

ARPEL's ACHIEVEMENTS 2019

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Introduction

In 2019, ARPEL defined its four strategic lines of work:

Energy

Transitions considering the society's demand for an economy with lower carbon emissions

Operational

excellence with the focus on optimizing management aiming at process safety, digitalization and industry competitiveness

Sustainable

Management meeting the demands of the sector and the expectations of its stakeholders in the global support to achieve the Sustainable Development Goals

Communication and Institutional Relations

with its members and with all stakeholders related to the development of the sector in the region in general and to the sustainability of the ARPEL Mission in particular

Each strategic line has one or more strategic objectives that ARPEL member companies established as a reference to clearly distinguish the value of being a member of a regional association with the Mission to "Promote the integration, growth, operational excellence and effective socio-environmental performance of the industry in the region, facilitating the dialogue, cooperation, development of synergies among players as well as the shared creation of value among members through the exchange and expansion of collective knowledge."

ARPEL's Strategic Lines and Objectives

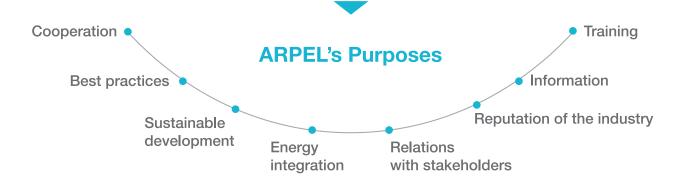








WORK PLANS DEVELOPED BY ARPEL COMMITTEES



During 2019, serving the purposes set forth in ARPEL Bylaws, member companies, under the coordination of the Executive Secretariat, continued to develop their work through established committees, working groups and project teams. The **results** of the activities as well as the services, products and projects developed were presented in **ARPEL 2019 Annual Report.**

ARPEL member companies include national and international companies, and service providers. The scope of the operations of member companies increases the complexity of the diversity of its membership; there are integrated companies, companies that operate only in the upstream sector and others operating only in the downstream sector. This makes the assessment of the fulfillment of their expectations different from the achievements reported by ARPEL.

Objective

The purpose of this report is to provide **ARPEL Member Companies** with a perspective on the **ACHIEVEMENTS** made through collaborative work. These achievements reflect the **INTANGIBLE VALUE** that ARPEL provides to its member companies and to the industry, which are grouped into the four **strategic lines and objectives**, while fulfilling **the purpose**s for which the Association was created.

The **achievements** made arise from deliverables or activities developed by ARPEL that have a positive impact according **to the perspective of the member companies and the main stakeholders** to whom those deliverables/activities were directed.

The achievements presented arise from initiatives and activities developed by ARPEL in combination with other factors that act as impact multipliers and contribute to the strategic objectives of the Association.

Regional integration and development of unconventional hydrocarbons in Colombia.

Since 2016, ARPEL has been disseminating its White Paper "Opportunities for the Development of Unconventional Oil and Gas in Latin America and the Caribbean (https://arpel.org/library/publication/462/). among various stakeholders. In September 2019, at the request of the Vice-Ministry of Energy of Colombia, ARPEL coordinated the visit of a delegation of seven Colombian government agencies to Argentina to learn more about the regulatory framework that this country developed for the exploitation of unconventional deposits and socioenvironmental risk management, as well as the impact on local and national economic development.

ARPEL coordination involved authorities from the Federal and Provincial Government of Argentina and several Colombian ministries. Participants included several ARPEL members with operations in Vaca Muerta and national oil industry organizations from Argentina and Colombia.

At the end of 2019, the Government of Colombia allowed advancing exploration activities in comprehensive pilot research projects on unconventional hydrocarbon reservoirs, which is considered vital to the expectations of this country as regards avoiding a future energy deficit.

(COM2 + COM3 + P3 + P4 + P5)







Mature fields: Energy security and development in Ecuador and Brazil

Considering that 70 % of oil production in Latin America comes from mature fields, in 2018 ARPEL developed the White Paper "Systemic Approach to Improve Recovery Factors of Oil Resources" https://arpel.org/library/publication/516/). The document covers aspects related to the use of modern technology as well as regulations that favor the extension of the life cycle of mature fields and access to energy in the region.

ARPEL was invited to present the key findings of the document in Ecuador and Brazil, two countries in which the topic is essential for both energy security and socio-economic issues. ARPEL member companies and government authorities from these countries participated in the event. Both events were carried out in coordination with local oil industry associations.

The presence of ARPEL at these events – sharing the key messages of the White Paper between business executives and government authorities – enabled us to strengthen the relationship with our members as well as to establish important connections with other companies interested in opportunities for these operations in both countries.

(COM2 + COM3 + OE2 + P2 + P3 + P4 + P5 + P8)







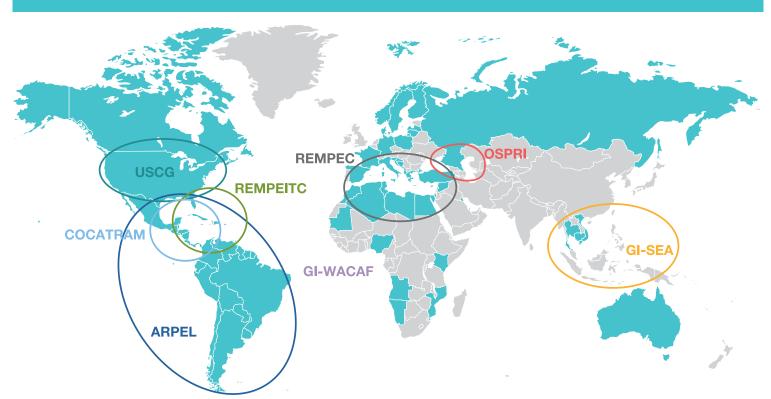
RETOS – More than just a tool for assessing oil spill response management

Oil spills are a permanent risk in an industry whose main business is to produce, transport and process hydrocarbons. In 2011, ARPEL developed RETOSTM (Readiness Evaluation Tool for Oil Spills - https://arpel.org/library/publication/341/), a tool that provides a consistent means through which companies and governments can assess the degree of preparedness and identify gaps in their response to oil spills.

ARPEL develops training courses to disseminate knowledge and explain the value of the use of this tool by those in charge of oil spill contingency planning. Through ARPEL network of relations with national, regional and extra-regional institutions, the dissemination of this tool has expanded and RETOSTM is a tool increasingly recognized by companies and governments.

A new record of its use by companies and governments in 79 countries on five continents was reached in 2019. This led the International Maritime Organization to include the reference to RETOSTM in the updated edition of its Manual on Oil Pollution that all UN countries use as a reference to develop their national contingency regulations and plans.

(COM2 + SM1 + OE1 + P2 + P5 + P8)



COCATRAM	Central American Commission of Maritime Transportation
COCATRAIN	Central American Commission of Mantime Transportation
REMPEC	Regional Marine Pollution Emergency Response Centre
	for the Mediterranean Sea
REMPEITC-Caribe	Regional Marine Pollution Emergency, Information
	and Training Contro. Caribo

USCG	United States Coast Guard
	(Caspian Sea, Black Sea, Central Eurasia)
OSPRI	Oil Spill Preparedness Regional Initiative
GI-SEA	Global Initiative - Southeast Asia
GI WACAF	Global Initiative for West Central and Southern Africa

Integration and responsible leadership

With the participation of 29 leaders and future leaders of 12 companies (10 members and 2 non-members), the 2019 edition of the Leadership Program (https://arpel.org/programa-alta-gerencia/) showed a 30 % growth in the number of companies and an increase of over 25 % in the number of participating countries compared to the first cycle held in 2018. Thus, this Program continues to expand the network of senior executives and future industry leaders in the region, helping to generate a consensus view on the main considerations for leading energy transitions within their companies.

(ET1 + COM3 + P1 + P4 + P8)



Cooperating for operational and management excellence

5.1 Implementation of best practices

The next step to ARPEL developing best practices is to assist member companies in implementing them. In 2019, three pilot self-assessment exercises were performed on the maturity of the process safety management system in different companies using the tool that ARPEL developed for this purpose. All the results of these exercises were shared with the Committee delegates. This allowed companies to identify their gaps and rely on the ARPEL business community to implement their plans to bridge these gaps.

(OE1 + OE2 + COM3 + P1 + P2)



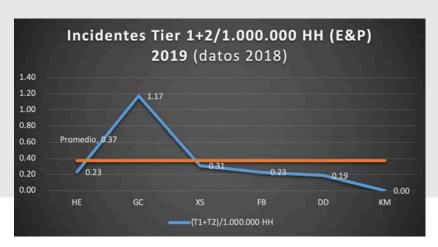




5.2 Benchmarking A tool for continuous improvement

In 2019, ARPEL member companies completed uninterruptedly 23 years of annual benchmarking on incidents and industrial safety management, with over 1 billion man-hours reported in all the functions of the sector. Environmental performance benchmarking has also been performed during 11 years, accounting for approximately 50 % of production and refining in Latin America and the Caribbean. Moreover, in the third consecutive year of benchmarking on process safety incidents, there are already 15 member companies reporting their information. These studies have enabled (and continuously enable) the identification of gaps and opportunities for technical exchanges between leading and lagging companies, so that

our members achieve their goals of developing operations that are increasingly safer and have minimal impact on their workers and the environment. (OE1 + OE2 + COM3 + P1 + P2)



5.3 SDGs and collaborative work at ARPEL

Along the line of the international oil industry, our member companies recognized the value of developing collaborative work on sustainable management issues under the umbrella of the Sustainable Development Goals (SDGs). To this end, a working group was created with professionals from member companies who will assess the situation of companies regarding the SDGs, and a roadmap will be established to focus the work of the Association on this strategic line. ARPEL is using its institutional relations to seek synergies in the development of this topic with IPIECA, OLADE, UNDP and CIER.

(SM1 + COM2 + P1 + P2 + P3 + P5 + P6)



5.4 Cybersecurity in company management

Since 2015, ARPEL has continuously positioned itself as a regional leader in the area of cybersecurity. During 2019, as part of continuous improvement in the area, training courses for managers in this area in member companies continued. As a result of one of the courses in Argentina, senior government officials held high-level meetings with the leaders of a member company operating in Argentina in order to coordinate a common strategy for industrial cybersecurity.

(OE2 + P1 + P2 + P5 + P8)





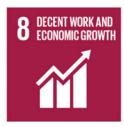


































The importance of ARPEL institutional relations

6.1 Promotion of the use of natural gas in the region

In November, the second edition of the Latin American Gas Conference (LGC) was held in Lima, Peru, concurrently with the OLADE Energy Week. Government authorities from Argentina, Brazil, Cuba, Ecuador, Trinidad and Tobago and Peru attended the event. The LGC is an initiative carried out in cooperation with the International Gas Union - IGU (with which ARPEL has had an agreement since 2017) and with the Latin American Energy Organization - OLADE, in order to offer a space for dialogue of the gas industry with the governments of Latin America and the Caribbean. This event has allowed us to approach executives of some international non-member companies in the sector and to establish a space to raise some concerns of the sector with government authorities in the region.

(COM1 + COM2 + P1 + P4 + P5)





6.2 Pipeline management and operation

Geotechnical Conference IPG 2019 was held within the framework of the joint initiative of ARPEL with ASME. It included a plenary panel of senior executives on comprehensive asset management to face geohazards, a matter of particular concern to companies in our region, particularly – but not exclusively – those with pipeline systems neighboring the Andean basin. This joint initiative gave origin to direct communication instances with senior executives of member and non-member companies.

(ET1 + OE2 + COM2 + COM3 + P1 + P2)







6.3 ARPEL regional mission is complemented by that of national oil associations

The agreements of ARPEL with the National Chambers and Institutes of Oil and Gas consolidate its regional network by helping our association strengthen as a regional articulator of the sector and count on strategic allies for actions at the national level.

6.3.1

In 2019, institutional agreements were signed with the Colombian Petroleum Association (ACP) and the National Society of Mining, Petroleum and Energy (SNMPE) of Peru.

The ACP assisted ARPEL in coordinating the participation of the Colombian oil industry in the unconventionals project in Argentina, along with the IAPG, with which ARPEL has been working collaboratively for several years. This is expected to be a first step in bringing ARPEL closer to companies operating in Colombia.

On the other hand, the SNMPE became a vital ally for the dissemination of the Conference ARPEL 2020 (now 2021). **(COM 1 + COM2 + P5 + P7)**





6.3.2

The workshop on mature fields in Ecuador was a resounding success thanks to the coordination of ARPEL with the Association of the Hydrocarbon Industry of Ecuador (AIHE), with which ARPEL signed an agreement several years ago (COM2 + P5 + P7)

6.3.3

The participation of ARPEL in Rio Pipeline 2019 in Brazil strengthened ARPEL as an IBP ally by positioning us as a regional reference/influential association in the sector on issues related to midstream operations in Brazil, and allowed showing the work of ARPEL on specific technical issues. In addition, it gave ARPEL and the American Petroleum Institute (API) an opportunity to cooperate specifically on issues related to management of control rooms. **(COM2 + P2 + P5)**







Objectives and Purposes

Strategic Lines

Strategic Objectives

Energy Transitions

EΤ

ET1 | To generate a **common understanding** on the subject of energy transitions within the framework of member companies

ET2 | To identify the opportunities and risks for the oil and gas industry arising from the global process of energy transitions and provide **support to** management of its member companies in adapting to the new business scenario

ET3 To strengthen ARPEL position as **an influential organization** in the most significant global and regional discussion forums on climate change and energy transitions

Operational Excellence

OE

OE1 | To promote and facilitate the **optimization** of operations, safety management, environmental protection and asset integrity of member companies

OE2 | To foster **cooperation** and **exchange** of knowledge among member companies and with key stakeholders in technology, innovation and digital transformation in order to improve management efficiency

Sustainable Management

SM

SM1 | To promote the **exchange** of information and experiences, and the **implementation** of best practices in corporate sustainability to meet the demands of major stakeholders

Communication and Institutional Relations

COM

COM1 | To increase the **representativeness** of the Association in the industry of the region

COM2 | To maximize the **impact** of the work of the Association through **collaboration with** key **stakeholders**

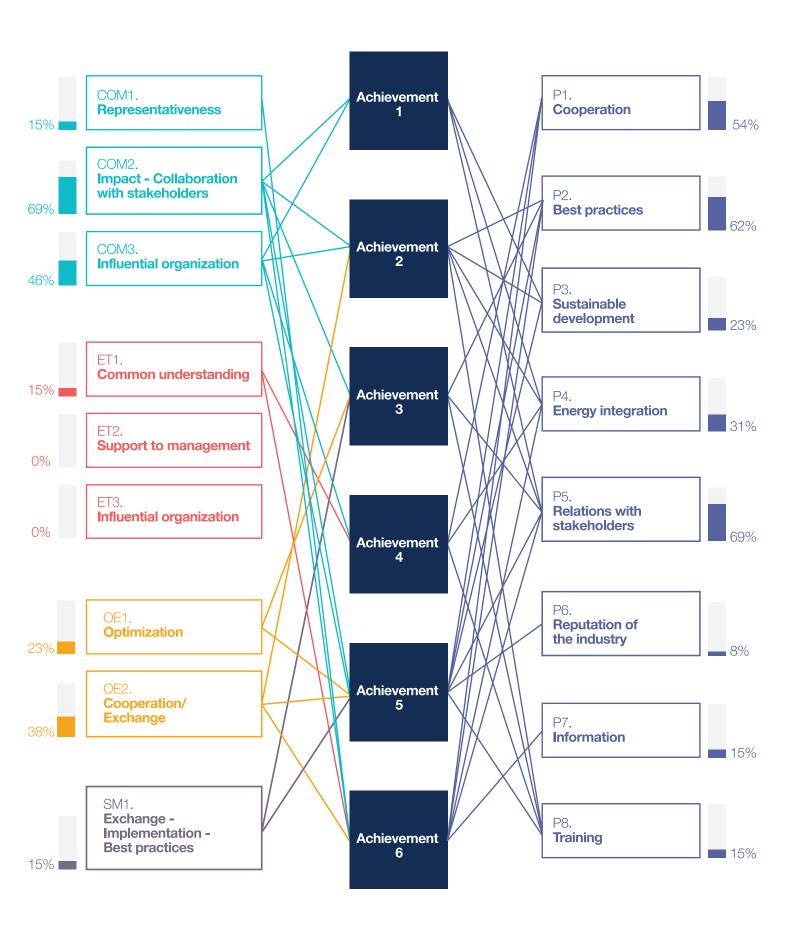
COM3 | To strengthen relations with member companies



ARPEL's purposes

- P1 | Vehicle of relationship, cooperation and synergic partnership among its members
- **P2** | Catalyst for knowledge exchange among its members, and means for promoting the development and implementation of **best practices** and solutions to ensure continuous improvement
- P3 | Forum for the regional analysis and dissemination of the industry progress regarding **sustainable development**
- **P4** | Forum for the regional analysis and dissemination of progress regarding **energy integration** and security
- **P5** | Vehicle of relationship and dialogue among the industry and its main **stakeholders**, and regional body of industry representation
- P6 | Regional means for joint action to help enhance the industry reputation
- **P7** | Focal point of **information** about industry activity in the region
- **P8** | Regional support institution facilitating the development of sectoral activities and the provision of **training**, certification and technical support services

Contribution to the ARPEL's Strategic Objectives achieved through ARPEL's Purposes



Conclusions

The strategic line of Energy Transitions only began to be developed in ARPEL in mid-2018, and was completed with the development of ARPEL White Paper "Energy Transitions in Latin America and the Caribbean - *The Role of the Oil and Gas Industry*" (https://arpel.org/library/publication/519/) in January 2020. For this reason, in 2019, no achievements have been identified to meet the strategic objectives of Energy Transitions ET2 or ET3. However, there are some interesting achievements to report in 2020 in relation to these objectives.

ARPEL member companies have not yet defined the main areas of action of the Association in the strategic line of Sustainable Management. Only in 2018 has ARPEL started to work ad hoc on the issue of Sustainable Development Goals, and it is necessary to establish appropriate instruments to collaboratively develop this strategic line. For this reason, few achievements are noted associated with the strategic objective of Sustainable Management and a concomitant low application of ARPEL's purpose of helping to improve the reputation of industry (P6). The development of the roadmap for the focus of the future work of ARPEL on sustainable management issues is part of the Work Plan for 2020.

An important contribution of ARPEL achievements is noted in the strategic lines of Operational Excellence (an area in which ARPEL has been working through its Committees for more than 30 years) and Communications and Institutional Relations.

However, there are few achievements associated with the strategic objective COM1 ("Increase the representativeness of the Association in the industry of the region.") This objective – associated with the actual or potential increase in ARPEL membership – deserves special attention from ARPEL representatives, who should work in cooperation with the Executive Secretariat to increase the number of member companies. It also represents an important signal for ARPEL to focus on the effective implementation of the programs to strengthen relations with member companies and attract new members, both approved by the Board in 2019.



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ARPEL is a non-profit association gathering oil, gas and biofuels sector companies and institutions in Latin America and the Caribbean. Founded in 1965 as a vehicle of cooperation and reciprocal assistance among sector companies, its main purpose is to actively contribute to industry integration and competitive growth, and to sustainable energy development in the region.

Its membership currently represents a high percentage of the upstream and downstream activities in Latin America and the Caribbean and includes national and international operating companies, providers of technology, goods and services for the value chain, and national and international sector institutions.



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