on a (surprisingly simple) combination of approaches, such as:

- Analysis of the technical characteristics of the sites studied.
- Availability of auxiliary equipment and shipping alternatives.
- Viable technological capture alternatives (taking into account the above points).
- Carbon footprint of the CO<sub>2</sub> production chain (upstream and downstream).
- Compliance with European regulations for the consideration of CO2 in the manufacture of renewable fuels of non-biological origin (RFNBO).

- · Environmental assessment and compliance of the principles of sustainable financing.
- Analysis of business alternatives and associated costs.
- Development of conceptual engineering at the selected sites.
- Development of pilot plants for experimentation and testing.

The above issues, inherent in the development of any industrial project in its initial stages, are particularly important in the current scenario, allowing our clients to move forward in these initial stages. position themselves and begin making project decisions with significant CAPEX and OPEX investments.

The comprehensive vision of INERCO's specialists and their advice enables the definition of these projects to be optimised, based on decades of experience and knowledge in capture processes.



Source: INERCO

LOCATION

**CLIENTS** Various

# **Energy Technologies and Decarbonisation**

### COMPLETION AND COMMISSIONING OF THE ENERGY STORAGE SYSTEM USING VANADIUM REDOX BATTERIES AT THE EDP FACILITIES IN SOTO DE RIBERA (SPAIN)

INERCO completed work on the construction of the REDOX battery project at EDP's Soto de Ribera Thermal Power Plant (Asturias, Spain) in 2024. The project consists of a 0.25 MW and 1.05 MW/h vanadium redox flow battery.

The innovative vanadium redox flow technology, developed and implemented by INERCO, represents a significant advance in such important aspects as: high storage capacity, long service life, scalability, high safety and deep discharge capacity without degradation. In addition, they enable high environmental standards to be achieved, as it is environmentally friendly.

INERCO, through its Energy Services and BESS Department, also began commissioning this pioneering storage system in 2024, analysing and optimising the variables and aspects that arose during this stage together with EDP.

It should also be noted that the installed system is fully aligned with the 2021-2030 Integrated National Energy and Climate Plan (PNIEC) and the Spanish Government's Energy Storage Strategy, as well as complying with European environmental objectives for sustainable financing.

**LOCATION** 

Asturias (Spain)

**CLIENT** 

EDP / IDEA

WATCH VIDEO >



Source: INERCO / EDP

# **Energy Technologies and Decarbonisation**

### INERCO IS DEVELOPING THE IMPLEMENTATION OF A DIGESTER FOR THE EXPANSION OF AN EXISTING BIOMETHANE PLANT IN MURCIA (SPAIN)

In 2024, as part of INERCO's collaboration with the company REDEXIS, work began on the expansion of the biomethane plant located in the "La Pinosa" area, in the municipality of Lorca (Murcia, Spain), currently known as BioRed Lorca.

The project enables the sustainable management of around 124,000 tonnes per year of agricultural, livestock and industrial waste for the production of almost 43.11 GWh per year of high-quality biomethane.

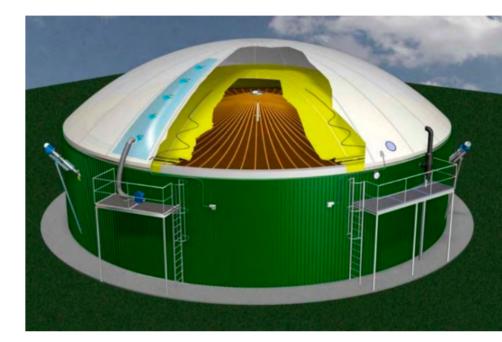
To this end, INERCO has defined a new line for waste reception, digestion and biogas purification, the corresponding detailed developing engineering and managing the purchase of new equipment, advising REDEXIS based on our team's experience in the design and construction of biomethane plants.

The type of project developed represents a significant advance in energy transition and local energy production, contributing to energy and environmental sustainability, given that:

- It enables efficient management of nonhazardous waste, fed and managed through the anaerobic digestion process.
- It reduces greenhouse gas emissions by digesting waste in sealed tanks and using the biogas produced in an upgrading or purification unit for subsequent use.

The above aspects not only drive the key vector of decarbonisation, but also promote and support social transformation in rural environments, given the economic and social improvements that these developments entail.







Source: INERCO/REDEXIS

# Brazil

During 2024, Brazil's economy showed significant growth, although with signs of slowing down towards the end of the year. The significant growth in the country's Gross Domestic Product (3.4%) was mainly driven by the services sector and industry, with Brazilian industrial production achieving its third-best result in the last 15 years.

Similarly, despite the economic slowdown in the last few months of the year, INERCO maintained solid sales levels in 2024, notably securing medium and longterm contracts with some of our main clients in the country, which have enabled us to ensure the activity and development of our Industrial Safety, Occupational Health and Safety, and Environmental Consulting areas, not only in 2024 but also looking ahead to 2025.

We would like to highlight the continuity of our work with **PETROBRAS**. both in terms of the annual assistance provided by INERCO Brazil's teams for chemical assessments, risk analyses and environmental noise analyses at various PETROBRAS facilities in Brazil, and the specific quantitative risk analyses carried out at PETROBRAS' four refineries in the state of São Paulo: Presidente Bernardes Refinery (RPBC) in Cubatão, Paulínia Refinery (REPLAN) in Paulínia, Capuava Refinery (RECAP) in Capuava, and Henrique Lage Refinery (REVAP) in São José dos Campos.

The experience of our Industrial Safety team in Brazil in conducting quantitative risk studies has also been extended to clients such as: NATURGY. DORF KETTAL. CERVECERIA PETROPOLIS or NECTAGAS, with particular

emphasis on HAZOP reviews, SIL studies, SRS definition and SIL verification for DETEN's chemical facilities in Camaçari, in the state of Bahia.

Of particular importance in consolidating our Occupational Health and Safety activity has been the advice provided to our clients in Brazil on Risk Management Programmes (RMPs), as well as hygiene measurements for the issuance of health and safety reports for clients in various sectors, such as: CASTROLANDA, NATURA&CO, BRAMETAL, UNIPAR, ARCELOR MITTAL, VOLKSWAGEN, INSTITUTO BUTANTÁ, TBG and GRUPO AMIL.

As in previous years, the development of chemical agent assessments for our Brazilian clients has been important for our activity, such as those carried out at the VOLKSWAGEN Group and NATURA&CO facilities during 2024.

Finally, in line with the launch in 2024 of the "Nova Indústria Brasil" (New Industry Brazil) plan (NIB) by the Brazilian government, aimed at reversing deindustrialisation and promoting sustainable reindustrialisation, Brazil has also established itself as a key market for the development of INERCO's technological expertise and capabilities in the development, authorisation and installation of renewable energy projects, based on our experience in areas such as renewable hydrogen, ammonia and methanol, CO<sub>2</sub>, and thermal and electrical storage.





Source: Getty Images



Source: VOLKSWAGEN



Source: PETROBRAS

# Chile

The evolution of INERCO's activity in Chile during 2024 has been characterised by significant growth and the achievement of the established contracting objectives. This consolidation has maintained the growth path of previous years, allowing **INERCO**'s activities in Chile to quadruple their orders in the 2021-2024 period, while profits from the activity multiplied sixfold.

However, even more important in 2024 has been the incorporation of an increasing number of INERCO business lines into the already extensive range of solutions and services we offer our Chilean customers. Among these, we can highlight the support and supervision work carried out by our Soil and Groundwater business line during the excavation and removal of contaminated soil in the Antofagasta region due to the rupture of a lubricant pipeline, as well as the development of a HAZOP review of the Bio Bio Refinery by our Industrial Safety colleagues.

Equally important to our sustained growth in 2024 have been our environmental sustainability analyses, notably the studies and impact environmental impact assessments and associated technical and environmental

analyses developed for clients and multinational companies, such as: ALUPAR CHILE and its electrical transmission line development project (Melipilla Project), ENAMI and its Delta Project (to expand the storage capacity and useful life of oxidised and sulphurised mineral plants), AUSTRIA ENERGY and its Los Cerezos, Viena and El Retiro wind farm projects. EDF RENEWABLES CHILE and its wind, solar and battery projects in Thayari and the Waira wind farm. Also important in 2024 were the associated and/or flora and fauna studies carried out for projects by SPA COPIAPORTE OPERACIONES MARÍTIMAS. ECO EARTH ELEMENTS SPA, ELECNOR, INVERSIONES UPPSALA, COPEC and XILIUN CHILE.

Developments in environmental and energy technologies for sectors such as mining, infrastructure and energy also accounted for a significant proportion of INERCO's turnover in Chile in 2024, with significant projects carried out in the field of EPC, SCR systems and acoustics (as previously mentioned in this report). as well as the start-up of the water treatment project using crystallisation systems for the mining company COMPAÑIA MINERA DEL PACIFICO (CMP).

**INERCO**'s developments and maintenance installation of instrumentation and IoT systems for CEMS for various plants of CMPC. GUACOLDA ENERGÍA. ENEL GENERACION CHILE or ENAP. These have been joined by work carried out by the company VIRAGAS (a joint venture between INERCO and ENAGAS) for the detection and quantification of fugitive methane emissions at ENEL CHILE facilities, where detection operations, the supply of emission quantification equipment and training in its use have been carried out.

However, we could not have developed the full potential of our business in our beloved Chile without the opportunities that an economy and a country like Chile offers for the technological development that characterises us, driven in 2024 by the Chilean government in areas that included climate action plans, strategies for the development of hydrogen and renewable fuels, and plans for a just energy transition, among others.



Source: CMP



Source: INERCO



Source: AUSTRIA ENERGY

# Colombia

INERCO Colombia has had a great 2024, with excellent results in terms of contracts, turnover, and profits, well up from previous years. In 2024, it kept its spot as Colombia's top sustainability and environmental consulting firm.

This fact is reflected in the development of environmental documentation and advice that has enabled important projects to be channelled and authorised for leading Colombian companies, notably the updating of the environmental analysis and documentation for the SOTO NORTE SAS project, located in the Soto Norte region (Santander) and focused on underground gold, silver and copper mining, with the aim of minimising any environmental impact on the surrounding area, water and soil. Still in the mining sector, the assistance provided by INERCO's teams in Colombia to the DRUMMOND company deserves special mention, not only in terms of environmental assessment but also in relation to the important social variable that characterises the sustainability of a project, strengthening the knowledge of community leaders and representatives of municipal authorities in citizen participation and environmental licensing mechanisms. This stems from INERCO Colombia's significant experience in providing environmental and social advice, as well as in the management and information framework for communities and stakeholders.

The provision of services to enable and obtain authorisation for projects has also been developed in 2024 in other sectors, notably energy, gas and

infrastructure, with INERCO collaborating on projects for major Colombian companies, including: PROMIGAS, MAINSTREAM COLOMBIA SAS. **CONSORCIO** CONSTRUCTOR SABANA NORTE and MANSAROVAR ENERGY COLOMBIA.

In all these projects, the performance and management of potential archaeological interventions continued to be a fundamental variable in 2024, as reflected in actions such as those carried out by INERCO's team of archaeologists in the municipality of Palmar de Varela (Atlántico), where we proceeded with archaeological prospecting, rescue and monitoring during the implementation of an industrial project. **INERCO** identified a set of archaeological elements, among which ceramics with anthropomorphic and zoomorphic representations stood out. In addition, micro-excavation of funerary urns and the collection of ceramic pieces were carried out.

In addition, multilateral developments for cooperation and interaction with international organisations or agreements (involving several countries) have resulted, during 2024, in collaborations with financial and investment entities, with INERCO being a benchmark in this field in Latin America. Thus, work and assistance were activated for the INTERAMERICAN DEVELOPMENT BANK (IDB), ALTMAN SOLON US, the WORLD BANK and ECO BUSINESS FUND. To this we must add our participation in COP16, held in the city of Cali, within the framework of sustainability and environmental advice for economic activities, which is a fundamental part of our business.







Source: INERCO

# Colombia

A direct consequence of the track record in sustainability developed by INERCO's teams in Colombia during our history was the recognition awarded in 2024 to INERCO as one of the 14 most outstanding Colombian companies for their contribution to knowledge of the country's biodiversity. This recognition was awarded by the Biodiversity and Development Alliance (led by the National Association of Entrepreneurs of Colombia (ANDI), the Humboldt Institute and the Global Biodiversity Information Facility (GBIF). INERCO received the award in the special "Pioneer" category for being the first company to support the alliance "Open data on biodiversity from the business sector", mobilising more companies to participate and publish data, and increasing the contribution of the productive sector to knowledge of biodiversity.

Similarly, in the field of industrial safety and occupational risk prevention, INERCO Colombia has been involved in and complemented a large part of the environmental developments carried out for authorised projects in different sectors, providing assistance in risk analysis, explosive atmosphere studies, good practices, designing and implementing measures for healthy working environments, and providing expert training in both areas. Particularly noteworthy are the risk management plans carried out for GRUPO ENERGIA BOGOTA and PETROELÉCTRICA DE LOS LLANOS, and the design of the hydrocarbon spill monitoring and reporting system using satellite remote sensing (EOS VIEWER) carried out for VARICHEM Colombia. In addition, the WORLD BANK selected INERCO to carry out the compliance audit of the Occupational Health and Safety Management System during the construction phase of the First Line of the Bogotá Metro project, as well as to carry out a comparison and action plan between the international health and safety standards applied to investment projects and the current Colombian regulations.



Source: Banco Mundial



Source: INERCO

# Colombia

Among the technological developments carried out by INERCO, 2024 saw the use of our soil and groundwater line in various recovery and decontamination projects (as previously mentioned in the "Main projects" section of this report), with INERCO's experience in the application of in situ decontamination techniques and in the operation and cleaning of areas that are difficult to access being of fundamental value to our clients in Colombia. Similarly, among the acoustic solutions developed by INERCO for different clients and activities in Colombia, the technical feasibility studies and designs for the acoustic barriers at El Dorado International Airport in Bogotá, developed in collaboration with the company ODINSA, were particularly noteworthy.

Finally, in line with the policies implemented in 2024 by the Colombian government for the implementation of energy transition, renewable energy and circular economy plans (especially in the regions of Antioquia and Cundinamarca), INERCO laid the foundations that have enabled the launch of the rest of its technological lines related to all areas of industrial sustainability, particularly those specialising in: emissions monitoring and abatement, water treatment, hydrogen and derivatives, thermal or electrical storage, biogas and CO<sub>2</sub> capture.



Source: INERCO

# Spain

For INERCO in Spain, 2024 represented a continuation of the growth and achievement of the business objectives set in previous years and planned for 2024. All this was achieved by taking advantage of a national environment of high investment and project development, which requires technology companies to overcome existing regulatory and technological uncertainties in order to advance in all areas of investment brought about by new approaches to sustainability, decarbonisation and renewable energies.

As in the other territories where we operate, the availability of knowledge and technologies that all our lines contribute to obtaining sustainability solutions was the real driving force behind the growth of our activity in Spain last year. This begins with the very definition of decarbonisation and renewable energy projects, for which the lines of our INERCO Energy Technologies and Decarbonisation Division have provided a clear starting point in 2024 in a scenario of technological uncertainty:

- a. The existing need for conceptual and basic engineering for hydrogen projects has expanded, requiring integration with CO, capture technologies and biofuel production, as well as feasibility, technical and economic analyses. This assistance has been provided to several of our major clients in Spain, such as: DH2 ENERGY, REPSOL, MAGNON, AVALON RENOVABLES. MOEVE, ET FUELS SPAIN and STATKRAFT.
- b. The design and engineering of biomethane plants has advanced. This has resulted in viable projects

and processes, with budgets tailored to each specific case. In 2024, our biomethane division was able to combine this assistance to our clients with engineering development, facility modifications, and technology supply and/or installation. Notable cases include those implemented for our clients: BIORED LORCA, GREEN ARANDA TECH, REDEXIS RENOVABLES, AZORA CAPITAL, MOEVE, SAVILCOM, HY FIVE HYDROGEN, ENERGY GREEN GAS ALMAZÁN, VORN BIOENERGY IBERIA, MYKONOS POWER and YANARA POWER.

c. Appropriate advice and customised sizing for each installation and the operational and usage requirements of electrical energy storage systems (BESS) or industrial self-consumption, where technical knowledge and experience in the installation and commissioning of real systems made a significant difference for our customers in this line of business. Among these, we can highlight the analyses carried out for EDP ESPAÑA and the commissioning of its storage plant using redox flow batteries in Soto de Rivera (Asturias).

In addition to the above, INERCO's team has extensive experience in established technologies, such as those associated with the implementation of catalytic (SCR) and non-catalytic (SNCR) nitrogen oxide abatement systems, from our Thermal Treatment line, which grew significantly in 2024, not only internationally but also nationally. Noteworthy examples include the supply and implementation of an SCR system for Gas purification at the Roviña waste recovery plant for GREENE ENTERPRISE, and preliminary engineering







Source: INERCO



Source: FNAGAS

# Spain

and design studies for a thermal storage system (using proprietary salt technology) for IBERDROLA at its site in Lada (Asturias).

Our previous technological base in decarbonisation and sustainability solutions and projects has directly fuelled and complemented the capabilities of our environmental line in Spain, which maintains our position as the leading national environmental consultancy in terms of the type and volume of projects and clients. Not only has this enabled us to obtain authorisation for a significant number of projects related to renewable and decarbonisation technologies in 2024, but it has also allowed us to adapt existing industrial facilities to new environmental requirements, developing the necessary urban planning analyses to address most of these modifications with confidence. This has made projects viable from their conception, under the best possible conditions and within the best possible timeframes. To this end, INERCO offers a wide range of services, including: environmental assessment and environmental authorisations, authorisations for discharges, waste and concessions, sustainable financing analysis, taxonomy and DNSH (Do Not Significant Harm), assistance from resident technicians, atmospheric, discharge and noise modelling, urban planning, flora and fauna analysis, assistance with greenhouse gases and carbon footprints, CSRD reports, and the development of decarbonisation roadmaps or environmental quality plans.

All of this has enabled INERCO's environmental assistance in Spain in 2024 to materialise for the main companies and industrial associations operating in the country, including ENCE, MAGNON, MOEVE, REPSOL, BP, EXOLUM, ENDESA, ACCIONA, DECAL, FERTIBERIA, ATLANTIC COPPER, PRISMORE CAPITAL, DH2 ENERGY. BASF, DOW CHEMICAL IBERICA, DAMM, REDEXIS, CUNEXT COPPER INDUSTRIES, HUNAN YUNENG, HEINEKEN, ARCELORMITTAL, ACERINOX, AIQBE, VOTORANTIM. CEMENTOS PORTLAND VALDERRIBAS. OFICEMEN, UMICORE, EQO, NESTLE, DUPONT, FORESTAL DEL ATLÁNTICO, CORTEVA, DERETIL, IGNIS, CAPITAL ENERGY, VENATOR, INDORAMA VENTURES QUIMICA, ELIX POLYMERS, THARSIS MINING, COBRE LAS CRUCES, QUÍMICA DEL NAÓN and SCANMETALS IBERIA, among others.

A fundamental addition has been the completion of engineering work in 2024 for a significant portion of the projects previously defined and processed, with the number of hours worked increasing again compared to previous years. This engineering development, characterised by feedback between the technical and environmental constraints within our departments, once again stands out for the adaptation of Energy Complexes and Parks such as those of REPSOL in Cartagena and Puertollano, MOEVE in Palos de la Frontera and San Roque, and the EXOLUM facilities.



Source: REPSOL



Source: INFRCO

# Spain

In the field of **industrial safety**, the analysis of existing facilities and projects was once again an important year for our Industrial Safety line, which focuses on the development of specialised risk studies in industrial facilities (HAZOP, emergency plans, RAMS, quantitative risk analysis, safety studies, SIL) for a wide range of engineering firms and industrial clients, such as: MOEVE, BP, REPSOL, TÉCNICAS REUNIDAS, NESTLE, AIR LIQUIDE, INIMA, INDRA, SENER, PLASTIC ENERGY, INQUIBA, COBRA, FERTIBERIA, EXOLUM, MAXAMCORP HOLDING, ENAGAS, COX ENERGY and INDORAMA. Added to this is REPSOL's renewal of the satellite system for detecting potential spills in the receiving environment (EOS VIEWER), and the provision of dedicated industrial safety technicians to various clients. In the field of Occupational Risk Prevention, INERCO has collaborated with many of its previous clients, notably in the emergency and environmental drills carried out for EDP ESPAÑA, the review of incident quality for REPSOL and the analysis of suspended loads for NAVANTIA. In addition, INERCO has worked with SECMOTIC on the European artificial vision project "ICOS Solution Development SafeWorkNet (SWN)" to minimise the risk of accidents and ergonomic risks in industry.

In terms of acoustic solutions, the following stood out: the development of acoustic studies for most of the projects authorised by INERCO, the implementation of exterior and interior measures for clients, such as the dismantling, supply and assembly of silencers for cooling towers carried out for SEPI, and the measures implemented for REPSOL at its refinery in A Coruña and at its facilities in Monzón (Huesca). In addition, portable and reusable acoustic barriers (Echo Barrier) were used in construction works, and acoustically saturated areas were monitored.

In the area of soil and groundwater, 2024 saw the development of diagnostic studies, both exploratory and in the construction phase, as well as the complete definition of areas potentially affected by contamination. Both of these are preliminary steps for conducting risk analyses or designing and implementing recovery techniques, where appropriate. The combination of our sampling and analysis capabilities with the implementation of recovery measures allows us to minimise the economic cost of these measures while ensuring the environmental viability of the solution.



Source: MOEVE



Source: INERCO

# Spain

Furthermore, INERCO's capabilities in relation to effluent treatment have focused in 2024 on both design analysis for water supply and wastewater treatment for industrial projects and facilities, and on the construction of industrial treatment plants. In both cases, INERCO's specialisation in a wide range of water treatment techniques (such as physical-chemical treatment, reverse osmosis, vacuum evaporation or mechanical compression) enabled us to ensure the appropriate quality of water supply and discharge, both at the design stage and during the operation of installed plants, including zero discharge systems. Among the treatment plants installed in 2024, the following are particularly noteworthy: a vacuum evaporation treatment system implemented for a client in the non-ferrous metallurgy sector; the installation of a mechanical compression evaporator at the HITACHI ASTEMO factory in Buelna to treat acid water and drilling fluids, and a mechanical compression evaporator to treat and recycle contaminated water from the treatment plant of a company that manufactures coin blanks.

Finally, in the field of continuous emissions monitoring, INERCO has continued to supply, assemble and calibrate automatic measurement systems for clients such as MOEVE, CRM SYNERGIES and GREENERGY, among others. Of particular note is the start of a three-year assistance programme for ENDESA to carry out regulatory emission control and SAM calibration/verification at its power plants in Andalusia, Ceuta, Melilla and the Canary Islands. In addition, INERCO has optimised sulphur recovery plants developed for REPSOL and MOEVE in 2024, as well as carrying out work to detect and quantify fugitive emissions of methane and volatile organic compounds (VOCs) for various industrial activities and gas companies.



Source: ENDESA

# **USA & Canada**

The year 2024 has seen the continuation of the collaboration started in 2023 between INERCO and INERCO E-Tech with AMAZON in the United States, for the development of various indoor noise reduction plans at AMAZON USA's CMH4 plant in Columbus, Ohio.

Thus, in 2024, INERCO expanded the work initially contracted for this plant and completed it, achieving the optimisation and reductions planned for indoor noise at this facility.

Furthermore, our presence in the US enables the rest of our business lines to participate in technological projects and investments developed in this territory, with 2024 being an important year in terms of permanently consolidating our presence in the US.

Similarly, INERCO's specialised activity in the optimisation of sulphur recovery units in refineries is worth highlighting, with our US location being one of the key points for these technical developments. In this regard, the technical training in sulphur and amine plants developed in 2024 in San Antonio (Texas) is particularly noteworthy.









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# United Arab Emirates (UAE)

**INERCO** has continued in 2024 with the launch of the work and procedures necessary to promote our new headquarters in the United Arab Emirates (UAE), located in the city of Abu Dhabi.

To this end, contacts have been maintained with large companies and operators in the country, in addition to exploring possible collaborations with partners operating in the UAE.

The economic and industrial growth of the UAE in 2024, together with the progress made in energy transition and sustainability projects and plans, has enabled the launch of initiatives that required the expertise provided by our lines of work in relation to the technological development of renewable energy and fuel projects.

Among the first projects and developments, we would highlight the implementation of a chimney testing programme at gas processing facilities in Habshan, with the aim of implementing predictive emission monitoring systems (PEMS). This work was carried out by INERCO Inspección y Control.

The foundations laid by INERCO in the United Arab Emirates in 2024 will enable the gradual implementation of our business lines, providing added value to our customers in the region, with the aim of providing technological solutions in sustainability for the various activities and companies present in this market.







Source: ADNOC Gas

# India

**INERCO**'s headquarters in India has a primarily technological objective based on **optimising the combustion facilities** used in the country's activities. In collaboration with our partner, the Indian company UNICON, **INERCO**'s combustion **emission abatement technologies** are being promoted in India, including the joint execution of EPC projects that may arise in this regard.

During 2024, following the completion of work carried out for the Bandel Thermal Power Station in Bandapara (developed for WEST BENGAL POWER DEVELOPMENT CORPORATION), **INERCO** did not carry out any new developments or implement its abatement technologies during that year.

We would like to highlight the visit made by Mr. Ram Shankar, CEO of UNICON, to INERCO's facilities in Seville (Spain) in 2024, with the aim of strengthening our strategic alliance, our mutual **commitment** to promoting innovative and sustainable solutions, and maintaining our commitment to the Indian market.







Source: INERCO

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# Mexico

INERCO's activity in Mexico in 2024 was characterised by the analysis of commercial and business opportunities that would enable us to promote new lines of business that were not yet consolidated in the country, as well as advancing the collaboration of our teams in Mexico with the rest of our offices in multinational projects, based on the experience of the former.

Of particular note is the consolidation of our soil and groundwater line, which in 2024 carried out characterisation work and adjustments to an environmental contingency plan for an industrial client following a pipeline rupture in the state of Tabasco.

Particularly noteworthy have been the developments in our acoustics line, which has not only successfully completed the acoustic screening of Section 3 for the TREN MAYA between the towns of Dzitbalché and Citilcum, but also expanded our collaboration to include the installation of acoustic screens in Sections 1 and 3 of the same project, under an EPC contract awarded by the LAMAT Consortium. In addition, INERCO supplied soundproofing solutions to several clients, also developing vent silencer analyses and carrying out acoustic measurements in industrial facilities. Notable among others are the developments carried out for: BALPER BAJÍO,

CONTOUR GLOBAL. ARGLASS and BABCOCK & WILCOX, among others.

In the field of work carried out by INERCO's Industrial Safety division, we would highlight the safety studies carried out for the operator DUCTOS Y SERVICIOS DE MEXICO, consisting of the development of an industrial safety, operational safety and industrial environmental protection management system (SASISOPA) for a natural gas transport system for the company's own use, CRIS-P GREENH. In addition, **INERCO** carried out field work for PEMEX to validate the Instrumented Safety Systems for packages 2 and 3 at the Dos Bocas Refinery.

Of particular importance in 2024 was the completion of **HAZOP** studies for industrial clients, such as those developed for the expansion of the ammonia and carbon dioxide plants at the Obregón brewery, owned by CONSTELLATION BRANDS, and the revalidation of the HAZOP study for the phthalic anhydride plant at the Altamira I Complex (Tamaulipas) as well as the update of the HAZOP for the substance unloading and storage areas at the La Presa facility (Tlalnepantla de Baz), both belonging to the ORBIA ADVANCE CORPORATION group. These services were also provided for clients such as SAINT-GOBAIN, KUORA, AXESS and ICA FLÚOR.





Source: PERENCO

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# Mexico

In terms of occupational risk prevention assistance, in 2024, the INERCO team in Mexico stood out for its project monitoring and analysis to reduce occupational accidents and illnesses through compliance with occupational health and safety regulations at COCA COLA plants in northwestern Mexico, as well as for conducting hygiene assessments and audits for PERENCO MEXICO, CODEMEXICO, ALPURA, BASF, VIBRANTZ, and JUGOS DEL VALLE.

Finally, among the services provided by our environmental division in 2024, we would highlight the technical and economic studies carried out for TAG PIPELINES (a subsidiary of PEMEX), the contracting by IENOVA (SEMPRA Group) of expert support services during the process of renewing environmental guarantees for natural gas transport subsystems in the Sonora area, and support services for BASF in integrating compliance reports on the terms and conditions of the Environmental Impact Assessment authorisation and the Monitoring Programme, as ruled by SEMARNAT.



Source: CONTOUR GLOBAL



Source: ARGLASS

## Peru

**INERCO**'s activity in Peru has been a clear example of the (successful) growth and development policy of our lines of business in the territories where we operate, characterised in 2024 by the fulfilment of objectives and an increase in profits, as well as through the development of important infrastructure projects.

Thus, in the field of environmental and social assistance, we should highlight significant electrical interconnection projects developed in Peru, such as those carried out for the company CONSORCIO TRANSMANTARO (ISA CTM) and referred to earlier in this report (Belaunde Terry - Tarapoto Norte; Huánuco-Tocache-Celendín-Trujillo), for the interconnection of Central-North Interconnected System with the South Interconnected System in the National Interconnected Electrical System (SEIN). Participatory workshops were also held prior to the preparation of the Detailed Environmental Impact Study.

They were joined by those hired by ALUPAR PERÚ to obtain the Environmental Impact Statement (EIS) environmental certification for the "L.T. Ejidos - Chulucanas 60 kV (L6657C)", whose purpose is to improve the operation of the electrical system that serves the demand in the region of Piura, as well as contracts for the preliminary evaluation assessment of the socio-environmental risks of the comprehensive projects "L.T. 500 kV Chilca CTM Carabayllo - Third Circuit" and "New Hub Poroma Substation (First Stage) and 500 Kv Hub Poroma - Collector Link", extensions and associated substations. In addition, ELECNOR Peru hired INERCO to conduct a detailed environmental impact study for the "138 kV Puerto Maldonado -Iberia transmission line" project, which will supply and reinforce the SEIN.

Similarly, within the framework of the Daniel Alcides Carrión Highway Project (New Central Highway) contract, INERCO Peru carried out the EIA-d for the "New Daniel Alcides Carrión Central Highway (CDACNCC)" project for PROVIAS NACIONAL. All permits were obtained from the authorities, baseline survey activities were initiated in new project areas, and coordination was carried out to hold new citizen participation workshops and complete the baseline survey during the dry and wet seasons in 2024. In addition, the second round of associated participatory workshops was successfully completed.

For generation facilities, STATKRAFT PERU, INERCO prepared the detailed Environmental Plan for the Cheves Hydroelectric Power Plant, which included water quality monitoring, hydrobiological monitoring, and sediment and dilution studies.





Source: STATKRAFT

### Peru

Furthermore, our experience has enabled us to continue providing combined services to Peruvian airport facilities, combining our environmental and social expertise with our acoustics services, including the contract with LIMA AIRPORT PARTNERS for the execution of the Aeronautical Impact and Risk Study for the Biodiversity Action Plan (in Zone 4), as well as the amendment to the Environmental Impact Statement for Piura Airport, for AEROPUERTOS DEL PERÚ, consisting of the construction of a perimeter fence and other auxiliary areas for the maintenance and security of the airport facilities, with the aim of guaranteeing the efficiency and safety of aeronautical operations for local communities. In addition, the contract for INERCO Acústica to provide aircraft noise monitoring services (GEMS) at Jorge Chávez International Airport in Lima has been extended for 30 months.

Also in 2024, INERCO's soil and groundwater team continued to carry out remediation and clean-up work at various sites, including those located in areas of Amazonian rainforest, and managed information and resources for the surrounding communities. Within INERCO's range of services and technologies, our Inspection and Control line developed the validation of the CEMS at ENEL's Ventanillas Power Plant in Peru, after successfully completing the **implementation** and validation of the CEMS at the Malacas Power Plant.



Source: ENEL



Source: MTC

# Portugal

In a scenario of moderate growth in Portugal's economy and industrial production in 2024, INERCO grew to exceed its contract targets, significantly increasing the volume of production and profits obtained in our Portuguese operations and offices. This solid and sustained growth has been a constant feature of INERCO Portugal in recent years, thanks to the good work and development of its lines of action in the country.

Our main developments in Portugal in 2024 were thus based on two fundamental pillars of the business: Industrial Safety and Occupational Risk Prevention. The first of these stands out for the completion of multiple safety studies and risk analyses for leading companies in Portugal, including: HAZOP-SIL for REPSOL's new polymer manufacturing facilities in Sines, the revalidation of HAZOP for the facilities of COMPANHÍA LOGÍSTICA DE COMBUSTÍVEIS (CLC) in Aveira da Cima, or the Safety and Emergency Plan for the future hydroduct of the Reganazaré Project. In addition, SEVESO risk analyses and projects for the definition of fire protection systems for facilities producing biomethane, H, and renewable ammonia have been carried out for clients such as BONDALTI. PROFICO AMBIENTE, QUADRANTE ENGENHARIA and IBERDROLA, or the classification of substances and risk analysis for the new Lagoa Salgada Mine in Setúbal, for EMPRESA DE DESENVOLVIMENTO MINEIRO (EDM), as well as risk and safety studies carried out for GALP, HOVIONE, PLASTIC ENERGY, BONDALTI and CIMPOR.

Furthermore, in the field of occupational risk prevention, INERCO continues for another year to develop service organisation contracts for clients such as C&A and EQUINIX, having also carried out the adaptation of the HSE management system at EXOLUM AVIAÇÃO PORTUGAL, S.A. and the HAZID and risk assessments for PETROTEC.

Special mention should be made of the extensive training offered by INERCO in 2024 in Portugal, both in terms of emergency training and occupational risk prevention. Examples include training in first aid, selfcontained breathing apparatus, safety coordinators, ATEX and risk analysis developed for various clients, such as EXOLUM, CIMPOR, REPSOL POLÍMEROS, ASCENZA, INCHEMICA and BANCO DE PORTUGAL.

As part of the expansion and collaboration of services between our offices in Portugal and Spain, we can highlight the joint development of the basic project and coordination of works for the expansion of the EXOLUM hydrocarbon terminal at Lisbon Airport, carried out jointly by the teams at INERCO Portugal and Ingeniería de España.

Also noteworthy are the fire protection developments carried out for the lithium preparation unit project at the AURORA LITHIUM facilities in Setúbal, and the fire protection analyses developed for the Mozambique LNG Project, carried out for SAIPEN at the Afungi production site near Cabo Delgado in northern Mozambique.









Source: REPSOL

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# Other countries

**INERCO**'s activities are not limited to the countries where we have offices, but rather rely on them to maintain our **expansion** in recent years to more than 70 territories around the world, as the multinational company we have become. This growth in new territories (and in traditional ones, even though we do not have offices there) also continued last year, mainly associated with the provision of technologically advanced services in the field of sustainability, from the different perspectives and solutions that are necessary. Our alliances with companies and partners, as well as with investment groups, help us in this expansion of our solutions at an international level.

A clear example, from the point of view of our technological lines, has been mentioned earlier in this report, referring to the application of nitrogen oxide catalytic reduction (SCR) technology to the three combined cycle units at the Ostiglia Power Plant (Italy) owned by EP PRODUZIONE. The competitiveness of INERCO's Thermal Technologies line in emissions abatement at an international level is a clear example of its ability to compete globally, based on experience and the guarantees offered.

This need for technological expertise beyond the borders of our established territories was also evident in 2024 with requests received from various Italian companies to establish partnerships in the engineering and construction of biogas plants, which marked the beginning of these developments and partnerships outside Spain.

Of particular importance in INERCO's activity in 2024 were the contracts awarded by AMAZON to INERCO for the definition and installation of acoustic solutions at its French plants LYS1 (Sevrey) and ORY1 (Saran), as well as at its Italian plant TRN1 (Torrazza Piedmonte).

VIRA GAS has also carried out work in Italy, specifically in the LDAR analysis of fugitive **emissions** for ENAGAS in sections of the Trans Adriatic Pipeline (TAP), a gas pipeline owned by the gas company that connects Turkey with Italy. Also in the field of emissions control, in 2024 we continued our collaboration with industrial clients in the Dominican Republic, specifically for the implementation of CEMS systems at the Itabo Thermal Power Plant, owned by the company AES DOMINICANA.



Source: AMAZON



Source: TAP

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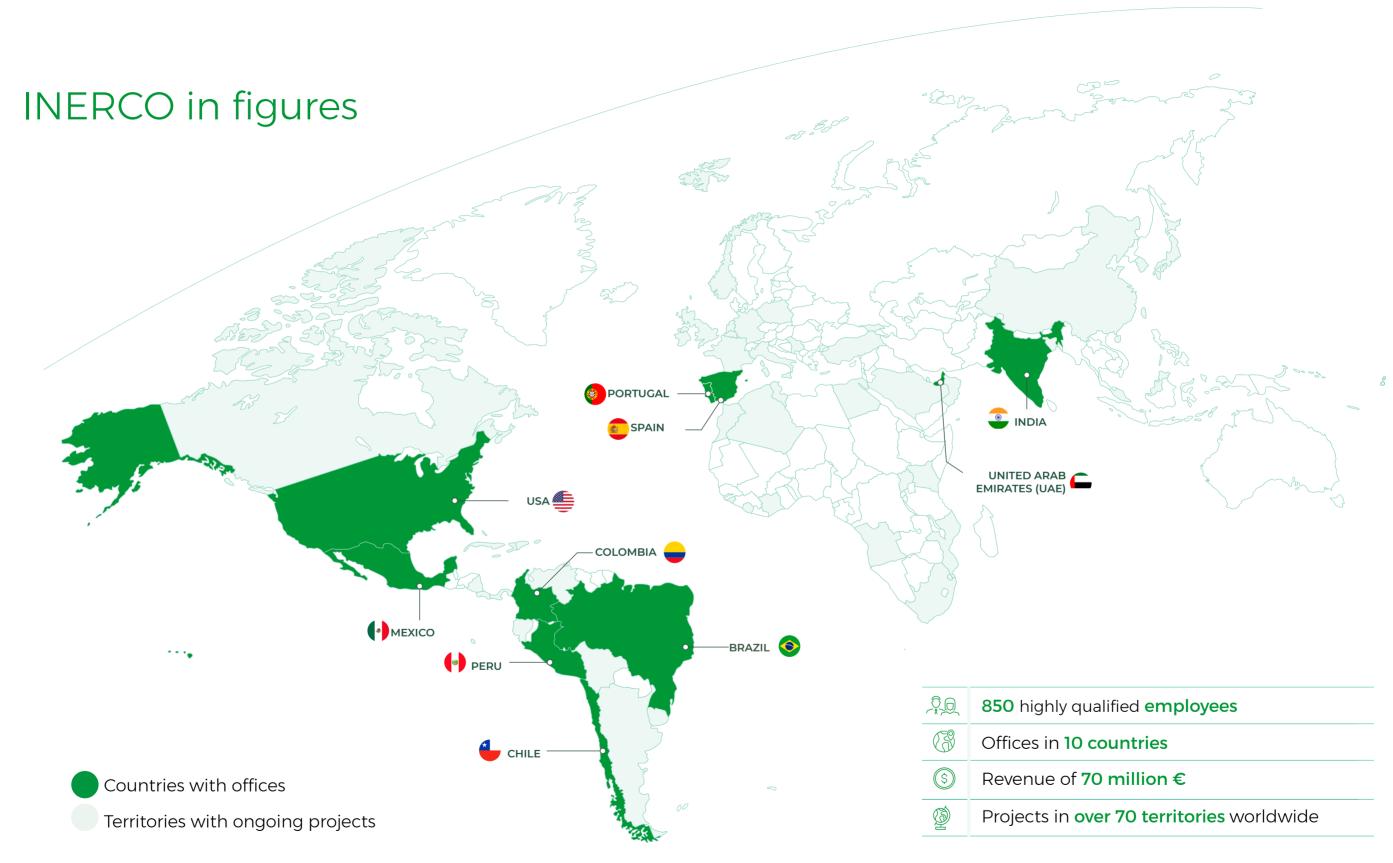
# Other countries

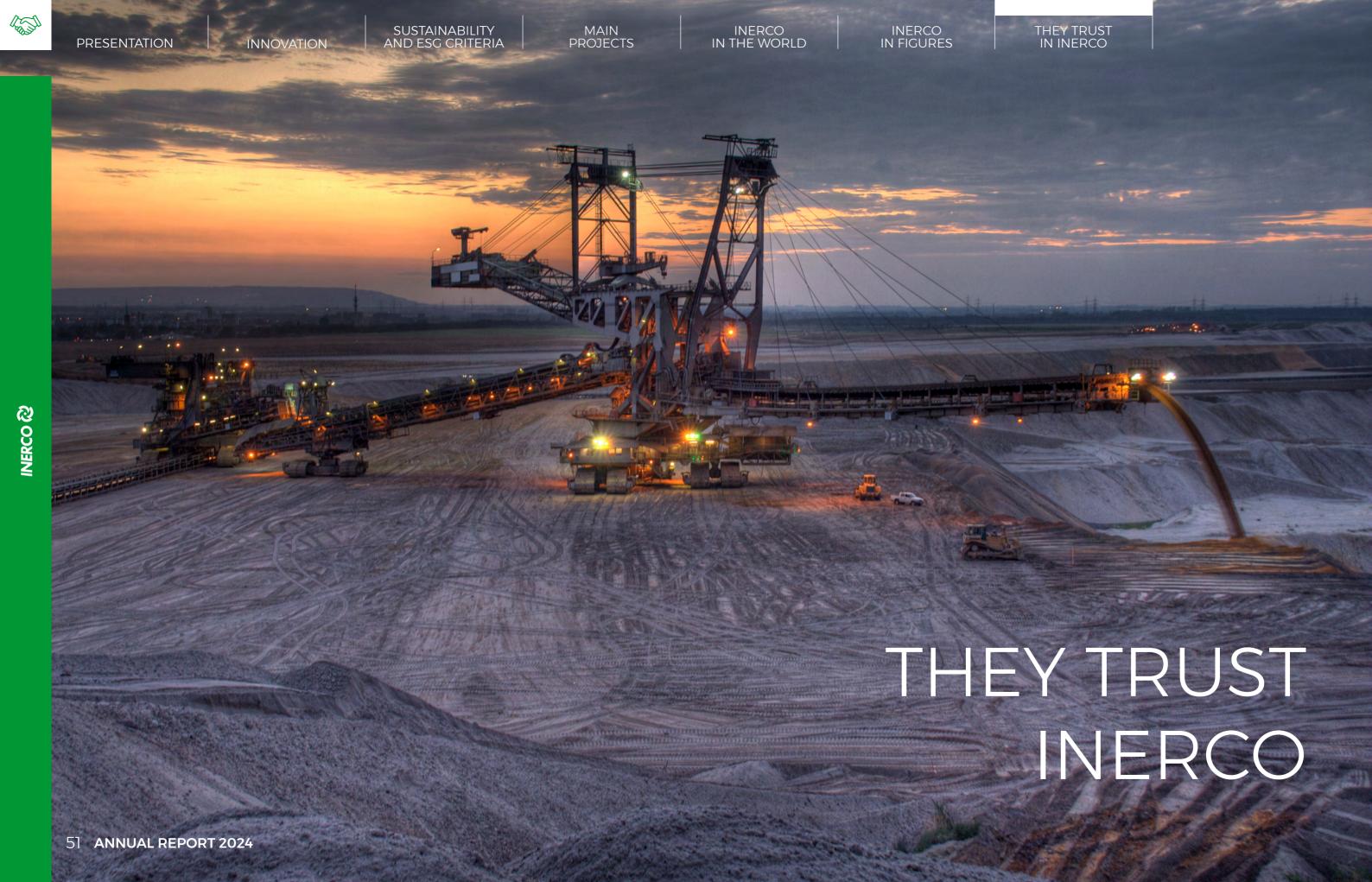
Finally, our consulting services were requested internationally and outside our home territories (beyond the multilateral work carried out for global banks and financial institutions) in the areas of the environment, industrial safety, and occupational risk prevention. Some examples include:

- a. The training provided by our teams in Mexico and Colombia to ACCIONA Mexico's environmental and social departments on environmental regulations in Costa Rica, Panama and the Dominican Republic, which are key to the future construction of solar and wind projects in these countries, as well as the development of an environmental impact study, management system and negotiations with stakeholders for the construction of climate-resilient roads in Guyana, contracted by the Inter-American Development Bank (IDB).
- b. The preparation of **self-protection** documentation for the SAETAYIELD solar thermal plant in Casablanca (Morocco).
- c. The analyses carried out on the occupational health and safety standards applied to the VOTORANTIM CIMENTOS factories in Hasanolang and Sivas, Turkey.









OIL & GAS

























































#### CHEMICAL AND PETROCHEMICAL













































































#### **ENERGY AND GAS**



















































































































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#### **ENGINEERING AND INFRASTRUCTURE**



































































#### PAPER AND CELLULOSE





























#### MINING





































#### **CEMENT, STEEL AND METALLURGICAL**













































#### AERONAUTICAL, AUTOMOTIVE, TRANSPORT





































#### **PORTS**

















#### **PHARMACEUTICAL**

















#### **AGRI-FOOD**









































#### **OTHER**

































































#### **PUBLIC BODIES AND INSTITUTIONS**





















































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