



MESSAGE FROM THE BOARD

YPF QUÍMICA EN CIFRAS 2022

BUSINESS PROFILE

VALUE CHAIN AND BUSINESS SEGMENTS

- 01. COMMITMENT WITH SUSTAINABILITY
- 02. YPF QUÍMICA.
  INTELLIGENT CHEMISTRY
  FOR A SUSTAINABLE
  ENERGY TRANSITION
- 03. CLIMATE ACTION
- 04. SUSTAINABLE PRODUCTION
- 05. PEOPLE
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#### **MESSAGE FROM THE BOARD**

Committed to being accountable before our stakeholders, we are pleased to present our second Sustainability Report. One of YPF QUÍMICA's premises is to communicate clearly, objectively, and transparently the company's contribution to sustainability projects. Thus, the 2022 report outlines our strategy, commitments, goals, indicators, performance, and environmental, social, and governance (ESG) practices.

YPF is the lead in energy transition and it has a strong commitment in improving management of diversity and equal opportunities. YPF Química contributes to that journey towards a more sustainable and equal world through an integrated and intelligent chemistry, with new and improved, innovative, and technological products.

In order to improve YPF QUÍMICA's value proposal, new product lines are being developed, supplying the Argentine Oil & Gas market with a line of innovative chemicals, developed locally with Y-TEC's technology. The Company also continues to make progress in circular economy projects that transform plastic waste into higher value-added products through chemical recycling, generating non-conventional raw materials to be used in our industrial complexes for the production of circular products.

This path is developed based on the principles and foundations of the Operational Excellence Model, which allows the Company to deploy its business while guaranteeing the safety, health, and well-being of people, caring for the environment and ensuring

the reliability and integrity of its assets and operations.

Sustainable management implies a major challenge for our company and its business units. Besides society's expectations, and the regulatory changes in the different markets where we market our products, we are challenged to review our business strategy in advance in relation to social and environmental sustainability models.

We are committed to the socio-economic development of the regions in which we operate and to improving the quality of life of society as a whole, respecting human rights and the environment, in accordance with the principles of the United Nations Global Compact and the Guiding Principles on Business and Human Rights, and inspired by Sustainable Development Goals.

We joined the Corporate Diversity and Inclusion Plan, participating in the LIFE Program to promote female leadership roles. Regarding integration with our communities, it is worth highlighting the Energy Space, which promotes education, innovation, and technology and which received more than 8,000 students during 2022.

Taking as a basis YPF's sustainability strategy and goals, we are working to meet the expectations of these challenges. During the period of this report, we have moved forward in YPF Química's business Sustainability Plan. As a result, a Strategic Model was generated, defining 6 priorities: People, Shared Social Val-



ue, Sustainable Production, Climate Action, Governance, and Partnerships. We are also in the process of defining sustainability goals for each of the aforementioned areas.

This report shows what has been accomplished so far in our work to become a sustainable company. Our goal is to do this work responsibly,

with discipline and at a pace that makes a positive difference. The information in this second report represents the achievements and challenges being managed towards a more resilient and sustainable business model.

This report provides an overview of our progress to date, as well as the values that inspire us along the way.

**Martina Azcurra**Executive Manager of YPF Química

#### YPF QUÍMICA

2022 SUSTAINABILITY REPORT

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#### YPF QUÍMICA EN CIFRAS 2022

#### 1,204 kt/YEAR OF **PRODUCTION**

# ONE OF THE COUNTRY'S LEADING PETROCHEMICALS **MANUFACTURERS** 

1.268 kt SALES



1.307 **MILLION ARS REVENUES** 

**75**% NATIONAL PURCHASES

#### 300 DIRECT EMPLOYEES

6,7% **WOMEN** 55% WOMEN IN **LEADERSHIP POSITIONS** 



+200 CUSTOMERS **LOCAL MARKET: 49% EXPORT MARKET: 8%** 

**INTERNAL SALES: 43%** 

#### 2 INDUSTRIAL **COMPLEXES**

**ENSENADA INDUSTRIAL** COMPLEX - PROVINCE OF **BUENOS AIRES** PLAZA HUINCUL INDUSTRIAL COMPLEX - PROVINCE OF NEUQUÉN



12,8% GJ/PRODUCTION UNIT **ENERGY INTENSITY** 



22,8% OF TOTAL **ELECTRIC POWER CONSUMED** RENEWABLE ELECTRIC CONSUMPTION

0,57 tnCO<sub>2</sub>e/PRODUCTION UNIT **GHG DIRECT EMISSIONS INTENSITY** 

2.292 ktn **CONSUMED WATER** 

3.822 Metric tons TOTAL GENERATED WASTE

0,28 ACCIDENT FREQUENCY RATE \$10.400.403 ARS **VOLUNTARY SOCIAL** INVESTMENT



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#### **BUSINESS PROFILE**

GRI: 2-1

YPF QUÍMICA is a business unit of YPF S.A., hereinafter referred to as YPF. Its Executive Management is part of the Executive Marketing Vice-Presidency, hereinafter referred to as VP Marketing, together with the Retail, Industry, Aviation, Agro, LPG, and Lubricants & Specialties businesses. It is one of the largest petrochemical manufacturers in Argentina and the Southern Cone. It produces, markets and distributes petrochemical products manufactured in its different complexes. These are intended for chemical, industrial, and agricultural markets in Argentina, Latin America and the Rest of the World.

Due to its integration with the rest of the businesses of YPF and, in particular, due to its strategic connection with refineries, the Ensenada Industrial Complex (CIE) of YPF QUÍMICA adds value to virgin naphtha, kerosene, sulfur, butane and butene streams, generating octane boosters, solvents, tensioactives, olefins, polymers, and other products which represent the raw material for a wide variety of goods used in everyday life. The Methanol Plant at the Plaza Huincul Industrial Complex (CIPH) is the largest methanol producer in our country. YPF QUÍMICA also markets propylene produced at La Plata Industrial Complex and Luján de Cuyo Industrial Complex. In the latter case, this report only considers the economic magnitudes resulting from these sales.

#### **YPF**

With 100 years of history, YPF is the leading energy company in Argentina. Its activities cover the entire oil and gas value chain in the country, including its production, refining and the sale of its derivatives: fuels, petrochemical supplies, lubricants and products for agriculture, among others. The Company is a leader in unconventional oil and gas resources in Latin America and, additionally, it has a growing business in the generation of energy, as development vector of renewable energy through YPF LUZ.



The headquarters of YPF and almost all of its operations are located in Argentina, although it has some activities in other countries in the region, such as Brazil and Chile, among others.

#### **INVESTORS**

YPF S.A. is a public corporation with legal domicile in Argentina, subject to the public offer system and to the control of the National Securities Commission (CNV) and the Securities and Exchange Commission (SEC) of the United States.

- → 51% Argentine State Ministry of Economy Secretary of Energy
- → 49% BCBA and NYSE

#### **VALUES**

- $\rightarrow$  We act with integrity.
- $\rightarrow$  We are committed to sustainability.
- $\rightarrow$  We create value.
- $\rightarrow$  We focus on the customer.
- $\rightarrow$  We give priority to safety.
- → We value gender equality and respect diversity.







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### VALUE CHAIN AND BUSINESS SEGMENTS

GRI: 2-6

#### **REFERENCES**

- OILAND OIL PRODUCTS
- LIQUID FUELS
- NATURAL GAS
- ELECTRIC POWER

#### 1. NEW ENERGIES. Gas and Energy VP

YPF Energía Eléctrica
S.A. Development of wind and solar energy projects and increased natural gas production to replace fuel oil or diesel power generation.

2. EXPLORATION
CONVENTIONAL Upstream VP
Search and identification of new oil and gas reserves.

#### 3. DEVELOPMENT UPSTREAM VP (CONV. + NOC)

Preparation for production in areas where oil and gas reserves have been incorporated. This includes the definition of the type of development and investment levels.

4. PRODUCTION
UPSTREAM VP (CONV. + NOC)

Conventional and nonconventional oil and gas natural resources recovery through extraction processes. YPF is the leader in oil and gas production in the country.

# 5. INNOVATION AND TECHNOLOGY (Y-TEC Services VP

Strengthening of Y-TEC, a leading company in the generation and transfer of innovative technological solutions for a sustainable energy industry.

## 6. STORAGE AND TRANSPORTATION Downstream VP

Use of oil and gas pipelines, vessels and trucks for transportation of crude oil and condensate, dry and liquefied natural gas. And multi-purpose pipelines, ships and trucks to distribute refined products.

#### 7. REFINING Downstream VP

YPF refines oil for the production of fuels and oil products (lubricants, inputs for plastics and synthetic materials, agrochemicals and fertilizers) in three industrial complexes: La Plata (Buenos Aires), Luján de Cuyo (Mendoza) and Plaza Huincul (Neuquén).

#### F

producer in Argentina through two of its own plants: Ensenada (Buenos Aires), Plaza Huincul (Neuquén) and shareholding in Profertil S.A. Bahía Blanca (Buenos Aires).

YPF is the main petrochemical

## 9. LUBRICANTS AND SPECIALTIES Downstream VP

8. CHEMICAL

Downstream VP

Design, production and sale of lubricants and specialties.

#### 10. RETAIL SERVICE STATIONS Downstream VP

A leading fuel and lubricant retailer and convenience store with more than 1,500 service stations nationwide.

#### 11. AGRO Downstream VP

Selling diesel oil, lubricants, agrochemicals, fertilizers and providing services to the agricultural sector or small and medium-sized companies through YPF DIRECTO.

#### 12. LPG Downstream VP

Fractionation and distribution of liquefied gas for electricity generation for domestic and industrial consumption. Produced in bulk and with bottled gas in cylinders and canisters.

#### 13. INDUSTRIES Downstream VP

Provision of energy, supplies and services to the domestic industry.

#### 14. GAS DISTRIBUTORS Downstream VP

YPF participates in the residential natural gas distribution service through its controlling interest in Metrogas.

#### 15. POWER PLANTS Gas and Energy VP

Supply of natural gas for power generation plants including two of its own complexes, Tucumán Generation Complex and Loma Campana Generation Complex.

#### 16. LNG Gas and Energy VP.

Regasification and distribution of liquefied natural gas in bulk.

#### 17. MIDSTREAM Gas and Energy VP

Processing of produced natural gas, distribution in bulk and through the network to the wholesale market (industries, power plants and gas distributors).

## 18. DOMESTIC AND INTERNATIONAL TRADE Downstream VP

YPF markets crude oil and natural gas condensates, LNG, refined products and petrochemicals relevant to the country's development.





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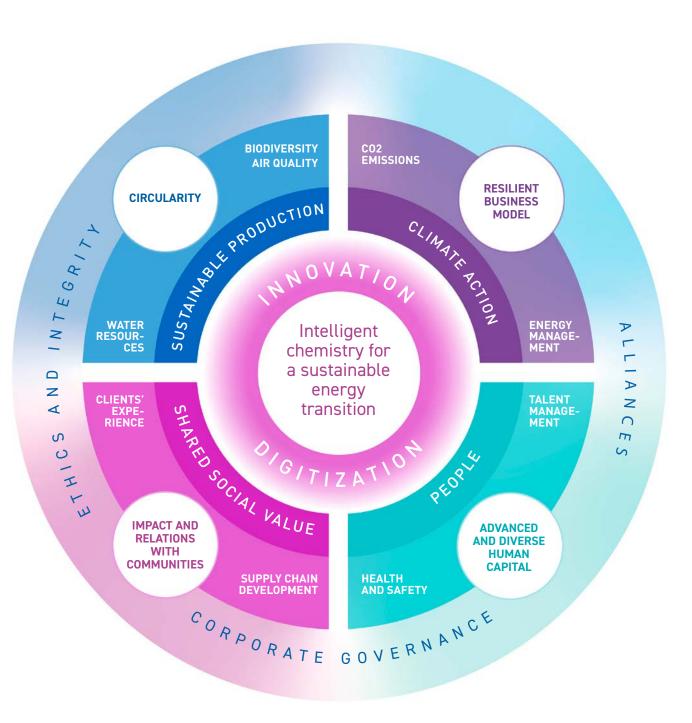
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#### 1.1. SUSTAINABILITY PRIORITIES

GRI: 3-1, 3-2

During 2022, we began the process of drawing up a sustainability plan for YPF QUÍMICA, including Executive Management, Operative Management, key personnel and the external support of a specialized consultant in sustainability topics. This allowed us to generate a Strategic Sustainability Model and, from there, to define lines of action, terms, indicators, and goals.



YPF is the protagonist in the energy transition, and YPF Química adds value to this journey into a more sustainable world through an integrated and intelligent chemistry, with new, improved products, both innovative and technological.

SUSTAINABLE PRODUCTION	CLIMATE ACTION	PEOPLE	SHARED SOCIAL VALUE
We are committed to building a circular economy.	Our business model is sustainable and resilient in the long term.	People are the basis in YPF Química. We have the most advanced human capital who can innovate and offer an intelligent chemistry.	We contribute value in each of the locations in which we operate, boosting the development and competition of the domestic suppliers and integrating them to the supply chain.
We manage our waste and effluents with responsibility in order to minimize their impact and ensure an adequate air quality.	We contribute actions against the climate change, promoting the energy transition towards a low carbon economy.	We manage our talent so people will develop their highest potential.	We assume a key role in professional training within the petrochemical industry.
We develop programs allowing a protection to the ecosystems biodiversity.	We are reducing our CO2 emissions through an efficient management of our operations and optimizing the use of energy.	We build diverse and inclusive teams, whose visions allow us to understand and resolve the challenges in today's world.	We integrate the communities in each of our operations through dialogue and information channels.
	We continually evolve our portfolio by offering products on the market with a lower carbon footprint.	Our model of operational excellency establishes the highest health and safety standards by which we care for each person.	We constantly work to deliver the best experience to our clients.

#### INNOVATION AND DIGITIZATION

We offer innovation through an intelligent chemistry, integrated to our processes, enhancing creativity and the development of new solutions. We believe that the digital transformation is a means to improve the efficiency of the processes, reducing the use of resources and costs, every day becoming a more responsive company.



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#### 2023 GOALS

- → Complete the Sustainability Plan of YPF QUÍMICA
- → Define actions, implementation terms, indicators, and goals

#### Mid-and Long-Term Challenges:

→ FOM Monitoring (Figures of Merit)

#### 1.1.1. CONTRIBUTION TO THE SDGS

GRI: 3-3

The Strategic Sustainability Model of YPF QUÍMICA also seeks to contribute in achieving the Sustainable Development Goals proposed in the 2030 Agenda of the United Nations; we are focused on the SDGs that are aligned with the priorities of the Group and with our material topics.

The following table details the business performance of YPF QUÍMICA, which is aligned with the goals of YPF. Regarding YPF QUÍMICA's strategic and in-house business goals, these are at a development stage, together with the business Sustainability Plan, pending publication with the 2023 Report.

SUSTAINABILITY PRIORITIES	MATERIAL TOPIC	KEYINDICATOR	YPF QUÍMICA'S 2022 PERFORMANCE	YPF QUÍMICA'S 2021 PERFORMANCE	LINKEDSDGS
People	Occupational Health and Safety	Accident Frequency Rate (AFR)	0,28	0,28	5 and 8
	Training and Development	Average hours of training per direct employee	4,2	4,5	_
	Diversity and Equal Opportunities	% of leadership positions held by women	55%	53	
Shared Social Value	Responsible supply chain management	% of purchases in Argentina	75	83	4, 5, 8, 11
	Impact and relationship with communities	Total voluntary social investment (AR\$ M)	10.4	14.4	
Sustainable Production	Water and Effluents Management	Intensity of fresh water collected, K of water/tn of finished product	3,39	3,32	12
	Waste Management	% of Waste Reused + Recycled/ Total non-hazardous waste	82	76	
	CO <sub>2</sub> Emissions Reduction	GHG Direct emissions intensity (tCO <sub>2</sub> e/unit produced)	0,57	0,49	_
	Energy Management	Energy intensity (GJ/unit produced)	12,8	13,5	_
		% energía eléctrica renovable comprada respecto del total de consumo de energía eléctrica	23	27	
		% renewable power bought versus total power consumption.	12.8	13,5	
	Carbon footprint of products	Products with carbon footprint calculation/total amount of marketed products	2/18	1/18	
Governance and Alliances	Regulatory compliance	% of direct employees adhering to the Code of Ethics and Conduct	100%	100%	16, 17
	Relationship with industry and stakeholders	Participation in work groups	100%	100%	



2022 SUSTAINABILITY

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#### 1.2. MATERIAL TOPICS AND **DIALOG WITH STAKEHOLDERS**

GRI: 2-12, 2-29, 3-1, 3-2

We focus on the Strategic Sustainability Model priorities defined for this business. Therefore, we carried out an update of the material topic assessment submitted in the first Report of YPF QUÍMICA. Starting from last year's results, we carried out a revision of the topics, aligning them with the strategic inhouse business priorities defined this year, and those of YPF. A relevance and impact assessment by the business management group was added to this process. For YPF Química, the material topic assessment is an ongoing process and these new results will be a base to continue to deepen the analysis of the impact of these relevant topics, the setting of specific goals, and the plan of action to achieve them.

The main stakeholders are employees, shareholders, government authorities, business partners and suppliers, customers, local communities and academic institutions, media and opinion leaders, with whom we have permanent dialog in formal meetings such as gatherings, presentations, annual meetings, publications in social media, and in specialized magazines, and through our effective participation in Argentina's petrochemical sector organizations.

We have different communication and dialog channels that allow us to be in permanent contact with them, to listen to them, and report decisions.

As a result of this review, the material topics in the environmental dimension are set in the upper quartile of the matrix.



Opportunities

safety and the environment

Transformation

efficiency

Management

20. Human Rights



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DIMENSIONS	STRATEGIC PRIORITIES	MATERIAL TOPICS	IMPACT
	Climanta antian	CO2 and Energy Emissions Management	<b>∻</b>
CIAL	Climate action	CO2 and Energy Emissions Management	•
		Water and Effluents	ş
ENVIRONMENT		Circular Economy	•
	Sustainable production	Air quality and air pollution near populated areas	•
		Biodiversity and impact on ecosystems	•
		Incident Preparedness and Response	•
		Talent Management	•
Sustainable production  Air Bio Inci Inci Social  Social  Share social value  Corporate Governance and transparency  Hurston Leg Cost	People	Diversity and Equal Opportunities	•
		Occupational Health and Safety	<b>?</b>
	Impact and relationship with communities	•	
	Silai e Social Value	CO2 and Energy Emissions Management  Water and Effluents  Circular Economy  Air quality and air pollution near populated areas  Biodiversity and impact on ecosystems  Incident Preparedness and Response  Talent Management  Diversity and Equal Opportunities  Occupational Health and Safety  Impact and relationship with communities  Economic Impact and Local Development  Ethics and integrity  Human Rights  Legal and Regulatory Framework Management  Cost Competitiveness  Innovation and Digital Transformation  Product design for use-phase efficiency	•
		Ethics and integrity	•
		Human Rights	•
		Legal and Regulatory Framework Management	•
COVEDNANCE		Cost Competitiveness	Ŷ
JUVERNANCE	Innovation and to the class.	Innovation and Digital Transformation	Ŷ
	Innovation anda technology	Product design for use-phase efficiency	•
		Management of chemicals to protect safety and the environment	<b>?</b>
	Alliance	Customer Experience	<b>?</b>

#### 1.3. SUSTAINABILITY GOVERNANCE

GRI: 2-9, 2-12, 2-13. 2-14, 2-16, 2-17, 2-19

The Executive Management is responsible for promoting the best practices in sustainability for the business, applying the corporate policies on this topic and monitor their compliance, tasks which it complies with through monthly meetings with the top management of the business.

The corporate framework is described in the Sustainability Policy and is reflected in the Operational Excellence model applied to all activities and extended to suppliers and to partners. As part of this commitment, in 2022, YPF QUÍMICA's Executive Management led, together with the operational managements and key personnel, the process of defining the Strategic Sustainability Model of this business, which is aligned with the strategic plan of the Company. During this development process, measures were adopted to increase knowledge and skills of participants, including intensive training with outer consultants with expertise in sustainability topics.

As next challenge, the business is defining the Sustainability Plan, which will be made up of the lines of action and its corresponding goals. This task is carried out with a permanent dialog with our public stakeholders and incorporates the principles of corporate governance by evaluating risks and opportunities of the context, with a holistic vision in the short, medium- and long-term, and it links these priorities to the institutional purpose of YPF.

Within the approval process of the Sustainability Report of the business, the Executive Management is responsible for reviewing, approving, and submitting the information presented to the Risk and Sustainability Committee of YPF for its validation.

The top executive board, through its Vice-presidencies, sets the goals and monitors the relevant topics to ESG (Environ-



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mental, Social, and Governance), connected to the Company's potential impact. One of the company's strategic goals is the Sustainability Index, a tool that allows the ongoing follow-up of goals, and is composed by: Accident Frequency Rate (AFR) + Dow Jones Sustainability Index (DJSI) + Reduction of CO2e emissions intensity (CO2E) + Diversity of Women in Leadership Positions. This index is part of the variable retribution component for all the teams of people that are part of YPF Química of the Company. At the same time, the Executive Management is responsible for setting, approving, and monitoring the goals of the business itself, in its three dimensions, economic, environmental, and people.

# 1.4. YPF QUÍMICA RISK MANAGEMENT

GRI: 2-24

Regarding timely risk management and handling of potential impact on the business, including those related to sustainability and climate change issues, YPF has a structured, ongoing, and transversal risk management process throughout the organization, including YPF QUÍMICA, based on the guidelines of ISO 31000, COSO ERM standards, and a corporate policy from which rules and procedures applicable to the different areas and business units are derived.

YPF QUÍMICA deals with mapping risks inherent to its area of responsibility, identifying, assessing, and addressing threats, deploying change management processes and implementing recommendations from external experts or undergoing several internal and external audits.

The Risk Management Department of YPF reviews and consolidates data submitted by the units and makes suggestions on the most relevant points detected.

Climate change-related risks are included in this assessment, from a more strategic perspective of business resilience to decarbonization and energy transition trends, in terms of market and on changes in the demand for our products, identification of new businesses, new regulations and carbon taxes, new technologies, or changes in customer portfolio preferences. But they are also focused on the potential physical impact of extreme weather events on operations and assets, and their mitigation costs. Risk management is also of great importance to ensure the health and safety of people, as well as sustainable production, focused on preserving the environment, ensuring the reliability and integrity of assets and operations, and maximizing efficiency in the use of resources.

In YPF QUÍMICA, a matrix of corporate risks for the assessment of industrial risks is applied, and its impact on the environment, people, assets, processes, and image. Based on the risk values shown in the assessed scenarios and their tolerance by the Company, improvement or mitigation actions should be carried out when the assessed risk is out of the established acceptable range.

The figures on the following table represent the number of risks detected by type and class. This was updated in July, 2022.

QUÍMICA EXECUTIVE MANAGEMENT'S RISKS	SUMMARY (CONS	OLIDATED)								
TYPEOFRISK		INHERENT				RESIDUAL				
	MINOR	MODERATE	HIGH	URGENT	EXTREME	MINOR	MODERATE	HIGH	URGENT	EXTREME
Operational Risks	13	6	8	1	-	19	8	1	-	-
Human Resources	3	2	1	-	-	5	1	-	-	-
Financial Resources	-	1	3	-	-	3	-	1	-	-
Commercial Environment	2	3	1	1	-	5	-	2	-	-
Governmental and Regulatory	-	-	7	-	-	1	5	1	-	-
Macroeconomics and Market	-	1	7	-	-	2	6	-	-	-
Social Environment	-	-	-	-	-	-	-	_	-	-
Technology - Safety	2	-	-	-	-	3	-	-	-	-
TOTAL	21	13	27	2	0	38	20	5	0	0



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We have identified those higher-risk scenarios in each of its plants, in which a deviation of the process could create a more severe consequence on people, the environment, assets, processes, or image. These scenarios are reported at the corporate level and the state of the safeguards are periodically updated on-site, with the aim of having the risk controlled and it being accepted publicly by the Company.

In the process of analyzing risks, all Business operative and strategic managements participate. After identifying the risk, the responsible management is defined, which is the main process and the related processes, the risk is described, and exposure to that risk is determined, the probability of this occurring and its consequences. With this data, the risk value is calculated and, based on this, a type of risk on which the following types were defined: low, moderate, high and urgent.

After the assessment and the actions proposal for improvement, mitigation, containment, and reduction, the risk level is reassessed and is presented as Residual.

The high risks faced by the business are:

- → Unforeseen stoppages of own plants, as a consequence of incidents or major accidents. Modification of the program of foreseen plant stoppages. Specification problems of products.
- → Changes in the business environment.
- → Valid claims from the customer portfolio which generate financial compensation.
- → New decrees, new laws that are not in force that could impact the domestic or international planning process.

This matrix is reviewed at least once a year and is within the certification process of ISO 9001 standard in the chemistry business.

#### **1.5. 1.5. HUMAN RIGHTS**

GRI: 2-22, 2-23, 2-24

In YPF, we are committed to respect human rights for all people linked to our operations and activities by exercising due diligence in this subject, and our policies are aligned with the United Nations Universal Declaration of Human Rights (UNUDHR), the International Pact of Civil and Political Rights, the International Pact of Economic, Social, and Cultural Rights, and the Fundamental Rights at Work of the International Labor Organization (ILO), incorporated to the domestic Argentine Law.

Our top executive board monitors the current and potential impact regarding human rights, with specific indicators in the company's ongoing activities. Simultaneously, the Board carries out a follow-up through the Risks and Sustainability Committee, which assesses both the progress, as well as eventual deviations.

#### **NEW HUMAN RIGHTS POLICY**

In 2022, we drew up and approved a new Human Rights and Relationship with the Community Policy, which acknowledges its strategic value in the development of activities in our environment and the relevance to the value chain.

When drawing it up, among the considerations were the UNO and the ILO standards, the YPF Ethics and Behavior Code and Values, and the Risks, Operational Excellency, Sustainability, Cyber-Security and YPF Corporate Safety Management policies, the 10 Global Pact Principles, the ILO Convention 169, and the guidelines on human rights of the Organization for Economic Cooperation and Development (OECD).

The policy was built on a general commitments scheme, and centered around both the people who work directly in YPF, and service suppliers, business partners, and stakeholders, and communities that live in the areas influenced by our operations, including native population.

In the process of the drawing up and approval of the new policy, different YPF Vice-presidencies participated, involving in this way the top management in its development, as well as confirmation by external experts in the subject. Awareness with our collaborators is carried out through self-managed trainings with the Curiosity digital tool by Degreed, available for all people.

After an assessment and definition process, this policy was approved in 2022 to be included in the general clauses of contracts and links with suppliers. For contractors, specific qualification and contractual requirements are established regarding labor relations, quality management systems, safety, health and the environment, which are analyzed in periodic performance evaluations.

## DUE DILIGENCE PROCESS AND PROGRESS IN RISKS MAPPING

YPF has a due diligence in human rights process focused on activities and areas related to the environment, health, safety, labor practices, diversity, inclusion, local communities and the value chain management, in agreement with our Environment, Social, and Health Impact Assessment Policy.

In 2022, we began a risk mapping process in human rights in Química's business within the Marketing VP area. This mapping allows us to identify the area of interest in the activity involved and to define if there is potential risk exists for the breach of a particular human right.

In case this has been identified, an exhaustive assessment of the potential severity is carried out with a team of professionals (internal and external), mitigation measures are proposed, and their evolution is monitored. External experts and the essential and cross-sectional areas of the Company on all levels (directors, managers, heads, supervisors, and cooperators), as well as the inspectors who oversee contractors take part in the task of risks, review, and update of the identification task.

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Among the groups considered by this process are women, local communities, cooperators from our contracted suppliers, migrant workers, boys, and girls.

Furthermore, as input to the assessment, own business Strategic Sustainability Model of Química is taken as a reference and it is linked to the assessment and identification process of those actions that could violate some right as, for example, the assessment regarding strategic focuses such Climate Action, in its material topic of management of emissions and energy; or the strategic focus of People, which proposes its material topic in talent management or Diversity and Equal Opportunities; or in the case of the strategic focus of Sustainable Production, for the Occupational Health or water and effluents management material topics.

From the beginning of the process, no significant impact generated by the activity of the company or a third party have been registered; therefore, YPF has not had to implement mitigation or remediation actions during 2022 in the business of Química.



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#### 2.1. BUSINESS STRATEGY

GRI: 2-22

Petrochemical science is the branch of chemistry that transforms refining crude oil products (naphtha, liquefied petroleum gases and middle distillates), and natural gas, into a vast variety of supplies or raw materials present in practically all our life goods.

As a sector, it is an essential link in each country's productive activity, by generating indispensable intermediate products for other industries, such as food or pharmacy and, thus, generates direct employment and develops a multiplying effect in the economy, strengthening the use of hydrocarbon resources available in the country.

# 96% of all products manufactured in the world today is directly or indirectly related to the chemical and petrochemical industries.

As a business unit of YPF, the strategy of YPF QUÍMICA is integrated into the Company's business strategy. Periodically, YPF updates its business plan with the purpose of strengthening its competitiveness and timely adaptation to the trends that are developing in the global energy system.

The Company leverages the opportunities and resources available to meet current energy needs and, at the same time, works with a long-term vision of the industry's future challenges, with the commitment to contribute to a low-carbon energy matrix and to generate value for shareholders.

# PILLARS OF THE BUSINESS FOR A PROFITABLE AND LOW-CARBON GROWTH

- → Financial discipline and strict capital allocation, focused on the development of our unconventional hydrocarbon areas with competitive advantages.
- → Cost and process efficiency in all business segments in order to ensure resilience, even in low price scenarios.
- → Refinery adaptations to enable increased shale processing and fuel quality evolution.
- → Petrochemistry associated with the growth of natural gas production.
- → Decarbonization of the Company's operations and development of new businesses and low-carbon solutions, such as YPF LUZ production of power.
- → Investment in innovation and technology aimed at a competitive and sustainable business.

For YPF, the opportunity of boosting the future development of petrochemistry is a relevant work focus and, in this way, comprises a decisive role that this business will have in the coming years.

In this sense, YPF QUÍMICA defines the following strategic guiding principles:





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STRATEGIC FOCUS	LINEOFWORK	PROJECTS/ASSOCIATED INITIATIVES			
Current business value	Strengthening the competitiveness of existing lines of business.	Industrial optimization, cost efficiency, storage, commercial, safety, and environmental plans.			
Recovery of natural gas and associated liquids.	Downstream of liquid components of natural gas from unconventional reservoirs. Substitution of imports due to deficits of chemical products and derivatives.	Natural gas and liquid natural gas monetization projects, including methanol, fertilizers and plastics.			
New product lines	Optimizing the product portfolio.  Growth through regional expansion.	Development of new chemical products related to Upstream and Downstream activities.  Personnel and Health Care.			
Market expansion	Enhancing technical and commercial knowledge in new products.	Plans for commercial growth and logistical adaptation in regional markets.			
Sustainability	Circular Economy	Chemical recycling projects linked to the circularity of plastics.  Projects associated to raw materials of Bio origin.			
	Promoting the decarbonization of operations and product carbon footprint management.	Assessment of carbon footprint of products. PCRMA®2 Certification.			
	Enhancement of reporting and transparency of ESG performance.	Frequency of the Sustainability Report.  Launching of YPF QUÍMICA's Sustainability Plan.			

As a business unit of YPF, YPF QUÍMICA's strategy is integrated into the company's strategy. During 2022, we worked to keep the commitment of all stakeholders involved to consolidate the efficiencies achieved, as an essential step to further strengthen the competitiveness and sustainability of the business.

In 2022, we continued with the development tasks of the Modular Chemical Recycling project, which it is foreseen to be operational during the first quarter of 2024. This project, with a high priority among the measures taken by YPF QUÍMICA, will be established as a leading initiative in the region to serve as a starting base to outline the scale to new skills and associations with different parties committed to this topic.

Furthermore, we highlight the important advance in the project of developing new chemical products, leveraged on the knowledge created by Y-TEC, and its successful implementation in different areas of the Upstream business of YPF.

Towards the end of 2022, and as a consequence of the end of the COVID-19 pandemic, the production of sanitizer was discontinued.

#### 2023 GOALS:

- → An Open Innovation Competition to capture ideas that boost current businesses
- → Participation in the "Premio Nacional de la Calidad" (National Quality Prize)

#### MID-/LONG-TERM CHALLENGES:

- → Channel experiences had during the development of the Modular Chemistry Recycling project to use them in a project on a larger scale and scope
- → Conceptualize BIO basket of projects (e.Methanol; Bio-Surfactants)
- → Move forward on the growth of new lines of products (Oil & Gas line)
- → Growth through regional expansion

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# 2.2. MARKETS, PRODUCTS, AND SERVICES

GRI: 2-1, 2-6 SASB: RT-CH-410a.1

The products manufactured and marketed by YPF QUÍMICA are intended for internal consumption (internal sales) of YPF's industrial complexes, chemical, industrial and agricultural markets in Argentina (domestic market), Latin America and the Rest of the World (Europe, USA, or Asia; export market), and represent the raw material for a wide variety of products used in everyday life.

Some examples include: insulating materials used in construction that provide comfort and reduce a home's energy requirements; synthetic fibers used in the textile industry that allow activities to be conducted in inhospitable environments and reduce heating requirements; lightweight polymeric materials that reduce fuel consumption in transportation and allow to better preserve our food; biodegradable cleaning products that protect the environment and contribute to the hygiene in our homes, among others.

YPF QUÍMICA also offers transportation for its products from its industrial complexes to the place of delivery agreed upon with the customer portfolio, either nationally or internationally. The shipping method depends on the product, volume, and destination; it can be by tanker, dump truck, container, isotank or boat.

The following table shows all the sectors and industries supplied by YPF QUÍMICA, the products offered, as well as the origin of the raw material used and its value-added process to meet the demands of our portfolio of customers:



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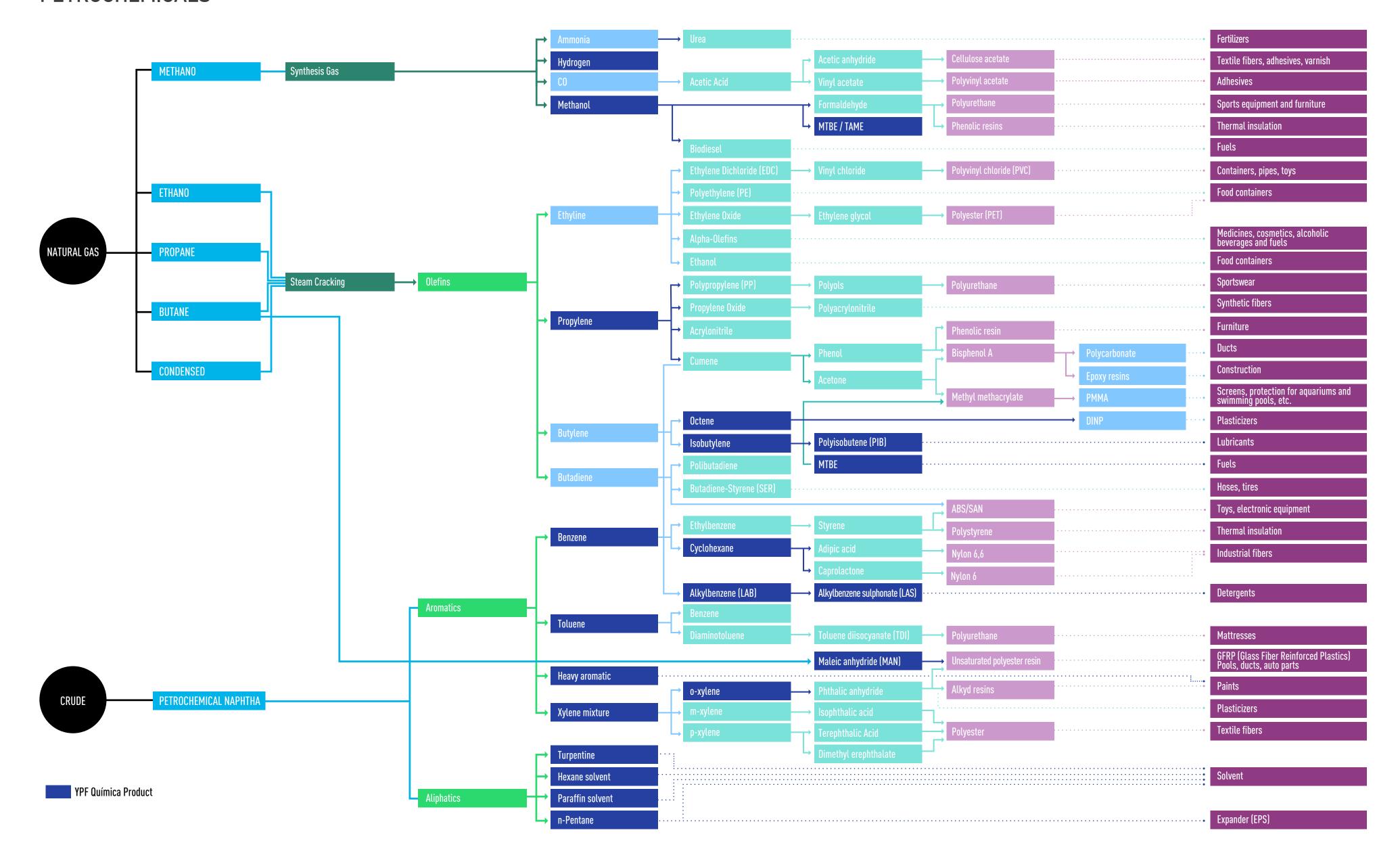
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#### PETROCHEMICALS





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# NEW PRODUCTS DESIGNED TO INCREASE THE EFFICIENCY OF THE RESOURCES (NORMAL PENTANE 80/20)

Historically, expanded Polystyrene (EPS) was manufactured for its main destination market, with a 95% pure Normal Pentane, which is used as a propellant. With the aim of improving the quality of the final product, increase its shelf-life period (or shelf time) and lower the consumption of raw material, the world changed towards a mix of 80% pure Normal Pentane and 20% Isopentane. The Isopentane molecule has two very useful characteristics: because it is branched, less is lost with the passing of time; also, at the same temperature, it expands more than the Normal Pentane, and therefore there will be larger EPS spheres and a final product with a lower carbon footprint.

In 2022, YPF QUÍMICA carried out a project to adapt its facilities and achieve the production of this required new quality, domestic and internationally, for the customer portfolio that produces Expanded Polystyrene (EPS) Sales began in 2023.

## MANAGEMENT OF CHEMICALS TO PROTECT SAFETY AND THE ENVIRONMENT

GRI: 3-3, 416-1 SASB: RT-CH-410b.1

For YPF QUÍMICA, ensuring the safety of the products it offers is a priority. The following table presents the products sold according to the content of hazardous chemical substances for health and the environment, belonging to Classes 1 and 2 of the Globally Harmonized System of Classification and Labeling of Chemical Products (GHS).

GHS CLASS	NAME OF THE PRODUCT IN QUÍMICA'S PORTFOLIO	2022 <sup>1</sup>
Hazardous Classes 1, 2, and 3	Toluene, Benzene, Xylene blend and O-xylene, Normal Pentane, Solvent C, Turpentine and Solvent B, Propylene, Methanol, Cyclohexane and Heavy Aromatics	89%
Hazardous Class 8	Maleic Anhydride and LAS	5.3%
Not classified as hazardous products	PIB, LAB, PEX AE, and PEX AP	5.5%

<sup>1</sup> Criterion: Percentage on the total of sold products. Sales to third parties in the local market and for

We also carried out a risk assessment to identify, apply, document, and communicate the health, safety, and environmental measures to manage risks, in order for the products to be used safely for the intended purpose. The risk assessment is carried out taking into account the destination market's demands, according to the following:

- → Domestic and Regional Market: considerations, according to the chemical product's classification, which are on their Safety Sheet.
- → European Market: through the different exposure scenarios, for their multiple uses, assessed on the Chemical Extended Safety Data Sheet (eSDS). To the above, the Chemical Safety Report (CSR) is added, presented before the ECHA (European Chemicals Agency) when registering, which should have a new version if there are changes or new needs that may emerge.
- → The United States market: taking into account the chemical's classification and the associated considerations, under the UN's GHS (Globally Harmonised System) guidelines.
- → Prop 65: In the case of delivering products to California, identified as causing cancer (example: Benzene), or with reproductive toxicity, the receiving customer is notified/warned regarding the inherent risks.

- → The United Kingdom: the UK-REACH demands are complied with.
- → urkey: the KKDIK demands are complied with.
- → Other destinations: the current legislations are fulfilled.

In the following table, the percentage of products that are subject to a risk assessment is detailed, based on the GHS category.

GHS CATEGORY SUBJECT TO A RISK ASSESSMENT	NAME OF THE PRODUCT IN QUÍMICA'S PORTFOLIO	2022²
Hazardous Product Classes 1, 2, and 3	Toluene, Methanol and Cyclohexane	40.44%
Hazardous Product Class 8	Maleic Anhydride	1.31%

<sup>2</sup> Criterion: Percentage on the total of sold products. Sales to third parties in the local market and for export were taken into account (for this calculation, the auto-consumption and YPF S.A. internal sales are not considered).

The Company also works within the framework of compliance with the current mandatory national regulations, and also adheres to complying with the international voluntary rules and standards. The main rules are detailed below:



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#### NATIONAL REGISTRATIONS AND STANDARDS

- → National Registry of Chemical Precursors, within the framework of National Law No. 23,737 "Drug Law": YPF is registered in the National Registry of Chemical Precursors with the category of Importer/Exporter Operator. Products marketed by YPF QUÍMICA that are registered with this regulatory agency are as follows: Benzene, Solvent C, Toluene, Xylenes, and Methanol.
- → Resolution 33/2016 of the INV (National Institute of Viticulture), which regulates "Products for industrial use based on ethyl alcohol or methanol," and with which the product Methanol, manufactured at the Plaza Huincul Industrial Complex, complies.
- → Argentine Food Code: The product Solvent C, marketed by YPF QUÍMICA, complies with the demanding specification of identity and purity required by this national legislation.

# INTERNATIONAL REGISTRATION AND STANDARDS

- → REACH: European Agency of Chemical Substances and Mixtures. YPF QUÍMICA has the following products registered under these standards: Methanol, Cyclohexane, PEX AP, LAB, Maleic Anhydride, Toluene, PIB feedstock (2-methylpropene and Butenes). These constitute 100% of the products marketed by YPF QUÍMICA in the European Union. The REACH Registry is managed by ECHA (European Chemicals Agency). All chemical products produced and marketed in the European territory must be registered in it. This includes chemicals produced outside the territory that enter the European Union through imports.
- → Extended Safety Data Sheets (eSDS): ECHA, subject to the quantity of chemical exported and its nature, may

require the preparation of extended Safety Data Sheets (eSDS) for products entering the European Union. By extension, it means the incorporation of a series of annexes to the usual safety data sheets where the different exposure scenarios of the chemical substance for each of its uses are assessed. To date, YPF QUÍMICA has the corresponding eSDSs prepared for the products it exports to the European Union and also to the other two markets indicated below.

#### UNITED KINGDOM (UK) MARKET

# UK REACH: Similar to the European REACH, developed by the United Kingdom after Brexit. In this case, YPF QUÍMICA has managed the pre-registration of its product Maleic Anhydride and the raw material for manufacturing Polyisobutylene.

#### TURKEYMARKET

KKDIK Registry<sup>3</sup>: This is Turkey's chemical products registry. YPF QUÍMICA has already pre-registered its Maleic Anhydride product and the raw material to manufacture Polyisobutylene.

3 Kimyasalların (Chemicals); Kayit (Registry); Degerlendirme (Assessment); Izni (Authorization); Kısıtlanması (Restriction)

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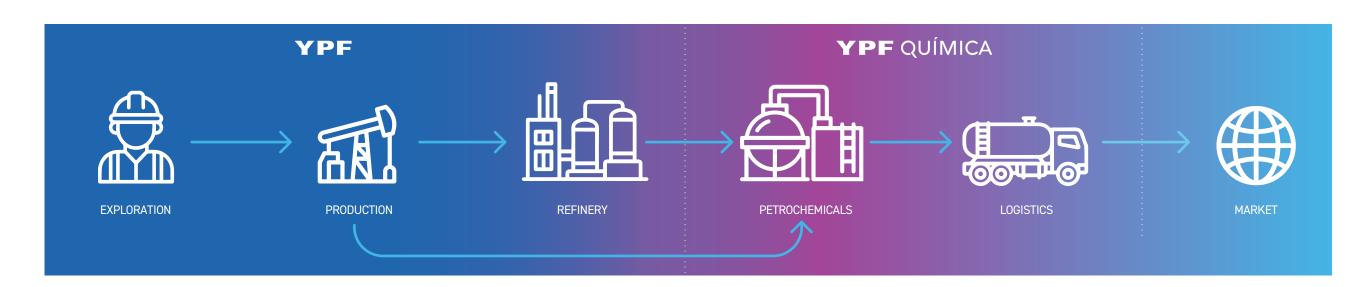
GRI: 2-1, 2-6

#### **INTEGRATED COMPANY**

We guarantee the quality and availability of products thanks to our integration with YPF's refineries and natural gas processing plants.

YPF QUÍMICA obtains the raw materials necessary for generating its products through YPF's refining complexes and the natural gas produced by the Company's Upstream. It works together with the Logistics and International Trade managements, offering transportation and distribution services for its products to international, regional and domestic customers. This integration with the rest of the Company allows YPF QUÍMICA to ensure the continuity of supply to its customers and the quality of the products provided.

The Ensenada Industrial Complex (CIE) of YPF QUÍMICA is the largest petrochemical complex in the country and it receives raw materials from La Plata Industrial Complex (CILP) on a daily basis; these are necessary for the production of different petrochemical products. These include aromatic and aliphatic solvents, basic chemicals, surfactants, polymers and maleic anhydride, the latter two being products that mainly supply the international market. In addition, the CIE generates hydrogen and high-octane value components used to produce YPF's fuels, improving their quality and performance.





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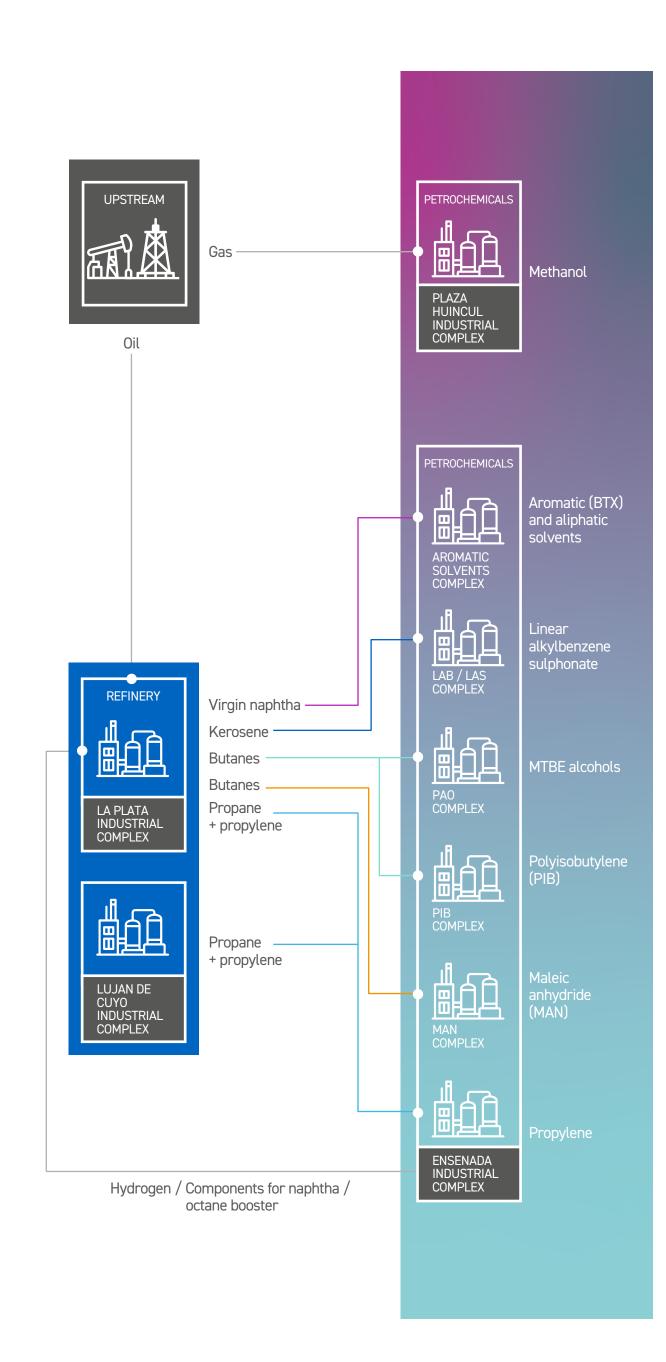
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Also, YPF QUÍMICA uses natural gas as raw material to produce methanol at the Plaza Huincul Industrial Complex (CIPH).

YPF QUÍMICA is also a leader in the marketing of propylene, an essential product for the production of plastic polymers, manufactured at the La Plata Industrial Complex (CILP) and the Luján de Cuyo Industrial Complex (CILC).

#### Petrochemical Production in Our Own Complexes

Production complexes where YPF QUÍMICA manufactures or acquires products for marketing are certified under international standards (see table). Additionally, the Chemicals Executive Management has ISO 9001 certification for business management.

El Complejo Industrial Ensenada (CIE) se encuentra certificado conforme al Programa de Cuidado Responsable del Medio Ambiente (PCRMA®), un sistema voluntario de buenas prácticas de procesos sobre seguridad e higiene, salud ocupacional y ambiente.

		ENSENADA INDUSTRIAL COMPLEX (CIE)	PLAZA HUINCUL INDUSTRIAL COMPLEX (CIPH)	LUJÁN DE CUYO INDUSTRIAL COMPLEX (CILC)	
Description  Location (city – province)  Certifications Responsible Care (PCRMA®)  ISO 9001:2015  ISO 14001:2015		It is the main petrochemical complex in Argentina. It is integrated to the largest refinery in the country, which supplies it with the main raw materials: virgin naphtha and liquefied petroleum gas. The largest volume of products marketed by YPF QUÍMICA is manufactured here.	A plant for the production of methanol from natural gas. Strategically located for the natural gas and power supply.	It produces and supplies propylene.	
Location (city – p	province)	La Plata – Buenos Aires	Plaza Huincul – Neuquén	ul – Neuquén Luján de Cuyo -Mendoza	
Certifications	•	•			
	ISO 9001:2015	•	•	•	
	ISO 14001:2015	•	•	•	
	ISO 50001:2018	•	•		
	ISO 45001:2018	•	•	•	
	ISO 14064:2018	•	•	•	



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The following table details the production volume of petrochemicals in our own complexes, and their associated products.

PRODUCTION VOLUMES BY SEGMENT (TON/YEAR) <sup>4</sup>	PRODUCTS INCLUDED IN THE CATEGORY	2022	2021	2020
Specialties	LAB/LAS, PIB, MAN	69.894	79.718	69.473
Alcohols	Methanol	280.763	324.580	167.809
Solvents and Basic Chemicals	Benzene, Toluene, Xylene blend, Ortho-xylene, Heavy Aromatics, Octane Base, Cyclohexane, Turpentine, Isoparaffin Cut, Solvent C, Solvent B, Isooctane, and Normal Pentane	536.861	503.787	517.615
Olefins	Propylene	223.436	213.859	133.648

<sup>4</sup> Net production of final products without by-products, excluding products for internal consumption (LAB for LAS production and benzene for LAB or Cyclohexane production).

#### 2.4. ECONOMIC PERFORMANCE

GRI: 2-6, 2-7, 3-3, 201-1

During 2022 and for the second consecutive year, YPF reported excellent economic, financial and operating results, managing to remain on the growth path, maintaining solid profitability and liquidity levels; and greatly reducing leverage levels, together with a significant increase in investment plans that accompanied the expansion of the activity. As a result, YPF achieved the third best EBITDA in its history, at around USD 5 billion, along with an all-time record net income of over USD 2.2 billion.

Having contributed to these results, in 2022, YPF QUÍMICA achieved an EBITDA of USD 240 million, and exceeded the budget value estimated, with a sustained growth for three consecutive years.

In the first part of 2022, in terms of demand and prices, these were favorable for YPF QUÍMICA, especially for some products. Towards mid-2022, the market dynamics changed, due to a combination of complex factors, such as the war on the European continent, inflation, cost increases, low availability and high logistic costs. Some markets were no longer supplied by

Russia and Ukraine, China began exporting to India, changing world commerce with more competitive prices, which created a decline in the rise of prices and demand.

Faced with this situation, YPF QUÍMICA assessed the best alternatives to maintain the business profitability, focusing on the development of regional markets.

The increase in the demand of octane boosters for manufacturing premium fuels drove a better positioning with the growth of sales to third parties in the domestic market, in a context of high international prices, mainly in the first six months of the year.

All this brought an invoicing of approximately USD 1.3 billion, an increase of 22% compared to 2021.

In 2021, we managed to re-establish our sales levels after the first year of the pandemic; during 2022, the usual values stayed steady, close to 1.3 million tons.

DESTIN	NATION OF PRODUCTS MA	ARKETED AND DISTRIBUTED BY YPF QUÍMICA			
Internal Sales within YPF		Consumption in the Company's industrial processes. This category is integrated mainly by octane booster products for manufacturing premium fuels.			
Sales to Third Parties in the Domestic Market		Chemical, Industrial, and Agricultural Markets in Argentina.			
Sales to Third Parties in Export Markets		Chemical, Industrial, and Agricultural Markets in Latin America, Europe, U.S.A., and Asia.			
YEAR	THE MAIN EXPORTS BY	VOLUME WERE TO:			
2020	1st, U.S.A., 2nd Brazil, 3rd Chile, 4th Uruguay, and 5th Paraguay, in a lesser proportion: Belgium, Bolivia, Canada, China, Colombia, Germany, Spain, United Kingdom, Israel, India, Italy, Mexico, Peru, Portugal, Turkey, and South Africa.				
2021	1st Brazil, 2nd Chile, 3rd U.S.A., 4th Uruguay, and 5th Paraguay, and to a lesser extent: Bolivia, Canada, China, Colombia, Spain, the United Kingdom, Italy, the Netherlands, Peru, and Turkey.				



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#### 2.5. CUSTOMER EXPERIENCE

YPF is governed by the Personal Data Protection Act (PDPA) of Argentina, and the provisions of the Ethics and Code of Conduct of the Company, which requires that all necessary measures be adopted to protect our customers portfolio's information. In addition, our Cybersecurity Regulatory Framework establishes the care, treatment, and responsibilities in this area, and we are committed to preserve the privacy of personal data.

During 2022, no claims for violation of the privacy of personal data were registered.

In YPF QUÍMICA, we place our customer at the center of our marketing strategy. We seek to strengthen long-term relationships through a timely and comprehensive response to their requirements, expectations, and offer of innovative experiences.

YPF QUÍMICA supplies more than 200 local and international customers, which can be classified as end customers, distributors or co-producers, and it operates in the domestic, regional, or global markets.

Some of the industries we supply are: paints, dyes and adhesives, thinners and solvents, lubricants, insecticides, Biodiesel, cleaning products, resins, chemical product formulas, agrochemicals, polymer materials, plastics, and vegetable oils.

# 2.5.1.INFORMATION TO CUSTOMERS ABOUT PRODUCTS

GRI: 3-3, 417-1

The company's Code of Ethics and Conduct also promotes advertisement of our products, services, and actions within a truthful, responsible and legal framework; we are committed to a transparent and non-deceptive advertising policy.

	2022			2021			2020		
REVENUES	MILLIONS OF USD	THOUSANDS OF TONS	%	MILLIONS OF USD	THOUSANDS OF TONS	%	MILLIONS OF USD	THOUSANDS OF TONS	%
Sales to Third Parties in the Domestic Market	589	619	49	545	593	46	244	407	38
Sales to Third Parties in Export Markets	133	102	8	126	176	14	85	137	13
Internal Sales within YPF	584	547	43	401	508	40	286	515	49
TOTAL SALES	1.307	1.269	100	1.072	1.278	100	615	1.059	100



YPF QUÍMICA permanently ensures an adequate handling of the chemical products manufactured and sold, through a clear and effective communication with the parties that handle them, its customer portfolio, and carriers. At the same time, the rules that regulate the sales and transport of hazardous chemical products address the aspect of systems of information and communication of risks.

2020

2021

2022



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100% of the products YPF QUÍMICA sells and uses in its processes have safety data sheets and labels that provide information on the hazards of the contents of each substance and mixture. These are prepared according to the current legislation and the Globally Harmonized System (GHS) of chemical products.

Regarding labeling, although in YPF QUÍMICA's case, more than 95% of its sales are in bulk, the remaining 5% are Polyisobutylene (PIB) and Maleic Anhydride (MAN) products, that are sold in drums and bags, respectively. In the case of PIB, this is an innocuous product. The Maleic Anhydride containers have labels indicating the product's hazards to physical health and to the environment, following GHS standards.

YPF QUÍMICA has the following documentation prepared by experts on the subject, such as CIQUIME (Emergency Chemical Information Center):

- → Safety Data Sheets (SDS) aligned with the GHS (Globally Harmonizing System) of the UN, available on its website in two languages.
- → Extended Safety Data Sheets (eSDS), aligned with the Classification Labeling and Packaging (CLP) rules, in the case of exporting products to the Eurozone.
- → Labels that are manufactured according to the regulations mentioned previously.
- → Emergency Interventions Sheets (EIS) aligned with the Mercosur demands.

As to the carriers, YPF QUÍMICA additionally gives them Emergency Interventions Sheets (EIS) of the product. The requirements for its content are shown below:

#### CONTENT OF THE EMERGENCY INTERVENTION SHEET (EIS)

This document must concisely show:

- Information on the nature of the hazard presented by the hazardous goods transported, as well as emergency measures.
- The applicable provisions in case a person comes into contact with the materials being carried, or the merchandise that could detach from them.
- The measures that must be taken in case of fire and, particularly, the means that must not be used in putting out a fire.
- The measures that must be taken in case of breakage or deterioration of packaging or cisterns, or in case of drainage or leakage of the hazardous merchandise carried.
- If a vehicle cannot continue on the road, the necessary measures to carry out a transfer of the load or, if this were the case, the restrictions in handling it.
- Emergency telephones for the firefighting force, police force, civil defense, environment and, if this were the case, the competent agencies for Classes 1 and 7, across the itinerary.

These instructions will be provided by the consignor of the shipment according to the information provided by the manufacturer or importer of the product being carried. At the same time, they must be written in the official languages of the countries of origin, transit and destination..

#### 2.5.2. CUSTOMER SATISFACTION

GRI: 3-3

YPF QUÍMICA has a team of qualified commercial representatives, with market experience, and knowledge of the technical specifications of the products and their respective applications. The business representative is the link between YPF QUÍMICA and its customers.

It also has a Technical Assistance Service available to resolve queries regarding the quality of a product, its uses and adequate handling. Customers can access the information through an exclusive e-mail link: asistencia.tecnica.quimica@ypf.com, or directly through the website.

Furthermore, the satisfaction level with the product and our service, as well as a general opinion on the business, are assessed through a Customers' Satisfaction Survey, which is carried out every two years.

Its purpose is to obtain information on the current perception and rating of YPF QUÍMICA's customers and, retrospectively, throughout the historical trend. For the 2021 measurement, the entire active customer portfolio (186) was invited to participate, and a response was obtained from 161 customers (60% from the local market and 40% from abroad).

The satisfaction index with the product, the provision of services and the general opinion have a range of 1 to 5, in which 1 is the minimum degree of satisfaction and 5 the maximum, given that the surveys are biannual.







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FOR MORE INFORMATION, REFER TO THE REPORT ON THE WEBSITE

- → YPF QUÍMICA shows a positive performance with practically 8 of every 10 customers stating they were satisfied with the service.
- → There is a consistent positive opinion on YPF QUÍMICA in the different surveys made since 2007.
- → The product maintains, in both measurements (2019 and 2021), a high level of value of its different attributes (general assessment of the product, quality, technical specifications and delivery of the certificate of analysis).
- → YPF QUÍMICA is clearly perceived as an international company and, for 6 customers out of 10, it adapted to the pandemic situation, offering a more flexible service (answer to a specific question).
- → High level of use and assessment of safety sheets and technical specifications and applications, among people who know the services offered by the website; however, the level of knowledge of the web is 21%.

#### 2.5.3. ATTENTION TO CUSTOMER COMPLAINTS

Each claim or complaint made by each YPF QUÍMICA customer is entered into the management system as a Quality Notice and, eventually, according to its relevance or reiteration, they are assigned a Non-Conformity treatment. Based on the reason for the claim, a YPF Resolution Group is defined and

will be responsible for its treatment and investigation, and the business representative who handles the account is also informed.

Once the corresponding investigation has been carried out, an official reply is provided, in which the actions that have been taken are included. At the same time, the resolution is registered and the claim in the system is closed.

During 2021, 100% of the claims were handled and closed. In 2022, 85% of the claims were handled and closed during that period; the remaining 15% were closed in January, 2023.

Some complaints are: delay in product delivery, packaging broken, missing documentation, product out of specification, or out of ensured quality.

CLAIMS	2022	2021	2020
Reported quality warnings and uploaded to the system	31	21	37
Percentage of complaints addressed	100%	100%	100%

To measure the performance of complaint management of the customer portfolio, objectives and associated indicators are available.

OBJECTIVES AND INDICATORS	OBJECTIVE	2022	2021	2020
Annual average number of days of response to our customer portfolio	Less than 25 days	23 días	20 días	24 días
Tons of product claimed/ Tons of product sold	Less than 1%	0,28%	0,08%	0,28%
Number of orders claimed/ Number of orders issued	Less than 1%	0,20%	0,13%	0,33%

#### 2.5.4. TRAINING FOR CUSTOMERS

Among the actions deployed to provide quality service to each customer, during 2022, training activities and participation in congresses and conferences were included, such as:

- → Virtual seminar regarding "Sustainability of the Chemical and Petrochemical Industry", organized by the Chamber of the Chemical and Petrochemical Industry (CIQyP), within the framework of the Responsible Care of the Environment Program (PCRMA®).
- → 10th edition of the REPORT 2022 Congress and Exhibition, an event organized by ATIPAT, the Ibero-American Technological Association of Paints, Adhesives and Dyes.
- → Participation in the specialized magazine REC #50
- → ABRAFATI Congress, the most important painting event in Latin America.
- → VII Petrochemical Conference organized by the Argentine Petrochemical Institute.
- → 42nd edition of APLA, the most relevant meeting of the chemical and petrochemical industry in Latin America.



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The nature of the activities we carry out as an energy company represents a central challenge for YPF, and all its business units, in terms of climate action. The Company assumes it as one of its sustainability priorities and is committed to promoting a fair and inclusive energy transition that promotes the incorporation of innovative solutions; considering starting points, capabilities, availability of resources, and development needs of the country. Thus, not only the risks linked to climate change are assessed, but also the opportunities that new trends open for each business segment.

Climate action impacts both the physical risks of our operations and those related to the decarbonization of the economy, new technologies, new regulations at domestic and international levels, demands of the customer portfolio, and expectations of the people who invest in our Company. The resilience of our businesses in the medium- and long-term depends, to a large extent, on our being able to intelligently adapt them to the various scenarios opened up by this global challenge.

The climate change roadmap that YPF has, and which includes YPF QUÍMICA with its features, has short- and medium-term objectives related to both the decarbonization of the oil and gas business and the promotion of renewable energies and other energy solutions, and the proposal of a new energy strategy in line with the compliance with the objectives of the Paris Agreement and the Nationally Determined Contributions (NDC) to achieve carbon neutrality by 2050, as well as its role as a booster of the Argentine and regional economy.

These goals are broken down into annual intermediate objectives that are part of the 2023-2027 business plan, monitored periodically, which are added to the performance assessments of the company's employees, including executive VPs and the CEO, and impact the variable compensation bonus. The commitment is to invest in the decarbonization of current energy, as well as in the future energy system.

#### 3.1. GHG EMISSIONS

GRI: 3-3, 305-1, 305-2, 305-5, 305-6 SASB RT-CH-110a.1, SASB RT-CH-120a.2

YPF QUÍMICA represents around 7% of YPF's direct emissions. The reduction opportunities of YPF QUÍMICA are assessed within the decarbonization cell of the Downstream VP. This interdisciplinary team aims to develop the VP decarbonization roadmap and the preparation of the abatement curve that allows achieving a Net Zero potential for GHG emissions, in scope 1 and 2, by 2050.

In order to consolidate YPF's commitment to reducing emissions and efficient use of resources, the Company's investment and divestment rule establishes that every project will have to include a sensitivity analysis against the environmental variables associated with strategic environmental objectives. The company set  $50\text{USD/tCO}_2$ e for the sensitivity assessment of critical projects.

The origin of the sources of GHG emissions at YPF Química are:

- → At CIPH, the main activities that generate direct GHG emissions are concentrated in the methanol converter and the auxiliary furnace of the Plant. These include emissions with utilization, related to the natural gas consumed to fuel the two aforementioned equipments, as well as CO2e emissions linked to flare venting. The first depend on the load at the Plant and the days it is in service. The second are fundamentally related to stoppages and the plant's start-up. Regarding the scope, the electric equipment is not identified as of significant use in this complex.
- → At CIE, the main activities that generate direct GHG emissions refer to the combustion of gas or liquids in process furnaces, boilers, and flares, which generate scope 1 emissions (direct emissions from fuel burning) and scope 2 emissions (from electrical power, and steam purchased to supply internal consumption).

Given that the Downstream VP represents 41% of YPF's scope 1 emissions, the VP has a great mid-term challenge linked to the incorporation of the new hydrotreatment plants in the CILP and the CILC, which will increase the scope 1 and 2 GHG emissions. The objective for 2026 is to maintain the same level of GHG emissions intensity that we had in 2017. This means not exceeding 0.292 tons of  $CO_2e/Tn$  of processed crude oil.

During 2022, a technical study of the Greenhouse Gas inventory of the Methanol and PIB production process (limited carbon footprint process) was carried out, which resulted in the following:

- → **Methanol**: 0.59 tCo<sub>2</sub> eq/tons of methanol produced (Scope 1 and 2)
- → **PIB (Polyisobutylene):** 1.31 tCO<sub>2</sub>eq/tons of PIB produced (Scope 1 and 2)

DOWNSTREAM VP GOALS	2023 GOAL	2026 GOAL
Emission intensity tn CO <sub>2</sub> (Scope 1) <sup>1</sup>	0.288 tn CO <sub>2</sub> /tn of processed crude oil	∠

<sup>1</sup> The indicator is the average of the emissions intensity of the following production complexes: CILC, CIPH, CILP, measured as tons of  $CO_2$ eq divided by tons of crude oil processed plus tons of  $CO_2$ eq generated by logistics, divided by tons of fuel transported.

Net emissions will increase as a result of the start-up of new plants to achieve the new low-sulfur fuel specifications



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2023 GOALS FOR INDUSTRIAL COMPLEXES	
CILP emission intensity (includes CIE)	0.301 tn CO <sub>2</sub> /tn of processed crude oil
CIPH emission intensity	0.292 tn CO <sub>2</sub> /Tn of raw material processed

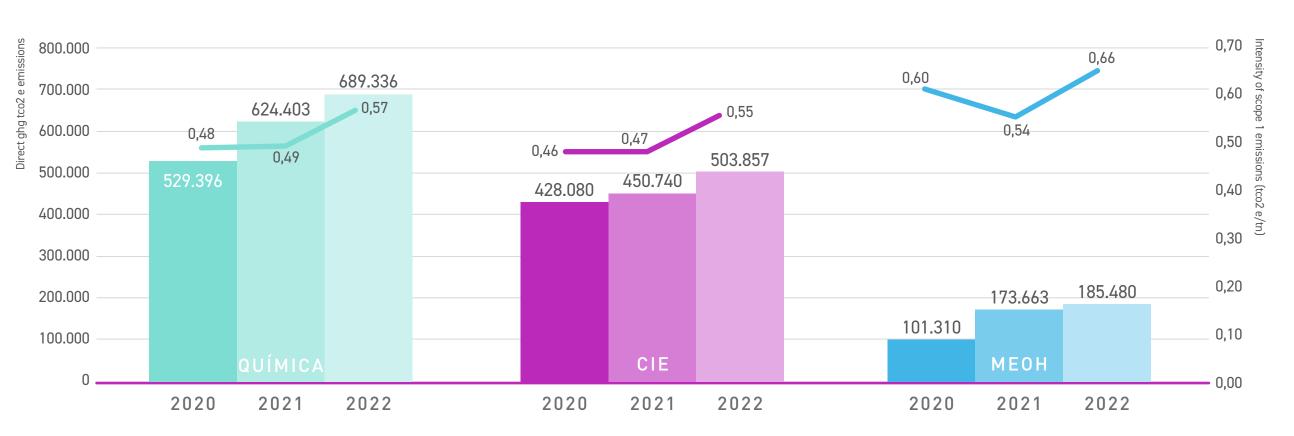
YPF Química, as part of the Downstream VP, cooperates with GHG emissions reduction strategies, participating in the following actions:

- → The emissions inventories of the YPF QUÍMICA complexes are prepared under the criteria of the ISO 14064 standard, and verified annually by external auditing companies.
- → Search for greater efficiencies in energy consumption at CIPH
  - Begin work on visualization of gas reuse projects at the methanol plant and opportunities for improve ment in the plant's emissions measurement system.
  - Increase the proportion of bought renewable energy.
- → Minimize flared stack gas.
- → Validate the decarbonization plan on Scope 1 and 2 GHG emissions. The developed plan will be used as a decision-making tool for the strategic business plan.

The increase in scope 1 emissions is due to the fact that, starting in 2022, the CLAB plant located within CIE began to be considered. The latter represented 65,870 tCO2eq in 2022.

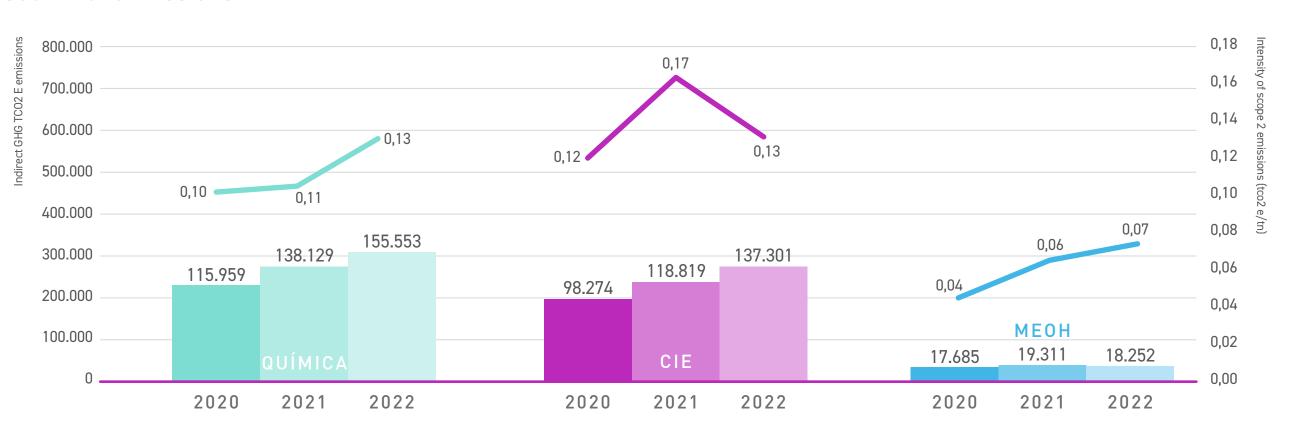
If the CLAB unit had not been considered, 2022 emissions remain at the same values as in 2021 for the CIE.

#### SCOPE 1 GHG EMISSIONS<sup>2</sup>



2 The reported values of GHG emissions from the methanol unit for the year 2021 were updated. The reported data did not consider the consumption of reformed gas. The total methanol emissions for the years 2021 and 2022 were validated by an IRAM audit under the ISO 14.064 standard. The previous value for the year 2021 was 119,459 tCO<sub>2</sub>eq, the value updated and verified by IRAM is 173,663 tCO<sub>2</sub>eq.

#### SCOPE 2 GHG EMISSIONS<sup>3</sup>



3 The CIE scope 2 GHG emissions values for the years 2020 and 2021 were updated due to an error detected in the units used in the emission factor. For the year 2020, it meant a reduction of 17.6% and, for 2021, a 33.3% reduction on the values published in the 2021 sustainability report. For 2021, the value reported was 158,385 tCO<sub>2</sub>e and for 2020 115,558 tCO<sub>2</sub>e.



#### 3.2. ENERGY MANAGEMENT

GRI: 3-3, 302-1, 302-3 SASB RT-CH-130a.1

YPF QUÍMICA's energy management is integrated with the strategic axis of Sustainability "Climate Action". Within this framework, in 2017, YPF carried out an energy assessment of the production processes in the Company's three main segments (Upstream, Downstream, and Gas and Energy); which works as a baseline and allowed the identification of places where efficiency could be increased. As part of those efforts, an energy management system based on the ISO 50001 standard was implemented and a YPF energy efficiency and emissions management committee was formed, which is composed of collaborators from all businesses and articulates and coordinates the different actions that are developed in this area.

There is a Plan of Energy Reduction Objectives and Actions (POARE) for Downstream, where each year the actions or milestones are defined to achieve the mid-term objectives, in terms of energy efficiency. The POARE is feedback within the initiatives that arise from the production processes and objectives of YPF; it is agreed upon with all the sectors involved and is translated into specific objectives for those responsible. Its follow-up is done monthly and the degree of progress of each action, as well as the accumulated progress percentage, are updated. This plan is made up by 6 strategic lines, where different actions are grouped:

- 1. **Savings and monitoring objectives:** Actions that imply savings that can be quantified; Definition and monitoring of performance indicators.
- 2. **Optimization and monitoring of energy perfor- mance:** Equipment inspection and availability, monitoring of exchanger trains, optimization studies.
- 3. **Good Practices:** Actions shared with other facilities, revi-

sion of consumption variables, lighting improvements.

- 4. **Strategic mid-term actions:** Actions that allow projects/ works to move forward, defined in the mid-/long-term plan, or with the definition of projects (studies).
- 5. **Training and communication:** Organizing and teaching courses, both technical and of orientation; Preparing reports; Promotion actions.
- 6. ISO 50001: Actions related to the ISO 50001 standard's implementation/certification.

In the CIE and CIPH energy matrix, 98% corresponds to using fossil fuels (natural gas, fuel gas, residual products) in the process ovens and furnaces. The 2% left is the electric power consumption in compressor and pump motors.

During the period of this Report, we achieved ISO 50001:2018 Energy Management System certification at the CIPH (including Methanol).

The main actions in the CIPH developed during the 2021-2022 period are based on optimizing consumption and on the effective use of steam through operative control and periodic inspections of ovens and furnaces.

#### **2022 Achievements:**

- → Optimization of the steam system integrating Refinery with Chemistry.
- → The CIPH EMS certification under ISO 50001:2018 standard.
- → Energy performance indicator board.



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The renewable energy contracts supply several YPF points, and the distribution of the MW h generated is carried out based on the consumption of each site.

During the year 2022, with respect to the CIE's total electrical energy consumption, the percentage coming from renewable energy was 23%. However, regarding the purchase of power, the percentage of renewable energy reached 31.5%. The legislation (Law 27,191: Promotion of the use of renewable sources) establishes 16% as mandatory for the period 2021-2022, which greatly exceeds what is legally required.

The total energy consumption in the 2022 period, in the CIPH complex, was lower than that recorded in 2021, due to the scheduled plant shutdown that took place in the period of October to December, 2022. Regarding energy intensity (GJ/tn of Methanol), we saw an increase compared to 2021. After the post-stop start-up of the unit for its scheduled maintenance, a notable improvement was seen in the energy performance of the unit that prevails to this day.

In December 2021, Resolution No. 34,774 of the Ministry of Economy, Undersecretariat of Electric Power, came into force, which contemplates the change of category from GENERATOR to SELF-GENERATOR to the unit comprised of La Plata Cogeneración I (LPCI) and the facilities of the La Plata Refinery. This generates a redistribution of the renewable energy purchase contracts in force for YPF.

The Ensenada petrochemical complex has contracts for the purchase of electrical power with YPF LUZ: Cañadón León, Los Teros and Manantiales Behr (renewable), and Loma Campana<sup>4</sup> (natural gas). During 2021, Loma Campana was out of service on several occasions, and this caused an increase in renewables due to contract distribution that year. This impact was reflected in the indicators for 2022.

4 Loma Campana is an Electric Power generator of YPF LUZ, with whom we have a supply contract

#### **ENERGY**



YPF's energy demand today is covered by its self-generation and the purchase of electrical power. To increase the percentage of renewable energy, it should take its self-generators out of service (which in turn supply the national electric power market); this would limit the possibility of continuing to replace electrical power from non-renewable sources with energy from renewable sources. Due to the aforementioned, we do not expect to increase the consumption of renewable energy in the coming years.

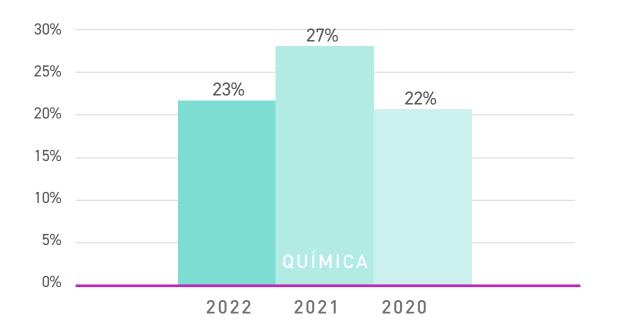
#### **2023 Goal**

→ Steam ring optimization study integrating CILP.

#### Mid-/Long-Term Challenges

- → Optimize the Methanol oven unit.
- → Integration after the Magnaforming revamp.
- $\rightarrow$  Adapt the CIE furnace park.
- $\rightarrow$  Study of CO2 capture from residual gas.

#### % RENEWABLE POWER / % TOTAL POWER





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# 4.1. POLICIES AND MANAGEMENT SYSTEM

All our operations are developed within the framework of laws and applicable environmental rules in force in these matters. Consequently, we avoid, minimize and mitigate the environmental risks inherent to the activity. Our commitment translates, as well, to policies that seek to ensure efficiency in the use of resources, reducing emissions, adequate waste management, and care for the ecosystems in all the value chain.

Our Operational Excellence Model expresses responsibility for caring for the environment and ensuring the reliability and integrity of our assets and our operations. A series of additional internal rules establishes minimum criteria for action and complement what is required by the regulatory framework. YPF has internal rules in the matter of emissions management, waste, use of water and preserving the biodiversity that apply to YPF QUÍMICA. Additionally, the Operational Excellence management system incorporates the environmental dimension with the identification of significant risks and impacts, as well as their control throughout the value chain.

The main environmental parameters defined by YPF are registered and subject to constant monitoring. According to what is established in the corporate procedure in this subject matter, each business reports these data quarterly through a specific application (SPHERA). The calculation methodologies are established in the "Guide to Environmental Parameters", which is updated periodically. Analyzing this information allows a simultaneous assessment of the situation and the environmental performance evolution, as well as having timely information for the internal or external interested parties.

Once a year, these environmental parameters are verified by an external consultant company, according to what is set forth in the "Informe de Aseguramiento Limitado" (Limited Insurance Report) incorporated into the period's Sustainability Report.

The Ensenada YPF QUÍMICA industrial Complexes also adheres to the Responsible Environmental Care Program®, which is certified through an external audit of the complex's facilities. This program is of voluntary compliance in the chemical industry and promotes continuous improvement in the areas of safety, occupational health, and environment, and its incorporation into the internal policies of companies; it promotes the responsible management of chemical products in all stages of use, as well as training of personnel. It is a management system that presents aspects of the ISO 14001, ISO 45001 standards, as well as some aspects of the ISO 9001 standard.

At our last audit, the following topics were highlighted:

- → Monitoring of the ISMA (abbreviation for "Argentine Market sentiment Index") objectives and indicators.
- → E-Leaning training platform.
- $\rightarrow$  Brigade training and attention plans during emergencies.
- → Medical service activities regarding health care.
- → Induction talk for drivers who begin to load at the Company, with the inclusion of PCRMA® concepts.

#### **Audits and certifications**

100% of YPF QUÍMICA's industrial complexes are certified by ISO 14001, ISO 14064, and ISO 50001 standards.

In the context of these certifications, they receive yearly audits and compliance checks. Also, facilities are regularly audited by the corresponding control organisms.

During 2022, a technical study of the Greenhouse Gas invento-

ry of the Methanol and PIB production process (limited carbon footprint process) was carried out.

#### 4.2. AIR QUALITY

GRI: 3-3, 305-7 SASB RT-CH-120a.1

The management of the non-GHG atmospheric emissions is focused on minimization, and applying a treatment adapted to local regulations. For total emissions of sulfur dioxide ( $\mathrm{SO}_2$ ), nitrogen oxide (NOX), non-metallic volatile organic complexes (NMVOCs), carbon monoxide (CO), and non-GHG particulate matter (PM10), we identified the main emission sources, as well as the different emissions estimation methodologies of the operations carried out by YPF. The management of the non-GHG atmospheric emissions is focused on minimization, and applying a treatment adapted to local regulations.

In combustion, all of the carbon contained in the fuel is oxidized to  $CO_2$ , but because the combustion process is not complete and because the fuel may contain other elements in its composition, CO, NOX, SOX and particles can be emitted.

These emissions are directly related to the level of activity of the complexes.

In the case of the methanol unit, an increase in its non-GHG atmospheric emissions was recorded in 2022, compared to 2021, due to the plant shutdown scheduled in the period from October to December, 2022; the stoppages and start-ups of the units increase gas levels due to inefficiencies in the processes.

In the case of the CIE, during 2022, the emissions of volatile organic complexes associated with the venting of storage tanks were included, with an impact of 271 tons, a value not included in previous years. In the case of monoxide, the increase is explained by greater activity of the maleic plant scrubbers.



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With respect to SO2, the fuel portfolio in boiler loading continues to be optimized, which is why fewer emissions of this gas are generated in the CIE and in the CIPH only  $SO_2$  resulting from the sulfur concentration of natural gas is generated (1%).

#### 4.3. WATER RESOURCES

GRI: 3-3, 303-1, 303-2, 303-3, 303-4, 303-5 SASB RT-CH-140a.1, SASB RT-CH-140a.3

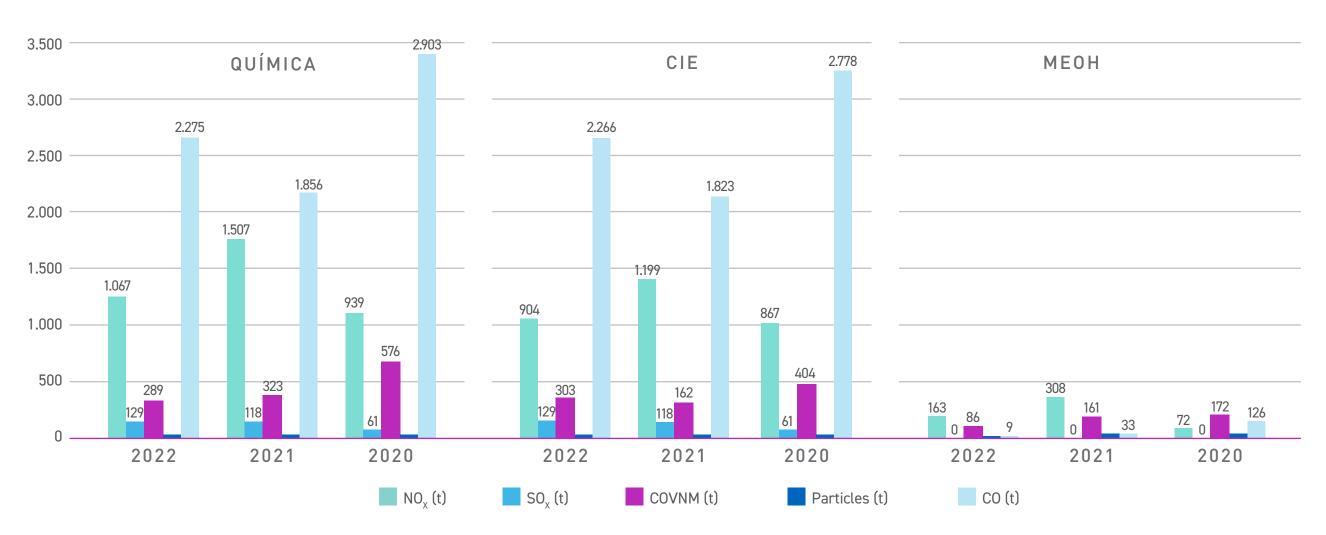
The YPF 2022-2026 Strategic Plan includes objectives regarding reducing water uptake, consumption optimization, and prioritization in water reuse. Management of this resource is very relevant each year. In YPF QUÍMICA, we are working to comply with these goals.

Our water management is based on:

- → Monitoring the indicators of Efficient Use and Sustainability of Water¹.
- → The Water Management Plan of the business.
- → Establishing cost of water.

The Downstream VP has the goal of reducing the intensity of freshwater uptake by 2026, in line with YPF's objectives, measured as m3 of water captured/m3 of processed crude oil. This objective is intended for a reduction of 6%, considering 2019 as the base year. To achieve this, we continue to develop actions that allow us to detect and implement projects that ensure not only the reduction, but also the ability to exceed this value and contribute in a sustained way to the efficiency of the use of water resources.

#### **NON-GHG ATMOSPHERIC EMISSIONS**



DOWNSTREAM VP GOALS	2026 <sup>2</sup>
Intensity of water uptake	Reduction of 6% compared to 2019

2 The goal is for the entire Downstream vice-presidency, which includes petrochemical complexes

To the objective of reducing uptake intensity, we add two additional ones: one linked to the intensity of freshwater consumption and another linked to the reuse of the collected water. It is our aspiration to be able to obtain base values that allow us to have mid-term objectives from 2024 onwards.

Water is considered a priority resource, therefore, we work in each plant to optimize its use. We improved processes that use water, effluent treatments, and we have a maintenance and integrity plan to avoid breaks and losses in our plumbing infrastructure.

YPF uses the Aqueduct tool to establish whether the uptake and discharge points are in water-stressed areas. In the case of our complexes, none are located in areas with these characteristics; however, the Province of Neuquén is in a water emergency, a con-

dition that makes our responsible management of this resource even more important for the Methanol Plant.

At YPF QUÍMICA, the highest proportion of water used is for cooling the different processes and to generate steam. In the methanol production process, water is a raw material along with natural gas, and in the production process of linear alkylbenzene sulfonate (LAS), it is injected in the last stage of the process to stop the reaction in the stabilization section of the product. The industrial complexes belong to the facilities with the highest volumes captured by the Company.

<sup>1</sup> It refers to the reduction of freshwater uptake, reduction of consumption, and increase in water reuse



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#### 2023 Goal

→ Program to survey critical points of the water cycle, instruments, and equipment to determine future needs that provide reliability to the measurement.

#### Mid-/Long-Term Challenges

→ Consolidate the freshwater uptake reduction indicator and establish metrics for monitoring and management.

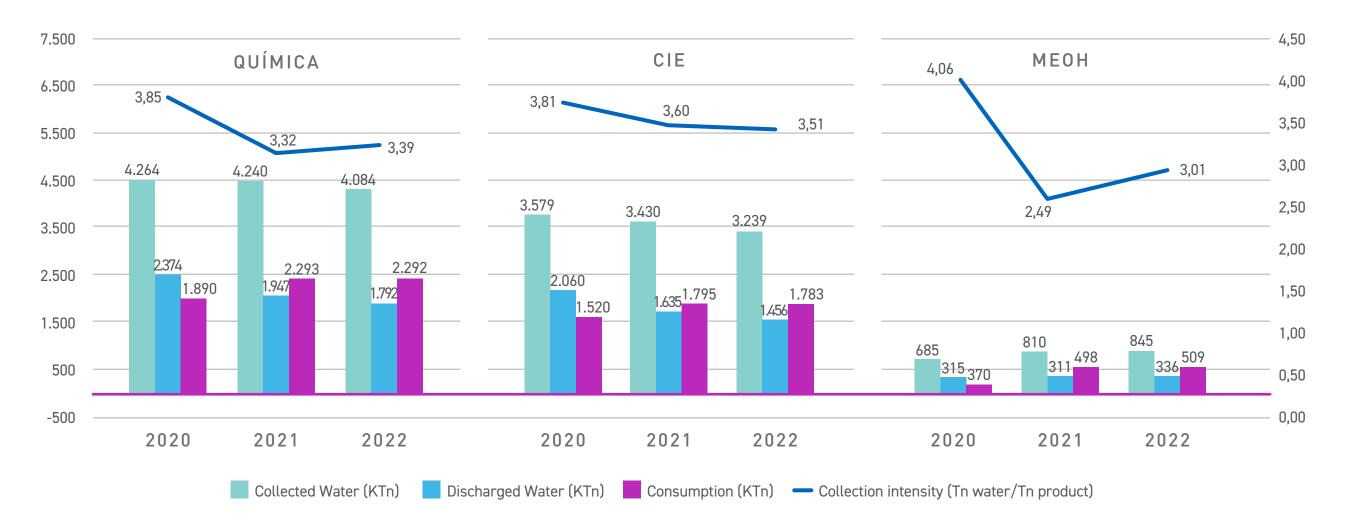
#### **Water valorization**

Through the Water Risk Monetizer tool, internal water prices are established, which must be used in the sensitivity analyses of all the critical investment projects, assessed by the Investments Committee. This internal price contemplates, among other things, the analysis of regulatory scenarios and rate changes that help us strengthen its management.

During 2022, surveys were carried out in order to determine the internal price of m3, we developed activities to continue with the process of estimating the internal price of water. We worked together with all internal benchmarks, due to the impact that this value has at the company level. Joint and integrated work was carried out to define the cost of each component, expressed in US dollars per cubic meter of water (USD/m3), arriving at a single total cost. For the estimation, the following components were taken into account:

- → Fee forwater use
- → Energy consumed (pumping equipment and delivery to processes)
- → Utility water provision
- → Chemical supplies/maintenance in uptake water treatment plants

#### **WATER MANAGEMENT**



- → Effluent treatment
- → Plant operation by third parties
- → Effluent dumping rate

The costs included in the calculations were provided by the businesses. In cases where data was not available, the analogue from another complex was taken. Values corresponding to current service contracts were also obtained from internal systems, such as SAP.

For the assessment of the cost analysis, the calculations were made based on the volume of water entering measured at each facility.

The intensity of water consumption at YPF QUÍMICA increased by 6% compared to 2021. This year-on-year increase has its origin in the use of water for washing equipment due to the scheduled shutdown of the Methanol unit.

#### **Ensenada Industrial Complex**

La Plata Port water plant provides water to the La Plata Refinery, Química, and the Industrial Lubricants and Specialties Complex. The external uptake of water is processed to obtain demineralized water for furnaces and steam generation, and filtered wastewater for the cooling circuits and service water. Only the first two are used for Química, and the local company ABSA (Aguas Bonaerenses S.A.) supplies with service water from their mains.

The discharged water is monitored twice a day in order to comply with what is established in the Resolution 336/03 and the Complementary Resolution 335/08 of the Water Authorities of the province of Buenos Aires. All effluent treatment systems are set up to comply with said rules. The water is discharged into Canal Oeste, which flows into Río Santiago, and in turn, this flows into the Río de La Plata. Canal Oeste was built to carry out maneuvers in the La Plata port and currently is the recipient of the Refinery's and Química's effluents. There is a contract dedicated exclusively to the inspection of discharges and, in the event that a spill could oc-



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cur, the channel has barriers to contain and vacuum any product.

As part of the La Plata Industrial Complex, the CIE has a comprehensive reconversion plan for the effluent system. Currently, work is being carried out in a cell modality to optimize results and define the scope of the work, with the objective of reducing discharges and continue to improve the quality of the effluents.

#### Plaza Huincul Industrial Complex

The water used is collected from surface sources; in this case, from the Neuquén river, and is supplied by a public organization, EPAS (Provincial Water and Services Entity), as well as a smaller percentage from the Neuquén River Plant. Water is used for Methanol production as raw material and for auxiliary services, such as furnaces and the cooling tower. The water that cannot be reused is treated and discharged into a watercourse located approximately 250 meters from the CIPH facilities.

from our own collection and treatment plant there are transfers of water to third parties. These transfers respond to YPF's agreements with other companies, and a fee is charged for

transferring this water. The total amount transferred during 2022 was 55,135 m3 (25,963 m3 Geopark, Oldelval and Oil Stone, and 29,172 m3 Upstream VP). For the calculation, we consider the Río Neuquén and EPAS water plants.

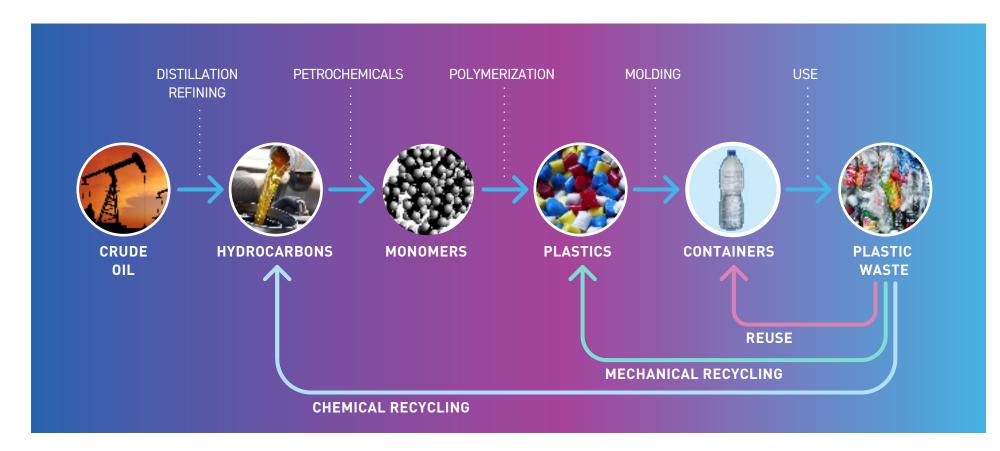
Regarding discharges, the place of discharge is a water course where several types of industrial effluents are discharged from the town. The industrial wastewater is carried out in a controlled way and monitored 24 hours a day. The water course ends and disappears after more than 50 km along several points to the north-east of the source. The quality, control, and monitoring of discharges are defined by the application authority, in accordance with Provision 371/15 established by the Department of Water Resources of the Province of Neuquén. At YPF QUÍMICA, there is an exclusive unit for the treatment of demineralized water for the process, and the discharged water as a result of this demineralization is neutralized for its subsequent dumping.

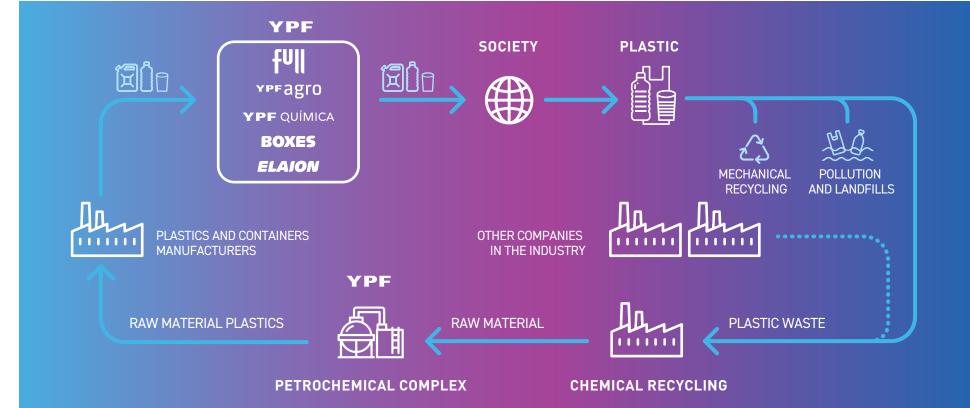
Acknowledged as a human right, access to fresh water is essential for the life and wellbeing of humans. The quantity of extracted water and consumed by an organization and the quality of its discharges can have an impact on ecosystems and people. We work to optimize its use, improving the processes that use it.

#### 4.4. CIRCULARITY

Within the Company's sustainability priorities, the operational excellence model plays a fundamental role in shaping the Company's culture. It is within this environment in which sustainable production activities are promoted, focusing on circular economy activities.

In 2019, YPF launched the "Economía Circular" (Circular Economy) project, to boost a culture based on this model inspired on nature's cyclical character within the Company. The initiative seeks opportunities and risks inherent to the goods and services value chain, starting from its design to the end of its







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life cycle, with measures such as setting up an inventory of the current circular actions.

### Chemical plastic recycling project

Chemical recycling provides added value, and complements the current mechanical activities of plastic recycling that exist in the industrial sector, and allows replacing raw material at the source.

The new recycling technologies, such as chemical recycling, would take yield to the next level and accelerate the circular economy of post-consumption plastic waste, especially those that possess certain complexity, for mechanical recycling, such as multilayer plastics, flexible containers, plastics contaminated in different ways, etc.

The chemical recycling process uses high temperatures to convert plastic waste into a liquid fuel product, which can be used as an alternative fuel for low-complexity motors; for example, to power electric generators. This fuel can also continue to be chemically transformed in a refinery or petrochemical complex and, therefore, high-quality fuels can be obtained, chemicals such as tensioactives or polymers, or products that return to the plastics value chain, and so, closing the circular economy circuit (Plastic to Plastic).

For these projects, YPF QUÍMICA foresees the use of plastic waste generated during the development of the activities of the different YPF businesses and, in addition, plastic waste coming from other parties in the related chemical and petrochemical industry, such as customers, supplier companies, competitors, etc. Its objective is to achieve a self-neutral plastic footprint and cooperate with its reduction in the Argentine industry.

During 2022, we continue working on the CYQLO® project, which involves the installation of a small-scale unit that processes between 500 and 700 tons per year of post-consumption plastics, with an estimated start-up date in the last quarter

of 2023. This first step will generate a learning curve, allowing us to upscale the process to an industrial level.

# 4.5. WASTE AND SPILL PREVENTION AND CONTROL

GRI: 3-3, 306-1, 306-2, 306-3, 306-4, 306-5 SASB RT-CH-150a.1

In YPF QUÍMICA, we are committed to minimize generating waste in our operations. Innovation is part of our management, as does the need for potential reuse and recycling actions of materials. Every year, we move forward on initiatives that comply with the Company's challenge of increasing the waste valorization and circular economy actions.

YPF has an ambitious 2022-2026 Strategic Plan, with the objective of substantially increasing the waste reuse + valorization percentages (based on 2017-2019 average baseline), increasing the valorization rate of Hazardous Waste + Non-Hazardous Waste. The Downstream VP carries out actions that contribute

to reducing the mid-term generation and valorization of waste, guided by the 2026 objective of achieving 25% of reuse/valorization of waste considering total generation.

In the case of our operations of YPF QUÍMICA, the waste levels are affected directly by the activity level of the productive units, as well as the plant stoppage situations, in which a large amount of waste is generated. Our main hazardous waste is: mud from effluent pools, caustic sodas from the olefins and catalysts process.

The Complexes generate different waste. The Ensenada Industrial Complex produces 82% of the total generated, and all hazardous waste is sent to be eliminated by a third party.

The hazardous waste is treated by companies that are authorized by the provincial authorities. Through our management system, which includes on-site audits, we control that the supplier company complies with all requirements, so that waste is transported, treated, and eliminated according to legal requirements.

### **WASTE MANAGEMENT**





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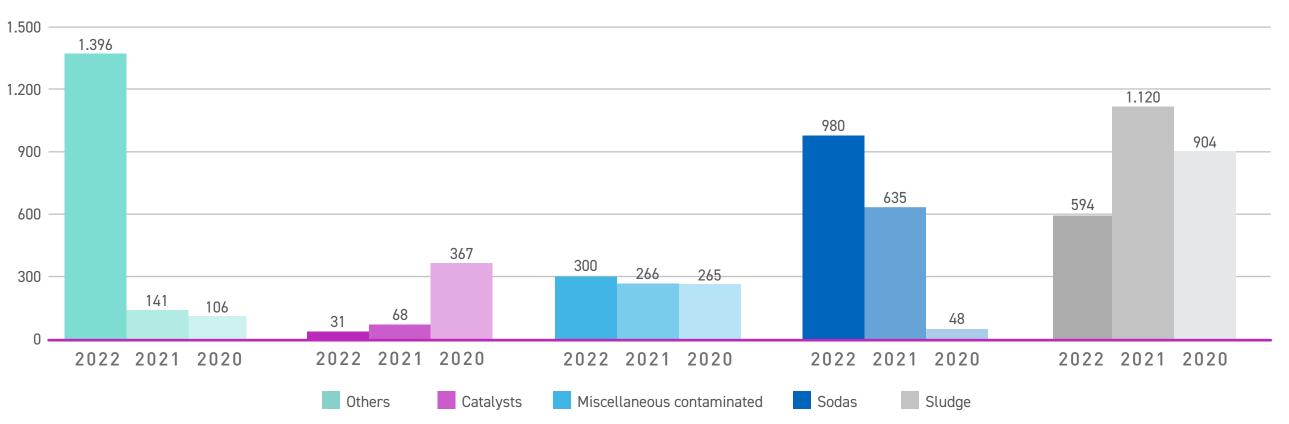
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### HAZARDOUS WASTE BY TYPE (TN/YEAR)



In YPF QUÍMICA, we have projects related to waste reuse and valorization. The most relevant projects we are developing are:

- → Hazardous waste valorization: Reuse and valorization of spent catalysts with precious (CIE and CIPH) and common metals, through chemical processes carried out by authorized supplier companies.
- → The largest generation of hazardous waste in 2022 is due to CIE caustic soda, according to what is detailed when discussing CIE in the following paragraphs.

### Ensenada Industrial Complex (CIE)

During 2022, at YPF Química, the largest generation of waste classified as hazardous was caustic soda, due to the fact that during that year the Olefins Utilization Plant (PAO) was out of service for unscheduled maintenance for some months; this caused the remaining soda treated internally in the Plant to be sent for external treatment.

Secondly, the waste called "Other hazardous" is the one that was generated the most, which includes to a greater extent contaminated solids (overalls, gloves, materials contaminated

with HC), and waste from the insulation of facilities and equipment. Said waste was generated in large volume during the scheduled shutdown of the Aromatics plant and the unscheduled shutdown of the Olefins Utilization Plant (PAO).

In the case of urban solid waste, we work with a management system to have correct segregation on site and ensure its recovery and recycling through authorized companies.

Through an agreement with Tenaris, we recycle ferrous waste and convert it into raw material, where the scrap is melted in blast furnaces to generate seamless pipes that are used in the oil industry.

### Plaza Huincul Industrial Complex (CIPH)

During 2022, there was an increase in the generation of hazardous waste due to the stoppage of the Methanol plant. During this period, equipment washing and line sweeping for PEM, among other activities, were carried out.

Regarding the generation of non-hazardous ones, it occurs due to wood and scrap as a result of changes in equipment, packaging, among other processes.

### **Spill Prevention and Control**

YPF has a spill prevention and control system that includes a preventive investment plan focused on the integrity, maintenance, and improvement of the facilities, and also develops an emergency response procedure and a computer communication system that automatically alerts the environmental authority in the event of a reportable incident. This system applies to all business units of the Company and to YPF QUÍMICA.

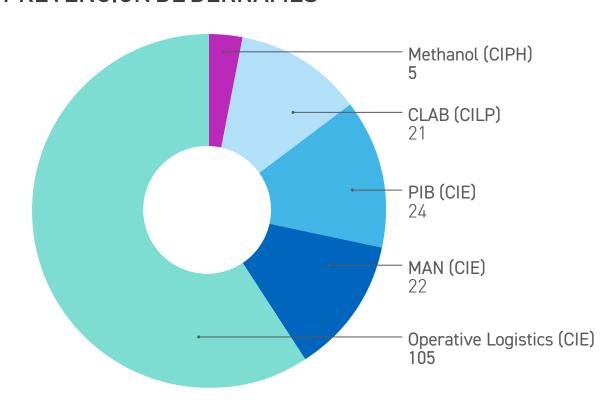
The preventive and predictive integrity plan of its facilities is aligned with Resolutions 785/05 and 404/94 of the National Energy Ministry, that enable guaranteeing physical integrity and methodically assess the environmental state of the facilities.

During 2022, we continue working on risk mitigation plans, including pipeline inspection actions and tank maintenance.

In YPF QUÍMICA, we have 177 tanks distributed in our complexes.

En 2022 en YPF QUÍMICA no se registraron derrames de hidrocarburos.

# CANTIDAD DE TANQUES DE PREVENCIÓN DE DERRAMES





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# 4.6. BIODIVERSITY

YPF Química participates in actions linked to the preservation of biodiversity.

Forestry and nursery activities are carried out for the reproduction of woody species and reforestation of areas internal to the industrial complex, and externally as a donation to the community. We highlight the signing of the Bonaerenses Native Agreement with the Ministry of Environment of the Province of Buenos Aires, which aims to exchange knowledge regarding the production of native forest species to repopulate degraded areas inside and outside CILP. About 500 individuals of native species and 300 of exotic species are planted annually.

The nursery, forestry, and subsequent maintenance activities of the planted individuals are carried out through the Cooperativa Futuro Ensenadense. This local cooperative fulfills an important social task at the municipal level, which the CIE accompanies and supports with the generation of the aforementioned activities and community interaction.

At CIPH, forestry and nursery activities are carried out for the reproduction of woody species and reforestation of areas internal to the Industrial Complex, and externally as a donation to the community. In 2023, CIPH is working on the development of the agreement with INTA, headquarters in Centenario, Neuquén, to improve the current system of production of species in nurseries and the efficient use of irrigation water.

In addition to this task, we are currently working on a project in conjunction with the National University of La Plata, for the captive production of the Patagonian Frog, a native and endemic species of the Province of Neuquén, which is in danger of extinction.

Both tasks have a great impact regarding the preservation of biodiversity and the sustainable development of the activity.

# 4.7. RISK MANAGEMENT OF CRITICAL PROCESS SAFETY INCIDENTS

GRI: 3-3 SASB RT-CH-540a.1

For the management of critical Process Safety incidents, we have a program for generating and updating process operational risk studies (HAZOP), which covers all the relevant processes and services of the operational plants. Each study is valid for 6 years if the process is not modified, during which time the study must be carried out again to review the identified hazards and the assessed risks. The compliance of the risk studies plan and the implementation of the actions included is found among the indicators sent to the Downstream VP level.

We also have a software called MOC-J5, to manage change on plant processes. It is designed to meet the standards requested by the internal regulations for Risk and Change Management in industrial assets. A change management cycle covers the steps of identification, approval, analysis, quantification of the risk, acceptance of the risk level, implementation, and communication to interested parties, and closure.

In addition, we have an emergency and crisis management system, which is carried out within the framework of internal regulations (Operational Excellence Policy), with a focus on prevention and strengthening resilience to unwanted events. It aligns the Prevention, Preparation, Response, and Recovery activities of the following disciplines:

- ightarrow Response to Incident Management
- → Business Continuity Management
- → Crisis Management

### **Audits and Management Assessment Processes**

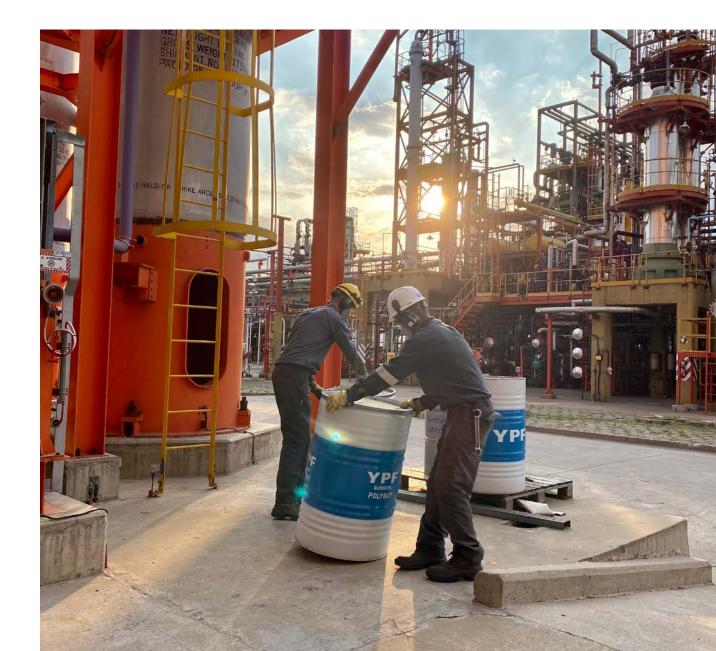
The topics of work on YPF QUÍMICA Safety Processes are audited through several audits, among the most important being:

# AUDIT TO ASSESS COMPLIANCE WITH THE ENVIRONMENTAL RESPONSIBLE CARE PROGRAM (PCRMA®)

In this audit, topics such as those regarding Industrial Risks Management and Change Management of process modifications are assessed.

#### AUDIT TO ASSESS THE STATUS OF PROCESS SAFETY IN THE FACILITY

It is carried out on a tri-annual basis, currently by the MARSH Broker; during this, international experts in Process Safety visit the company and the procedures related to Risk Management in the facility are reviewed; the topics covered are: Integrity, maintenance, engineering, operations, process safety management, etc. The last CILP audit, including CIE, was carried out in June-July, 2021, and the grade was "Better than Standard". The last CIPH audit was in November 2019, with a "Better than Standard" grade. In the second half of 2023, the audit process of the CIPH unit will be renewed.





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### Incidents and process safety monitoring indicators

In YPF QUÍMICA, we apply a categorization methodology of incidents in Process Safety, based on the API-754 recommended Practice, and we reflect the concepts of this recommended practice in the internal rules. For this, we have a software, called SIGEO, to report, categorize, and investigate incidents.

Regarding the formation of the incident investigation commission, its severity, consequence achieved, and its potential are taken into account; increasing the hierarchy of the personnel that makes up the investigation group as the severity of the incident in question increases. As part of the quality program, an exhaustive monitoring in the investigation of the incidents takes place, as well as implementing improvement actions derived from the above. It is permanently monitored that the deadlines for closing the investigations are in accordance with what is required by the regulations, as well as the compliance with the deadlines regarding improvement actions.

The Downstream VP has process safety performance indicators that are reported monthly, and are reviewed by the Operational Excellence and Sustainability Committee. The established KPIs aim to know the status of the process protection layers to ensure that they are properly maintained and active, such as, for example: management of console alarms, management of inspections of critical elements, management of mechanical pressure relief, among others.

PROCESS SAFETY INCIDENTS (PSIC)	UNIT OF MEASUREMENT	2022	2021	2020
Total process safety events	Number	4	4	6
No. of PSIC Tier 1 <sup>3</sup> Incidents	Number	1	2	3
No. of PSIC Tier 2 Incidents1	Number	3	2	3
Total PSIC Tier 1 <sup>4</sup> Rate (PSTIR)	Rate	0,29	0,60	0,90
Total PSIC Tier 2 <sup>5</sup> Rate (PSTIR)	Rate	0,87	0,60	0,90

<sup>3</sup> Level 1 and 2 process safety events: Unplanned or uncontrolled loss of primary containment of any material from a process, including non-toxic and non-flammable, or an undesired event or condition that, under slightly different circumstances, could have resulted in a loss of containment. As defined by the International Association of Oil and Gas Producers (OGP)

TIER 1 incident: on 01/30/2022, in the Dimersol-Chemistry Unit of the CILP, during scheduled tasks with the Olefins unit out of service, which consists of the emptying of a process accumulator, called 02332, into an atmospheric truck, movement of the suction hose, decoupling and acceleration of the truck engine are observed. The driver takes actions to stop the vacuum pump when a fire outbreak occurs in the tractor unit. The event is controlled through an Emergency Management plan. The driver receives medical attention for type AB burns on his arm, and the personal accident with loss of days leads to it being classified as a TIER 1 process safety incident, under API 754.

#### **2023 GOALS**

→ Carry out an assessment of the status of compliance with the Risk-Based Process Safety Management process, in the Industrial Downstream, DWI, under the CCPS, Center for Chemical Process Safety, model within our Operational Excellence and Sustainability system.

### MID-/LONG-TERM CHALLENGES

→ Identify GAPs, and deploy plans to improve Risk-Based Process Safety Management.

<sup>4</sup> Formula: Total count of tier 1 events/hours worked by own personnel and contractors x 1,000,000, according to IOGP recommendation – During previous years, the indicator was reported per 200,000.

<sup>5</sup> Formula: Total count of tier 2 events/hours worked by own personnel and contractors x 1,000,000, according to IOGP recommendation – During previous years, the indicator was reported per 200,000.

# YPF QUÍMICA

2022 SUSTAINABILITY REPORT

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# 5.1. OCCUPATIONAL HEALTH POLICIES AND MANAGEMENT SYSTEM

GRI: 3-3, 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9, 403-10 SASB RT-CH-320a.1, SASB RT-CH-320a.2

The Operational Excellence model is the basis that allows us to guarantee the safety, health and well-being of people, take care of the environment through efficient use of resources, and ensure the reliability and integrity of our assets and our operations. At YPF, Occupational Health Management is comprised by 3 (three) management areas:

- → Preventive Health Management and Occupational Health.
- → Medical Emergency Management.
- → Labor Sanitation Management.

The mission, vision, and values of the Occupational Health Management are closely linked to the Operational Excellence Policy.

Our framework of reference is the YPF Health Management Standard, which objective is to establish and spread the criteria and principles regarding Health at YPF, in line with the commitment to promote and preserve the health and safety of people in the organization set forth in the Operational Excellence Policy, which will be applicable to YPF, its controlled companies, and contractors.

Comprehensive Health Management includes both the management of Occupational Health and the Well-being and Emotional Health of people. This is carried out through multidisciplinary activities aimed at promoting and preserving the health of the personnel in physical, psychological, and social aspects, by exercising control and surveillance over them, with the following purposes:

VISION	MISSION	VALUES
To be an efficient Occupational Health service, focused on the care of people and a benchmark of its type at the national level.	Manage Occupational Health with quality, directly and through suitable provider companies that adhere to the YPF Regulations and applicable laws, to contribute to the preservation of the health and well-being of the people who work for the Company; define the resources and professional skills necessary for health personnel.	Respect for the dignity of people, reliability in our medical actions, timeliness of care and legal compliance.

- → Health promotion.
- $\rightarrow$  Disease prevention.
- → Attention to medical consultations.
- → Progression follow-up until medical discharge.

The pillars of the occupational health management system of YPF and YPF QUÍMICA are:

- 1. Management of Preventive Medicine and Occupational Medicine.
- 2. Emergency Management.
- 3. Sanitation Management.
- 4. Quality Management System in medical care.

The facilities of YPF QUÍMICA are included within the management of the YPF Health Service. This department ensures that the legal requirements of the Superintendence of Occupational Risks (SRT) are met. Additionally, it implements the internal management standard on healthy work environments and responds to medical emergency situations and care for illnesses of those who work in our facilities.

The Regional Occupational Health Leader and Management present university training in Occupational Medicine and Quali-

ty Management systems. These professionals are members of the Company.

YPF QUÍMICA has formed a joint committee, with a monthly frequency; it deals with issues that arise from daily work, proposals from the workers, in order to bring together all the parties involved and agree on identified improvement actions as a team.

Every year, the Health and Safety areas jointly prepare the occupational risk maps of all personnel to establish the specific health examinations. According to this information, the Occupational Risks Insurance Company (ART) establishes the medical evaluations that must be carried out. The Medical Service is responsible for its enforcement and monitoring. The following table shows the management rates reported by Occupational Health.

	2022	2021	2020
Rate of compliance with periodical medical examinations (ICEP) <sup>1</sup>	85%	83%	97%
Risk Examination Compliance Rate (ICER) <sup>2</sup>	100%	94%	They were not carried out due to the pandemic

<sup>1</sup> ICEP: Health examinations compliance rate: Number of health examinations per year of calculation/own personnel.

<sup>2</sup> ICER: Examination compliance rate in the population at risk: Number of examinations carried out in the population at risk/exposed population. Exposed population: segment that depends on the annual evaluations that are made regarding the risk of their jobs.



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In 2022, Química's health unit was certified in the Quality Assurance Program for Medical Care, Patient Safety and Efficiency, granted by CENAS (Specialized Center for Health Standardization and Accreditation), with the aim of improving the quality of medical care, the safety of people, and the efficiency of the processes. Of a total of 68 (sixty-eight) standards for the Regional Coordinations (CR – Health Coordination Unit – Regional Coordination Office) and 69 (sixty-nine) standards for the Health Units (CCME – Medical Center), the compliance percentage in Química's health unit was 96%.

Química's health unit is located within the facility, in a non-in-dustrial area. In turn, the building where it operates has an area for urgent and emergency care (Shock Room), where patients are assessed and categorized. According to the severity and the presumptive diagnosis, the transfer requirement is defined. We also have two offices and a waiting area.

### Culture and quality services for occupational health

YPF's well-being culture has four main concepts: social, financial, physical, and emotional. Those linked to Occupational Health are physical well-being, in which actions focused on strengthening, training and caring for the health of people who work in the Company were implemented, and Emotional Well-being, in which actions aimed at strengthening the mental health, managing stress, and emotions were implemented.

The Physical Well-being actions that were carried out were:

- → Healthy walks organized in September and October, for the CILP area, in the Refinery; collaborators from the Refinery and Química participated.
- → Virtual talks and workshops on healthy eating, given by specialists.
- → Talks given by specialists on awareness in the fight against breast cancer, in the context of the Health and Women

program.

The actions developed from the Emotional Well-being main concept were:

- → Weekly open Mindfulness sessions.
- → Within the framework of World Mental Health Day, a virtual talk was organized, entitled: "Las personas, la neurociencia y las organizaciones" (people, neuroscience, and organizations), by specialist Matías Bertone.
- → Wellness Capsules: these are short audiovisual material (3-4 minutes) in which tips and recommendations are offered. The themes of the capsules published in 2022 were: What is well-being?; The science and practice of well-being; Emotions; Live the present; Gratitude and well-being; Make decisions; Resilience; Consumption; and Regulate anxiety.

Of these well-being actions, 198 people from YPF Química participated, of which 85% were men and 15% were women.

- → Also, in 2022, we offered training courses on different topics, such as COVID/Flu, CPR First Aid with the use of AED, Sexually Transmitted Diseases/HIV,
- → Healthy Eating, among others.

The assessment of hazards and risks of occupational illness or disease is defined in the risk map prepared by Safety and Hygiene. To mitigate the occurrence of these hazards, we work together with Occupational Hygiene to determine the conditions of the person's job. Exposure to noise is one of the main hazards that presents a risk of illness or disease (noise-induced hearing loss).

Among the main blameless diseases presented in 2022 are respiratory and digestive diseases. And trauma is the main disease in the guilty category.

OWN PERSONNEL	2022	2021	2020
		2021	
Number of deaths caused by a work-related ailment or illness	0	0	0
Number of cases of recordable work-related ailments and illnesses	16	41	19
Main types of recordable work-related ailments and illnesses	Trauma	COVID-19 occupational disease: 100% of cases	COVID-19 occupational disease: 80% of cases
CONTRACTOR PERSONNEL	2022	2021	2020
Number of deaths caused by a work-related ailment or illness	0	1 (COVID-19)	0



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### **Preventive Programs**

Adapted to the pandemic context, the Company's main preventive programs were developed, Smoking Cessation and Cardiovascular Prevention and the Health and Women Program.

### Psychoactive substance abuse prevention program

During 2022, within the framework of the Policy and Program for the Prevention of the Use of Psychoactive Substances in the workplace, we continue to carry out preventive medical evaluations. The goal for 2022 was to evaluate 40% of our population and contractors. In the case of YPF Química, as seen in the table, the objective was achieved.

### 2023 Goals:

- → Compliance with Health examinations Goal 85% (Minimum 80%, Maximum 90%)
- → Cardiovascular Prevention Program Goal 80% (Minimum 70%, Maximum 90%)
- → YPF Health and Women Program Goal 80% (Minimum 70%, Maximum 90%)
- → Well-Being
  - Minimum: Deployment of at least one cross-sec tion al campaign with a focus on well-being aware ness. Activation of Wellness Week MIN.
  - Maximum: Network of Well-being Ambassadors. Action deployed by each regional. Based on the needs detected
- → More ambitious: Improve % of completion of annual periodic examination by 10pp vs. 2022 (86%).

### SMOKING CESSATION

They are conducted jointly with YPF's health insurance to advise and train the company's own personnel regarding the possibilities of treating a smoking habit. In 2020, 490 people were under treatment. In 2020 and 2021, no YPF QUÍMICA personnel took the program.

#### **CARDIOVASCULAR PREVENTION**

The Cardiovascular Prevention Program detects It is a joint initiative between the people in our company with one or several cardiovascular risk factors, which increase the probability that they may get sick. In this way, these factors are controlled by following the treatment recommended and carried out by the patient's primary care physician.

The highest percentage of prevalences found in the annual examinations are: alterations in lipid metabolism, hypertension, sedentary lifestyle and overweight. Regarding these deviations, we monitor the affected people, with referral to corresponding specialists and progression monitoring of the cases.

#### **HEALTH AND WOMEN PROGRAM**

Occupational Health and YPF Social Work, which includes our collaborators and the women of YPF families.

Through the program, we train and promote access to health systems, to promote the performance of gynecological studies, a pillar of women's care. This allows us to propose a situation analysis and design strategies to address risk factors, disease prevention, and preserve the health and well-being of women.

PREVENTIVE	2022			2021			2020		
EXAMINATIONS	TOTAL CARRIED OUT	%	TEST%	TOTAL CARRIED OUT	%	TEST%	TOTAL CARRIED OUT	%	TEST%
Drugs	522	76	4	887	88	1,24	571	68	0,35
Alcohol	258	51	0,77	222	22	0,00	233	28	0,42

### Mid- and Long-Term Challenges:

- → Maintain the Quality SIG
- → Review of Digitized Clinical History
- → Virtual medical consultations and telemedicine



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### **5.2. PEOPLE SAFETY**

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One priority of YPF QUÍMICA is to ensure care for the health and safety of all those who work in the Company, as well as the reliability and integrity of its assets, businesses, and projects. To that end, we implemented occupational, industrial, and process risk management policies, defined for YPF, focusing on timely adopting indispensable preventive actions.

We operate in strict compliance with the national regulatory framework and domestic regulations, pro-actively assuming benchmark standards in the case of an absence of specific laws.

The activities are developed within the framework of the YPF Operational Excellence Model and focus on three fundamental aspects of the People Safety management system:

- → Identification and mitigation of occupational, industrial, and process risks
- → Strengthening the company's emergency response capabilities
- → Continuous improvement

The Operational Excellence and Sustainability model Environment, Health, and Safety (MASS) manager, who reports to the Operation Management and the VP of Sustainability, and Operational Excellence.

The corresponding monitoring for activities to unfold within acceptable risk values is being implemented, including the systematic preventive observations; and every person detecting a risk in the development of activities can report it to their reporting hierarchy line and request the task be suspended. We also carry out reports that are presented and discussed in

safety committees, where risks are addressed, as well as action plans and the barriers to reduce them.

On the other hand, all personnel working at YPF QUÍMICA -whether our own or under contract- is subject not only to complying with the applicable legal demands, but also to the corporate requirements and environment, health, and safety goals, and to those defined by the Contract Resources area hired by the company. Each industrial complex creates its Safety Committee, in which the industrial complex management and top reporting hierarchy participate, and they analyze the detected deviations and determine the risk mitigation plans and potential negative impacts that may affect the business operation.

On its part, the MASS Follow-Up Committee analyzes the performance of the suppliers involved in these matters, assessing and defining improvement plans and the necessary corrective actions.

The results of the reports are reinforced at each plant level and in the sub-committees.

YPF has a formal hazards identification process and assessment of occupational risks that is applied in YPF QUÍMICA operations facilities. The hazards are identified with the help of a verification list, and the associated risks for each work position are based on exposure and probability. For each evaluated risk, control measures are implemented, which depend on the evaluated risk level. The following table shows the accident frequency rate.

In 2020, 2021, and 2022 we had no fatalities and the number of computable accidents with loss of days remained within the target values set by the Company (target value AFR 2022, Total Downstream Personnel: 0.29). On the other hand, people's safety objectives have a strategic projection with a preestablished year-on-year reduction from the Company.

From the point of view of accidents with injuries, at YPF QUÍMICA

### ACCIDENT FREQUENCY RATE (AFR) - TOTAL (LTIFR)

Number of reported accidents per 1,000,000 hours worked



only one accident was recorded during 2022. It was investigated in accordance with YPF regulations. From this investigation, different improvement actions emerged aimed at minimizing the probability of repetition.

The common types of injuries due to work accidents are described in the plant risk sheets and available in businesses.

These sheets contain the corresponding risk assessments and their respective mitigation actions. No major accidents associated with the risk sheets are recorded in the required period.

### Prevention culture of our contractors

In the case of contracting companies, each year we design special training programs, which also respond to the specific needs of each position and, to this end, we have a training program that is taught through the UTN, aimed at training and leveling of those people responsible for Hygiene and Safety of the



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contracting companies. It is done remotely with a workload of 60 hours distributed in 8 weekly modules. In addition, specific training is provided permanently to the personnel of the different plants.

NUMBER OF STUDENTS AT UTN 3	2022	2021
Admitted students	5	28
Approved students	3	20

3 Number of students at UTN Admitted students Approved students

We created and executed several internal communication campaigns to boost prevention culture. The content is disseminated on online platforms, such as Workplace (internal communications platform), and we carry out specific actions in each area. Health, safety and environmental issues are incorporated both in the annual surveys carried out among personnel, and in the CEO's periodic communications to the Company.

Since 2020, due to the context of the pandemic, virtual training was expanded, not only focused on entry-level personnel, who are the most exposed, but also postgraduate degree in safety culture was made available to management levels. These trainings are given by the Institute for Culture in Industrial Safety (ICSI), a multinational organization based in France, in agreement with the University of San Andrés. This is added to a training program for senior management offered by the same academic entity.

# **5.3. OUR TEAM**

# 5.3.1. POLICIES AND PEOPLE MANAGEMENT SYSTEM

YPF QUÍMICA is comprised of a team of diverse people who are committed to the organizational purpose, obtaining results, and developing new business challenges. That is why we

promote environments that encourage well-being, diversity, and productivity, to include, build loyalty, and contribute to the growth of the human talent that YPF QUÍMICA needs.

Diversity, equity, and inclusion are a central part of our Company, as we believe in the confluence of different approaches to promote innovation and enrich our team. We seek to increase the participation of women, of groups with diverse origins and belongings, and of people with disabilities, through equal access to opportunities that open at YPF QUÍMICA.

We have a Diversity Committee sponsored by five Vice-presidencies, whose purpose is to guarantee transparency and the plurality of voices and opinions and promote an integrative approach; we also have a Domestic Violence Subcommittee, in which representatives from the areas of Compliance, the Diversity Committee, People and Culture, Health, Labor Relations and Legal participate; one of its objectives is to accompany the women of our Company who are going through this situation with the resources that we make available to them.

In line with our Diversity and Inclusion Policy, the Harass-ment-Free Workplace Policy, the Human Rights and Relationship with the Communities policy and our Behavior Manual, we monitor the indicators of complaints received in the discrimination complaint channels, mistreatment, abuse of power, and harassment.

Our Compensation and Benefits standard aims to ensure the internal equality of personnel, that is, to establish similar salary conditions for the same position/responsibility, seniority, experience and performance, and observe competitiveness with reference to our comparison market.

### **5.3.2. TALENT MANAGEMENT**

GRI: 3-3, 2-30

In 2022, we encouraged initiatives towards strengthening leadership, responding to the work profiles required in our industry

and incorporate young professionals with specialized technical know-how.

After the gradual return to in-person work once the health restrictions due to the pandemic had been lifted, we implemented a flexible hybrid working model, combining distance work with the operational requirements in our activity.

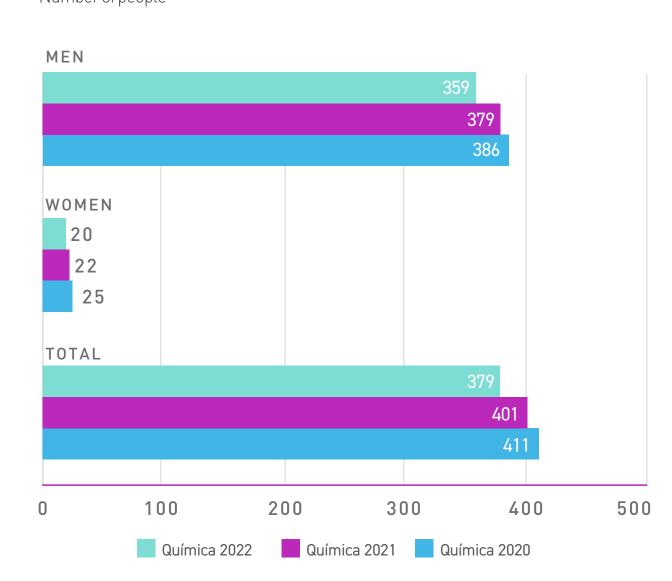
Computer equipment and software were made available for the people who work under the hybrid modality, as well as ergonomic chairs and a screen of their own choosing, to contribute to the quality of their home-office work activity, in addition to wireless peripherals and ergonomic pads.

Additionally, we kept the prevention campaigns and our attention towards health matters active, in order to ensure the physical and emotional well-being of our team.

In line with our objective of promoting inclusion, since 2016,

### OWN AND CONTRACTED PERSONNEL

Number of people





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after the break due to COVID-19, we have developed programs aimed at promoting employability for people with disabilities from different social groups, through the acquisition of knowledge, experiences and behaviors of work culture.

### 5.3.3. DEVELOPMENT AND RETENTION

GRI: 2-7, 2-8, 3-3, 401-1, 404-2, 404-3, 405-1

A central part of our People's strategy is the attraction, on-boarding, and development of young talent with a relevant and key profile for our performance. YPF QUÍMICA offers a value proposal that aims at enhancing our human resources skills, to administer compensations adequately and deliver a set of benefits destined to favor people's comprehensive well-being.

Seeking to rebuild the value proposal to cooperators, we designed a comprehensive instance to strengthen our positioning as an attractive place to work and develop a professional career in the energy industry.

As an employment practice, an evaluation of the candidates was incorporated in the selection process based on expertise and skills free from biases; and we did our best to keep the candidate permanently informed regarding the evolution of their application. Tracking the number of published vacancies, external entries, internal movements, and coverage times in the processes are also carried out.

A specific tracking was carried out regarding those people identified as having potential and who have left the Company, in order to know the reasons, and to have information to activate and adjust the proposal for reducing this indicator.

### Performance assessment

100% of our staff had an individual performance assessment in 2022. During the monitoring stage, both leader and collaborator maintain stages of agile conversations and team eval-

uations, in which they can provide evidence or comments on performance and objectives; at the end of the evaluation process, calibration conversations are carried out, in which the percentages of the suggested curve obtained are reviewed and adjusted. Each collaborator receives feedback.

The leadership and management roles also applied to the 360° feedback tool, which measures the development of leadership competencies that promote the desired culture in the Company.

In order to achieve greater quality of conversations and continue working on improvement opportunities, the assessment scale for the staff outside of the scope of bargaining agreements was modified, adjusting the percentages in the suggested curve distribution. The performance assessment of personnel within the scope of the bargaining agreements was maintained without modifications to the previous scale.

PERFORMANCE ASSESSMENT	2022	2021	2020
By gender			
Men	100%	100%	90%
Women	100%	100%	100%
By job category			
Executive officers	100%	100%	100%
Managers	100%	100%	89%
Supervisors	100%	100%	100%
Analysts and Coordinators	100%	100%	100%
Senior personnel under bargaining agreement	100%	100%	88%
Entry-level personnel under bargaining agreement	100%	100%	90%

### **Leadership strengthening**

During 2022, the Leadership Program for Executives was launched, together with the University of San Andrés and the School of Administration and Business of the Universidad Austral Argentina (IAE). During 11 days divided into 2 months, our leaders worked on their role and leadership, keys to the business future.

We expanded the learning ecosystem with the program called Líder Ágil, for the development of supervisory skills. At the same time, the program Ser Líder (Be a Leader) was redesigned; and, for the first time, the Leadership for Supervisors was implemented in a hybrid format.

We held conferences on different themes in a virtual "coffee" format (Liderar Café) and coaching to accompany strengthening for individuals and for groups; and the offer of coaching for executives and managers was also maintained.



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### **Mentoring**

Directed to speed the development of expertise to take on more complex challenges, our Mentoring de Altos Potenciales (High Potential Mentoring) program, that includes a mentor and a trainee, had duos participating, to strengthen and facilitate the in-house learning networks, within the culture and YPF leader profile framework.

At the same time, we applied techniques such as shadowing, based on the observation and exchange of roles. In light of the contents considered crucial, the leadership programs were reviewed, looking for new proposals of an innovative nature, based on training, mentoring and mobility plans.

### **Attraction and Retention of Talents**

YPF QUÍMICA strives to attract, train and develop young professionals with great potential, as well as the different profiles of interest for our business strategy.

It is our goal to boost people's skills and promote a high-performance culture and, to that end, we lean on an adequate administration of compensation and benefits.

HIRING AND DISMISSALS	UNIT	2022	2021	2020
New Contracts				
Men	Number	11	18	3
Women	Number	0	2	1
Turnover rate				
Men	%	5	5	6
Women	%	10	0	5

The management is aimed at promoting self-development, based on an individual initiative to incorporate knowledge and abilities, and to accompany this process through a leader's active role. Therefore, we offer programs on technical abilities and new proposals for the development of other more specific ones, together with incorporating websites and access to training materials in Curiosy, our learning platform; and accompanying our leaders in exercising their role and acquiring new skills for managing teams.

### **5.3.4. COMPENSATION AND BENEFITS**

GRI: 2-21, 3-3, 202-1, 401-2, 401-3

Personnel compensation at YPF QUÍMICA includes fixed monthly remuneration (salary and additionals), variable remuneration (a bonus linked to the achievement of company, business, and personal objectives associated with performance) and long-term variable compensation, which promotes permanence of executives and key personnel through the granting of Company shares.

As part of the Employee Value Proposal (PVE), above the requirements of labor legislation, we launched the BienEstar Program and also the Ymile recognition program, to distinguish people for their exceptional achievements ("extra mile"). BienEstar focuses on generating value for people, with the purpose of increasing their commitment and consequent productivity boost. The program was accompanied by a mobile platform, with activations for knowledge of its benefits, grouped in 4 dimensions: physical, emotional, financial, and social. The main are detailed below: Medical plan, life insurance, personal loans, daycare for boys and girls, discounts on gyms, discounted purchases, among others.

In addition to our own personnel within YPF QUÍMICA, we have contracted personnel and these are outsourced personnel who perform functions comparable to a position within the operational model of YPF QUÍMICA. This personnel is perma-

nently dedicated to the facilities (100%), the selection and definition of conditions is in charge of YPF QUÍMICA, they report directly to a YPF QUÍMICA staff leader and the assignment is indefinite or for a period associated with the times of a work or a project, the latter being temporary. The hired personnel are provided with some benefits, such as dining service, transportation, corporate gifts, etc.

We also interact with personnel affected by a contract for services that is determined by the contracting of an asset (equipment, specialized facilities, materials) or a product (studies, audits, certification, etc.), and constitute the nature of the contracting object, and not the people required for its execution; therefore, the YPF QUÍMICA benefits program does not reach this population.

### **Shared parental responsibility**

To contribute to the well-being of our staff and promote the balance between work and personal life, we continue to build actions and recognitions. The part-time modality is applied for returns from maternity leave, the benefit provided by YPF consists of an extended leave: the working day is reduced by one hour which, added to the breastfeeding time, generates a reduction of 2 hours in the usual working day until the year of birth or adoption of the son or daughter, as well as the possibility of reducing the working day for care reasons, thus maintaining 100% of the salary and benefits.

In this area, we extended care leaves for pregnant and non-pregnant caregivers, a concept acquired in 2021, in order to promote the shared distribution, between men and women, of domestic tasks and personal care, which favors the work development and care for the family equitably.



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PARENTAL LEAVE UNIT	2022	2021	2020
Women			
Took parental leave Number	3	4	1
Returned to work after Number parental leave	3	4	1
Men			
Took parental leave Number	0	7	11
Returned to work after Number parental leave	0	7	11

The number of days of Leave per pregnant caregiver that applies is 90 consecutive days: 45 days before and 45 days after the expected delivery date.

Some of the options at the end of the leave for a pregnant caregiver, which are implemented to the exclusion of each other, are:

- → Continue your work in the company.
- → Terminate your employment contract.
- → Be on leave for a period of no less than three (3) months and no more than six (6) months.
- → Extend the Leave for a Pregnant Caregiver for one month with payment of salaries. After that fourth month, the working day will be reduced by one hour which, added to the breastfeeding term, generates a reduction of 2 hours in the usual working day, until the year of birth or adoption of the child, also with 100% of the salary.

Since 2022, non-pregnant caregivers can access a leave of 30 (thirty) consecutive days, whether the child was born by normal birth or cesarean section.

### **5.3.5.STAFF TRAINING**

GRI: 3-3, 404-1, 404-2

During 2022, we worked on development actions to ensure critical business capabilities, with emphasis on the evolution towards more agile processes. Along these lines, we organized talent review meetings to reflect on the profile and potential of the people who are part of the Company, identify possible successors to critical positions and define consistent development plans.

We promoted development of technical ability programs: Expertise and FTO.

→ Expertise: It is a structured program for professionals, the objective of which is to develop technical capabilities in critical disciplines with a direct impact on business, thus ensuring that the Company has the level of specialization required to maximize results. Junior, semi-senior, and senior levels are covered, on a mandatory basis, and principal and advisor, according to the needs of the business and the career interests of the professional.

→ FTO: It is a model of learning paths for the training of operational technical personnel, with a mandatory and periodic course, with the purpose of ensuring the level of knowledge necessary for the operation and its current updating.

Betting on the incorporation of new learning platforms and technologies, we worked on two new LXP (Learning Experience System) platforms, where we unified the digital learning experience with knowledge management, and we organized and enhanced our new cognitive and mobile ecosystem by integrating everything.

In 2022, CURIOSY BY DEGREED was launched, which meant the implementation of a cognitive system powered by artificial intelligence, for the development of the capabilities ecosystem. The platform offers an organized experience in itineraries linked to six different digital itineraries in a training environment, with 18 practice communities, close to 35,000 contents and 40 internal and external top-level portals.

AVERAGE TRAINING HOURS	2022		2021		2020	
AVERAGE I RAINING HOURS	HOURS	AVERAGE	HOURS	AVERAGE	HOURS	AVERAGE
Men	873	3,1	970,6	3,4	1.994,1	7,1
Women	398	19,9	409,8	20,5	119,8	6,3
Total	1.271	4,24	1.380,4	4,53	2.113,9	7,07



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→ Other resources were added to internal training, which are usually defined as "informal": articles, electronic books, podcasts, portals, and videos, which, although they contribute to self-learning and self-knowledge, their use is not recorded as training hours; this causes a decrease in its amount to be observed, precisely due to the use of other alternative resources. Likewise, it is worth mentioning the commitment and investment of YPF QUÍMICA to professionalize and develop the capabilities of its operational, technical and professional staff with external training proposals.

We have a set of programs to accompany those people who are leaving, either due to retirement or resigning.

- → Retirement Preparatory Program: Destined for people who are three years away from retiring from their active role. The goal is to accompany them on the path between the work cycle and their retirement, offering information regarding the end of their contract with the company, as well as helping them with self-reflection on plans towards this new stage after their work life.
- → Outplacement Program: Aimed at management and executive levels leaving the Company, in order to assist them in their job transition process through conversations and the application of tools. It makes it easier for them to find a new purpose and reintegrate into the job market.

### Training in ethics, integrity, and human rights

At YPF QUÍMICA we continue to strengthen an ethics and transparency culture in the organization, subject to our corporate ethic values, the business sustainability and the strengthening of our brand.

In 2022, we participated in the annual event #ModoCompliance2022, gathering over 100 people and accompanied by the organization's President and CEO, we renewed the commit-

ment to integrity, adding public-private synergy and regional perspective, with the participation of national and international speakers and referential leaders.

To strengthen our values and standards and incorporate them into all our activities and business relationships, the company annually revalidates the commitment to 100% employee acceptance of the Code of Ethics and Conduct, and also provides training on its associated policies and procedures.

In terms of diversity, equity and inclusion, during 2022, open talks were generated on gender, diversity, self-development, parental co-responsibility, good treatment, unconscious biases, equal opportunities and non-discrimination.

Additionally, we encouraged communication campaigns on International Women's Day to reflect on achievements and challenges in the matter of gender equality, and on the International Day for Elimination of Violence against Women to create awareness on gender violence, call on its eradication and reinforce spreading knowledge regarding Line 144 (a number offering containment and advice to women and LGBTI+ people going through gender violence).

# 5.3.6. DIVERSE AND ADVANCED HUMAN CAPITAL

GRI: 3-3, 405-1

Diversity, equality and integration are a central part of our Company, as we believe in the confluence of different approaches to promote innovation and enrich our team. YPF represents many different ideas, experiences, and contexts. We know diversity not only creates a more representative workforce, but also makes companies more innovative, profitable and successful. Thus, our commitment to make gender equality, diversity, and inclusion a vital component of our culture is maintained. We seek to increase the participation of women and groups with minority representation through equitable access to opportunities that open at YPF.

### At YPF QUÍMICA, we are part of the commitment of YPF

At YPF QUÍMICA, we have exceeded the goal of 25% of women in leadership positions, we have 27% of women in executive and managerial leadership positions, and 55% of women in positions with staff in charge.

YPF QUÍMICA				
GENDER DISTRIBUTION IN LEADERSHIP POSITIONS	UNIT	2022	2021	2020
Executives and Managers				
Men	Number	8	8	7
Women	Number	3	3	3
%Men	%	73	73	70
% Women	%	27	27	30
Leadership positions (personnel	in charge of	16 to 21	people	e)
Men	Number	5	7	6
Women	Number	6	8	8
Men	%	45	47	43
Women	%	55	53	57

# Diversity and Inclusion Network of the Argentine Chemical Industry of the IPA

We are an active part of the Network for Diversity and Inclusion in the Chemical Industry, which is part of the Petrochemical Institute of Argentina (IPA), since its beginning, and YPF is currently leading this Network, comprised by industry representatives.

The Diversity and Inclusion Network of the Chemical and Petrochemical Industry was born in March 2020, due to the need raised by many companies in the sector. Given the importance that this topic acquired for the growth of companies and the



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positive impact it produces on business results, it generates a greater predisposition to innovate and a greater ability to recruit a diverse group of talents, among other aspects. This is a Network comprising members of the companies that are partnered with the Petrochemical Institute of Argentina (IPA) and the Argentine Chamber of the Chemical and Petrochemical Industry (CIQyP).

The NETWORK holds monthly meetings on the topic, to discuss actions, share experiences and define good practices in diversity and inclusion, in order to create tools to be used by companies of the field.

#### ACTIONS 2022

Diversity and Inclusion Pilot Workshop in order to provide the first tools to work on this topic. Two companies in the sector told their experience.

Release of Newsletter No. 1 and 2 of the RED on Best Practices of the companies in the sector. Subjects covered were "Domestic Violence" and "Professionalizing Practices". Four companies in the sector explained how they deal with these issues internally and what action protocols each one applies to provide knowledge and tools to companies in the sector.

"MANAGING DIVERSITY AND INCLUSION IN COMPANIES BOOSTS OUR INDUSTRY" Meeting, in which the Director of the Center for Work-Life Balance, Family and Business of IAE Business School (Austral University) presented the results of the survey conducted by IAE on "Expectations for personal, family and work life of new generations".

Within the framework of ARGENPLAS, the IPA organized in June the VII Petrochemical Update Conference and the Diversity NETWORK participated by moderating the "Talent Development" Panel, in which we presented the results of the Diversity survey in the sector. This was conducted by the IPA and compared country, regional, and global data. Leading educational institutions discussed talent development, the initiatives adopted in a company with the intention of promoting professional growth, the importance of incorporating diverse groups and how this impacts on obtaining better results in the Company.

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# 6.1. POLICIES AND MANAGEMENT SYSTEM

With a long-term focus, YPF Química contributes social value through the development of our industrial and economic activity and the generation of employment in the environment in which we operate. Our supply chain involves stakeholders committed to the production, transportation, and distribution of our wide range of products, which promote an improvement in the quality of life and the economic development of the country.

In order to enhance the contribution to society, we work together with public agencies, private institutions, and the social sector in areas of strategic value, such as strengthening technical education with a focus on gender equality through the Fundación YPF, which promotes energy, science, and technology education, and direct social development in the communities where we operate.

We continue to promote a social investment strategy which inspires to be an active part of the solutions that respond to the needs of the communities near production centers. It also motivates to make contributions to special local development, health, and environmental protection projects, among others, where employees participate in volunteering initiatives.

# 6.2. RELATIONSHIP WITH THE COMMUNITIES

GRI: 3-3, 413-1 SASB: RT-CH-210a.1

YPF Química builds relationships with the communities of the regions where we operate, based on mutual respect, acknowledgment, trust, and the creation of shared value.

Activities for this purpose are in compliance with current legislation in force and YPFS.A.'s Relationship with the Commu-

nities Policy, which seeks to establish long-lasting community ties, governed by dialog, integrity, responsibility, good faith, transparency in information and openness with all the people.

### **6.2.1 COMMUNITY PARTICIPATION STRATEGY**

We have participation strategies with the communities in areas of influence that create and leverage shared value. We strive to have a fluent dialog with the communities in the areas where we operate.

Among regular channels of communication, YPF has a Twitter account, through which news and information on drills and operational issues with impact on the community are shared. Some followers include mainstream media journalists of the region.

# **Emergency Response Plan with Impact in the Community** (PREIC)

In 2019, a commitment to formally create a PREIC was signed by the La Plata, Berisso, and Ensenada municipalities, the Naval Prefecture, the La Plata Port Management Consortium, Air Liquide, the Buenos Aires-La Plata free-trade zone, Camuzzi Gas Pampeana, Copetro, Petroquímica Cuyo, YPF, and the Berisso and Ensenada volunteer firefighters, and the community represented by institutions.

Proximity between the community and the industrial park requires responses to queries about potential risks.

PREIC is an effort to coordinate the emergency plans of each participating entity and company, in order to minimize the impact of any potential incident that may affect the communities or the environment of the Ensenada, Berisso, and La Plata municipalities, while complying with national, provincial, and municipal regulations on prevention, mitigation, response and recovery matters.

Work during an emergency requires trained personnel and an informed community that can understand how important it is to take care of oneself. The goal is to provide an immediate, effective response to emergency through shared work.

To guarantee an effective plan, we organize awareness-raising meetings, drills, and training across the sectors involved, according to each sector's role.

In the event of an emergency, those in charge of the response will get to work to prevent or minimize consequences. If, at any time, the parties come to the conclusion that there might be a potential impact on the population, plans shall be implemented so that the local population may take any necessary self-protective measures.

Threats can be of a natural origin, originated by human activity or a combination of both causes.

Claims or complaints that must be dealt with by YPF are received through a telephone line (442-4000, switchboard) and are forwarded to the shift manager, who records the call data in the Communications book and sends a team to measure the reported impact. The External Affairs sector is informed simultaneously. If the impact exceeds the individual consultation, the WhatsApp group of the Response Plan for Emergencies with Impact on the Community, PREIC, which includes agencies from Ensenada, Berisso, and La Plata, is informed. In this case, their intermediation also contributes to the communication of the response. The claim or complaint may also be received by note.

### **6.2.2. COMMITMENT TO SOCIAL INVESTMENT**

YPF QUÍMICA's Social Investment strategy, embedded in YPF's sustainability strategy, is based on YPF's formal policy of social commitment to education, science and technology, respect and sustainable development of communities, and care and protection of the environment of the areas where we operate.



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Actions are related to the country's social and economic development, particularly in communities where we carry out productive and commercial activities. As an outstanding action by YPF QUÍMICA in 2022, under the Ensenada Sostenible program, we conducted a tree planting volunteer program, in a pilot phase, with Química personnel and the coordination of External Affairs and Social Investment; 20 volunteers participated and planted 100 jacarandas in the Parque de los Trabajadores, located in Ensenada's Mosconi neighborhood.

The following table shows the main lines of action and impact achieved in 2022.

	PROGRAMS AND IMPACT 2022	MID-TERM OBJECTIVES
Education, innovation, and technology  Supporting children's, adolescents' and adults' access to quality education, with emphasis on raising awareness on energy.	Espacio de la Energía (Energy Space). We received over 8,000 people in 292 visits, out of which 266 were from educational institutions.  Espacio de la Energía expansion - República de los Niños (children's park). We were visited by 128,624 people.	<ul> <li>Mid-Term:</li> <li>Increase the number of visits to Espacio de la Energía by 10% from Berisso and Ensenada, with the aim of strengthening links with institutions in neighboring cities.</li> <li>Expand the university program to other universities outside the region.</li> <li>To make the YPF 360° tool available to universities and technical schools in the region.</li> </ul>
Local development  Promoting initiatives related to social and economic development, aimed at improving the quality of life of the inhabitants of our working regions.	<b>Futuro Ensenadense Cooperative.</b> Planting and donation as part of the community exchange.	<ul> <li>Mid-Term:</li> <li>Implement volunteer actions with the clubs bordering the CILP complex.</li> </ul>
Strengthening abilities and competencies  Widening opportunities for participation and empowerment of infrastructure and employability in communities	<b>Downstream Department. 2</b> 8 professors, employees of our company, teach classes to share their knowledge with Chemical Engineering and Industrial Engineering students from Universidad Nacional de La Plata and Universidad Tecnológica Nacional - Regional La Plata.	<ul> <li>Mid-Term</li> <li>To increase the number of teachers/ employees of our company participating in the continuity of this program.</li> </ul>
Care and protection of the environment  Innovation and leadership in sustainability and energy transition, aimed at leveraging processes for the prevention, preservation and restoration of environmental capital.	CIIEM (Ingeniero Enrique Mosconi Industrial Complex) Complex Nursery. Training of the Ministry of Environment; Donation of wood to the Cooperative for the manufacture of compost bins; Donation of Ceibo tree seeds, at the different entrances to the Complex, to the workers during the Environment Week; Plantation sketch that allows us to evaluate the progress made in forested areas with native species and the reforestation of the protected areas already existing with such species.	<ul> <li>Mid-Term:</li> <li>Undertaking plastic collection actions with schools in the area, to deliver to hospitals in the area and raise awareness about recycling.</li> <li>Composting talks in schools.</li> </ul>
Diversity and Inclusion  Supporting initiatives in favor of inclusion, gender equality, and equal opportunities.	<b>INGENIAS Program. 2</b> 4 female secondary school students between 13 and 18 years of age enrolled for the development of STEAM disciplines.	Through the Ingenias Program.



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### 6.2.3. SOCIAL INVESTMENT

### 6.2.3.1. Contributions

We have a procedure to manage the Company's donations and direct social investments — either through voluntary contributions, donations, volunteering hours, sponsorship, or endorsement of social and educational institutions.

With this procedure, we regulate the process of creation and approval of donations, in order to set up basic controls that keep us in line with YPF QUÍMICA's social commitment to the sustainable development of communities.

The data provided here represents the global collaborations of La Plata region.

VOLUNTARY SOCIAL	YPF QUÍMICA		
INVESTMENT	2022	2021	2020
Total Voluntary Social Investment	\$ 11.581.275	\$ 12.701.875	\$ 12.129.815
Total Donations	\$ 10.400.403	\$ 12.240.295	\$ 12.129.815
Unused materials	\$ 7.546.924	\$ 4.239.900	\$ 440.400
With associated budget	\$ 2.853.479	\$ 8.000.395	\$ 11.689.415
Total Relationships with the Community	\$ 1.180.872	\$ 461.580	\$ 0

Regarding the donation of unused materials, the following table shows the main donations by locality. These were provided to educational, medical, sports, and community institutions, according to the needs identified and required.

LA PLATA, BERISSO, AND ENSENADA	PLAZA HUINCUL - CUTRAL CO
• 30 furniture items	<ul> <li>Pipes and rods</li> </ul>
• 46 PCs, 20 notebooks, 5 screens,	<ul> <li>Monitors and flag</li> </ul>
3 keyboards, and 33 CPUs	<ul> <li>Perimeter fence</li> </ul>
<ul> <li>630 boxes of alcohol gel in 250 ml bottles</li> </ul>	
• 60 soccer balls	
<ul> <li>400 boxes with 250 ml alcohol gel containers</li> </ul>	
<ul> <li>3,000 face masks for each of them.</li> </ul>	

### 6.3. SUPPLY CHAIN DEVELOPMENT

GRI: 2-6

### 6.3.1. LOGISTICS

We guarantee the quality and availability of products thanks to our integration with YPF's refineries and natural gas processing plants

Customer portfolio is made up of industries from various fields, located in national and regional territories and in the rest of the world. Hence the importance of having an efficient supply chain that allows us to reach each customer. Thus, logistics efficiency and transportation synergies are critical to our supply chain.

METHANOL	2022		2021		2020			
SYNERGIZED VOLUME	%	% VOLUME		% VOLUME		VOLUME		
Synergized volume	52	125.220	44	97.920	37	100.130		
Volume without synergy	48	115.800	56	123.610	63	167.890		
Total	100	241.020	100	221.530	100	268.020		

Given the distances between industrial complexes and the plants of the customer portfolio, managing logistics services in the most efficient way possible is essential. Ground transportation synergies with other business units, such as methanol and fuel logistics, to ensure comprehensive logistics optimization, are taken advantage of. These synergies prevent the units from returning empty to the cargo terminal and transport products needed by the terminal.

On the other hand, since 2018, scalable methanol units were incorporated into the ground fleet, which allow the same truck to transport 21% more cargo. This contributes to generating lower greenhouse gas emissions, a lower carbon footprint and less maintenance on national routes. Currently, the methanol fleet has 24% of scalable units and incentive actions were taken for supplier companies to incorporate this type of truck.

The plan involves an increase in scalable methanol units, hoping to reach 31% by 2023.



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METHANOL LOGISTICS	2023 GOAL	2022		2021	
METHANOL LOGISTICS	2023 GOAL	%	QUANTITY	%	QUANTITY
Non-Scalable Methanol Units	69%	76	258	79	274
Scalable Methanol Units	31%	24	80	21	74
Actual CO <sub>2</sub> equiv. emissions (Scope 1)			9.633,5		11.009,8
CO <sub>2</sub> emission savings equiv (Scope 1)			727,9		271,5

Due to the implementation of scalable units for Methanol transportation during the analyzed period of 2021, 2022, 999.4 tons of CO2 equivalent, scope 1, were not released into the atmosphere. That is, a reduction of approximately 2% by 2021, and 7% by 2022.

### **MID-TERM OBJECTIVE**

- → Identifying which customers can receive scalable trucks for other products (in addition to methanol).
- → Defining the process to maximize the load of scalable trucks.

### **6.3.2. SUPPLIER MANAGEMENT**

GRI: 3-3, 204-1

The organization of the supply chain in YPF is led by the Supply Chain VP and is performed within the framework of corporate policies of Purchasing, Operational Excellence, and Risk Management. We consider our suppliers to be strategic partners, and we conduct a rigorous selection process to ensure that our relationships with them comply with the current regulations on applicable technical, tax, legal, labor, and social security aspects, as well as ethical, environmental, and social requirements included in the General Conditions of Purchase and Hiring of the Group.

Every individual who accesses the facilities must be registered as a supplier or subcontractor, as well as their subcontracted personnel, in the Contracted Resources System. This enables to have control over parameters of social, safety, working, and legal conditions of people, vehicles and equipment. According to their degree of criticality, the contracts classified as Auditable are controlled by the Registration and Control of Contracted Personnel, through the Auditor Office designated for this purpose, and in accordance with the provisions of the Instructions for the Registration and Control of Contractor Companies.

In addition to YPF's own classifications, under our particular condition of integrated business, YPF Química's suppliers are classified as follows:

#### **INTERNAL SUPPLIER COMPANIES**

- Internal supplier companies refer to other business units and companies controlled by YPF.
- The main internal supplier is the Refining Executive Management, which supplies raw materials: virgin naphtha, kerosene, butane and butene streams, and propane-propylene streams for the production of products marketed by YPF QUÍMICA.
- Other relevant internal suppliers are Logistics Executive Management, International Trade and Transportation Management, and Supply Chain VP, which provide the necessary logistics services to reach the customer portfolio located in national and regional territory, and in the rest of the world.

#### **EXTERNAL SUPPLIER COMPANIES**

- External supplier companies basically consist of storage and supply of production services, necessary to ensure product availability to the customer portfolio.
- There is product storage in national territory and in Brazil.
- This increase in storage capacity allowed to respond to external requirements, particularly in the methanol product.
- Starting in 2011, a supply of production service agreement with a company in the sector began, in order to increase the available volume of the product Linear Alkylbenzene Sulfonate (LAS) and thus be able to supply an increasing demand for this product, driven in part by an expansion plan for chemical sales in regional markets (mainly Brazil).
- Through this agreement, YPF supplies raw materials (surplus sulfur and LAB) to this company, which, after a production process, transforms it into LAS and sulfuric acid to be dispatched to YPF and the customer portfolio.
- The supplying company also supplies sulfuric acid to YPF complexes (an essential product for the water demineralization process for use in boilers, among others).



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EXTERNAL SUPPLIER COMPANIES	2022	2021
LAS volume obtained from supply	9.839 t	4.400 t
Volume of sulfuric acid received at YPF's complexes by supply	2.659 t	2.600 t

### Reduction of external methanol storage expenses in 2022

In 2020, the production of oxo-alcohols was discontinued at the Ensenada Industrial Complex. In 2021, the project to adapt three oxo-alcohol tanks to be able to store methanol began. As a result, in 2022, the CIE increased methanol capacity by 11,200 m3. In this way, it was possible to reduce the expense of methanol storage in third-party facilities by USD 3 million with an investment of USD 285 thousand.

STORAGE CAPACITY	UNIT OF MEASUREMENT	PROJECTED 2023	2022	2021
CIE (LAB, LAS, PIB, MAN, Solvents)	t	70.575	61.880	71.620
CIE + CIPH (Methanol)	t	17.860	17.860	17.860
External (LAS, PIB and Maleic Anhydride)	t	4.797	3.010	1.840
External (Methanol)	t	18.285	17.489	27.045
Total	t	111.517	102.261	105.889

Storage supplier companies are considered critical and key for meeting the requirements of the customer portfolio. We continue working to expand our external capacity by 44.61%.

### MID-AND LONG-TERM OBJECTIVES

→ Expand storage capacity in strategic points, such as Brazil, in order to be close to our customer portfolio and expand local storage capacity to ensure and improve production at our own facilities in the event of shutdowns or operational circumstances for each product.

### Suppliers' assessment

In accordance with YPF's corporate policies, every company that is part of the YPF QUÍMICA supply chain is graded before it is able to provide services or sell goods to the Company.

The criteria that define whether a supplier company is classified as critical or not, include legal aspects, economic and financial aspects, its link with the Company's production processes and its quality, safety, health and environmental management systems. These criteria include aspects such as the volume of purchases made from a supplier company and whether they provide critical or non-substitutable components for YPF's operation.

The demands increase according to the criticality levels of the contract. Then, the provision of the service is constantly monitored to ensure compliance with best practices, having as main values the protection of the integrity of people and care for the environment.

We maintain communication and information exchange with current and potential future suppliers regarding sustainability policies and related gender and environmental issues. Thus, knowledge of what each company is developing regarding these issues is obtained. We plan to incorporate, as of 2023, in the new bidding documents, an explicit line indicating what will be taken into account if the company proposes to conduct improvement actions for the benefit of the environment and sustainable development. In the 2023 assessments, we will take this topic into account and assign a weighting that will define the final grade.

In 2021, supply chain expenditures, excluding methanol, totaled nearly US\$ 1.2 million, 27% less than in 2020, while in 2022, it was nearly US\$ 2.3 million, 45% more than in 2020.

For methanol, in 2021, expenses were US\$ 5.8 million, 6% above the 2020 expense, due to additional supply chain expenses in order to cope with the scheduled methanol plant shutdown, while in 2022 expenses were US\$ 2.5 million, 53% below the 2020 expenses, due to lower methanol storage costs in Argentina (see table below).

As in previous years, YPF QUÍMICA's expenditure in the country far exceeded the one abroad, accounting for 75% of total purchases.



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YPF QUÍMICA'S PURCHASES				2021		2020	
FROM WAREHOUSING SUPPLYING COMPANIES	NUMBER OF SUPPLIER COMPANIES	%	USD	%	USD	%	USD
From Argentina	8	75	3.692.392	83	5.850.353	86	6.128.464
Methanol	1	36	1.327.090	80	4.651.183	73	4.494.700
Other Products	6	63	2.331.730	19	1.096.624	26	1.594.470
Services	1	1	33.572	2	102.546	1	39.295
Methanol from broad (Brazil)	1	25	1.243.481	17	1.177.147	14	1.013.189

### **2023 GOALS**

- → Validate/update calculated safety stocks and targets for CIE chemicals for implementation in stock reports.
- → Follow-up of the annual field audit plan for supplier companies to improve the quality of our products and services.
- → Sulfuric acid and sulfur management: search and analysis of own transportation alternatives to ensure transportation logistics for sulfur evacuation from the complex and supply of sulfuric acid from complexes in order to minimize risks of impact on production.

### MID-AND LONG-TERM CHALLENGES

- → To study the possibility of incorporating a scalable fleet for other services in order to optimize logistics costs and reduce the impact on the environment.
- → Development of new logistic alternatives for the regional market (Argentina limit excluding Brazil) in Methanol. If feasible, we will implement it in 2024/25.
- → In order to minimize operational and safety risks in sealing LAS isotanks, we will look for an alternative location in YPF facilities to perform this task in 2023/24.
- → Execution of Methanol Ventral loading dock, loading efficiency (reduction of loading times) and operational and safety improvements.
- → Evaluation of the possibility of expanding storage capacity at CIE for Maleico tablets and restricting the rental of external centers in order to reduce costs and generate fewer transfers, thus achieving a lower environmental impact.





# YPF QUÍMICA

2022 SUSTAINABILITY REPORT

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# 7.1. CORPORATE GOVERNANCE

GRI: 2-9, 2-11

As a business unit of YPF, Química's Executive Management participates in the Company's values, policies, corporate governance structure and ethics and integrity management system.

YPF has a robust corporate governance system that incorporates the highest national and international standards in this area and allows us to consolidate a responsible business in the economic, environmental and social spheres, within a framework based on transparency, integrity, diversity, and the provision of relevant and timely information to our stakeholders.

#### **Board of Directors**

Appointed by the Meeting of Shareholders at its annual meeting, the Board of Directors is the highest authority of the Company, in charge of leading and laying the foundations for its sustainable development. It is comprised of 11 regular members, including the presidency, one of whom is a woman, and nine alternate directors, three of whom are women.

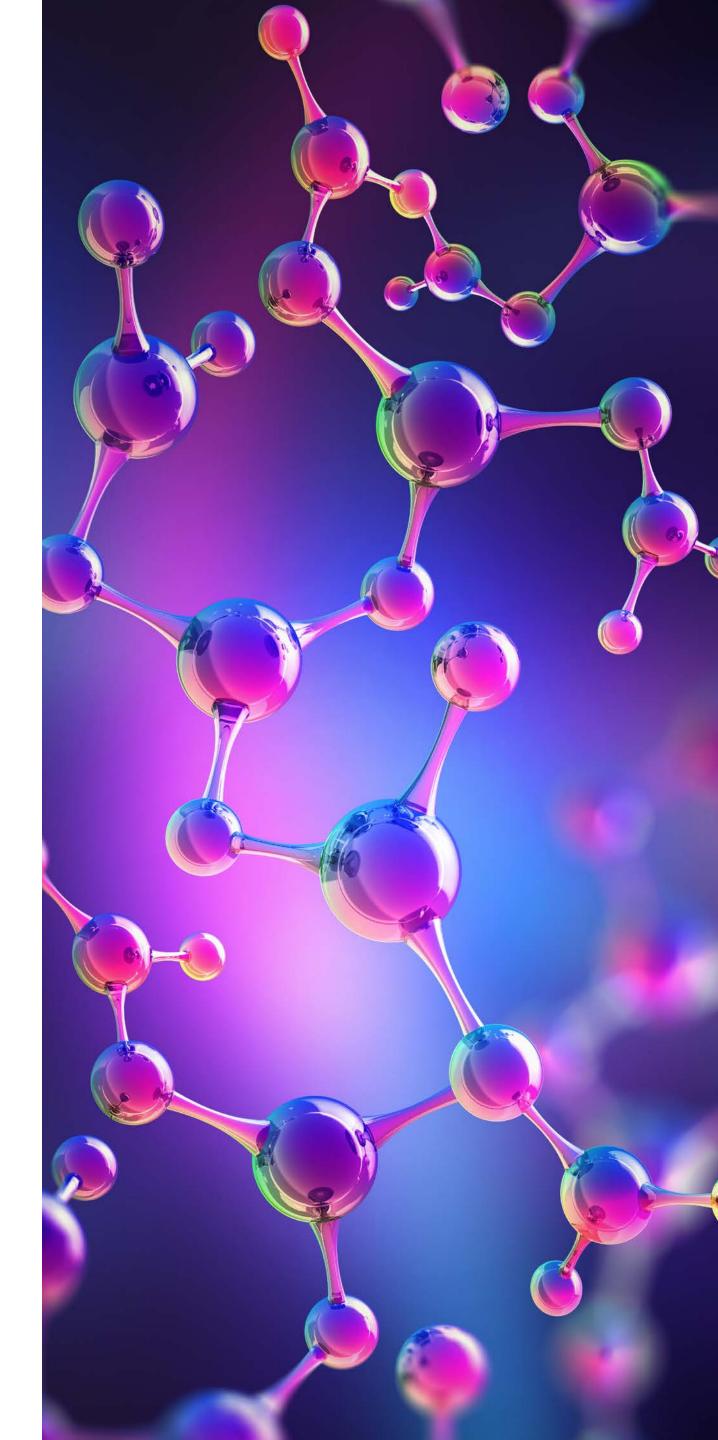
The Board of Directors meets monthly and its members hold office for one year, and may be reelected. During 2022, the average attendance was 94.6%.

The Board of Directors establishes the general business strategy and approves the plan prepared by management, taking into account environmental, social, and corporate governance aspects. It is in charge, through the Risks and Sustainability Committee, of monitoring the proper implementation of comprehensive risk management policies, including climate change, and promoting best practices in sustainability matters, as well as preparing and approving the annual and quarterly Financial Statements, the corresponding Issuance Prospectus and Form 20-F, among other functions. It supervises the implementation of the plan based on financial and non-financial indicators. In line with its internal bylaws and applica-

ble laws, its main functions are:

- → Determining and promoting corporate culture and values, ensuring that the highest ethics and integrity standards are observed in the Company's best interest.
- → Ensure a strategy inspired by the Company's purpose, aligned to its values and culture.
- → Exercising control of the Company's management, ensuring that Management takes actions focused on implementing the strategy and business plan approved by the Board of Directors.
- → Setting YPF's general strategy –inspired by its vision and mission– and approving the strategic plan developed by the Executive Management.
- → Exercising permanent supervision of the management, ensuring that the Executive Management carries out the actions aimed at the implementation of the approved strategy and business plan.
- → Periodically assessing the main issues of the Company, its impact, risks, and opportunities.
- → Appointing top executives.

The highest executive level of YPF is the Chief Executive Officer (CEO). In compliance with the Bylaws, if he/she is a member of the Board of Directors, he/she may not serve as Chairman of the Board at the same time. Reporting to the CEO are the Chief Financial Officer and the leaders of the various VPs.





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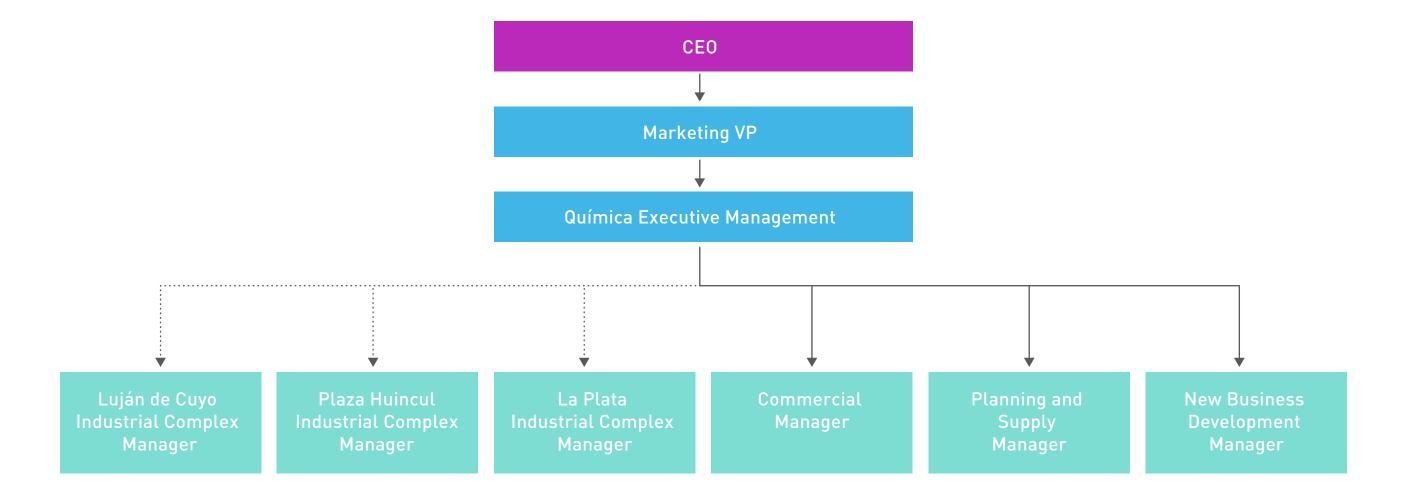
### **YPF VPs**

- → Conventional Upstream
- → Non-conventional Upstream
- → Downstream
- → Marketing
- → Gas and Energy
- → Sustainability and Operational Excellence
- → Institutional Affairs, Communications and Marketing
- → Legal Services
- → People and Culture
- → Services

### YPF QUÍMICA Executive Management

YPF QUÍMICA business unit is headed by Executive Manager Martina Azcurra and operates under the authority of the Company's Marketing VP. In addition, she is a member of the Company's Board of Directors, holding the position of Alternate Director, according to the composition as of December 31, 2022.

Química's Executive Management is divided into five main work teams: commercial, new business development, planning and supply, and the industrial complexes (Ensenada, Huincul, and Luján de Cuyo) where petrochemical products are manufactured. YPF QUÍMICA's petrochemical industrial complexes are part of the Downstream VP. Both Downstream and Marketing VPs report directly to the CEO.



Química's Executive Management chairs the weekly Química's Committee with the participation of the industrial complexes managers, the commercial manager, the business development manager, and the planning and supply manager. Its purpose is to monitor the progress of sales indicators, dispatches, and production on a weekly basis. Also update information regarding investment projects. On the other hand, Química's Committee meets monthly to review the economic results of the business.

# 7.2. ETHICS AND INTEGRITY

GRI: 2-23, 2-24, 2-25, 2-26, 2-27

### **Corporate Ethics Values**

- → We act with integrity
- $\rightarrow$  We create value
- → We give priority to safety
- → We are committed to sustainability
- → We focus on each customer
- → We value gender equality and diversity

### **Ethics and Compliance**

The Ethics and Code of Conduct and the policies and standards related to the integrity of the Company apply to all of its collabo-



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rators, Board members, affiliates, controlled companies, contractors, subcontractors, supplier companies, consultants, and the rest of the business partners that work with YPF.

Our Integrity Program and its associated guidelines and policies clearly establish ethical standards that define what is acceptable and what is not allowed at YPF. Together with the commitment to "zero tolerance" against corruption, it comprises the protection of those using the channels from the Company to file a complaint in good faith, the prohibition of making political contributions, guidelines about the attitude expected from leaders, measures for confidentiality and data protection, and a number of guidelines about how to interact with the public sector and business partners, reliable records and reporting, undue influence for personal benefit, protection of customer portfolio privacy, responsible advertising, use of social media and maintenance of a safe workplace, free of discrimination, mistreatment, and any other form of harassment or abuse, among others.

## 7.3. ALLIANCES

GRI: 2-28

YPF Química participates in the following organizations, in which it plays a leading role in some of them and is involved and works for the sustainable development of the petrochemical industry. The entities in which it plays a significant role are listed below.

	CH00SE REASONS AS TO W	/HYITIS CONSIDERED TO PLAY	A SIGNIFICANT ROLE	
ENTITY NAME	HOLDS A POSITION IN A GOVERNING BODY	WORKS ON PROJECTS OR COMMITTEES	PROVIDES SIGNIFICANT FUNDING IN ADDITION TO MEMBERSHIP FEES	MEMBERSHIP IS CONSIDERED STRATEGIC FOR THE COMPANY'S ACTIVITIES
Petrochemical Institute (IPA)	X	X	NO	YES
Latin American Petrochemical Association (APLA)	X	X	NO	YES
Chamber of the Chemical and Petrochemical Industry (CIQyP)	X	X	NO	YES

YPF QUÍMICA is focused on bringing new professionals to the Chemical Industry to be "protagonists" and conducts several actions to achieve it:

- → The Company teaches classes in optional programs on Petrochemical Industry, its presence in the country, the details of the production processes of each product, marketing, the markets in which we participate, projects we have for the future and sustainability both at the Universidad Nacional de La Plata and the Universidad Tecnológica Nacional.
- → The Company participates and lectures in sector organizations such as the Argentine Petrochemical Institute (IPA), the Chamber of the Chemical and Petrochemical Industry (CIQyP) and the Latin American Petrochemical Association (APLA); it strengthens bonds in the sector and conducts joint actions to expand training, the vision of the future and relevant issues for our industry.
- → The Company participates and promotes the industry through the Energy space, with specific talks to visiting groups from both universities and high schools in the region, showing what chemistry does within the Company

to provide them with tools for choosing their careers in the future.

- → In future actions, we are designing an open innovation contest to attract universities, entrepreneurs, SMEs, etc., in order to capture innovative ideas from the market to promote the Petrochemical Industry. This action will be conducted together with Fundación YPF.
- → Every year, we lecture Young Professionals who join the Company, so that they can learn about our business, its structure and its vision for the future; we invite them to be part of this challenge.



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This report is not intended to and will not constitute an offer to sell or a request of an offer to sell or a request of an offer to buy, any security, or a request of any vote of approval, nor will any sale be made of any securities in any jurisdiction in which such offer, request, or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction.

### Statements for the Future

Certain matters discussed in this report include statements for the future that are subject to risks and uncertainties. We caution those who read this Report that these do not constitute any guarantee of our future actions or developments, which may differ materially from those described or recommended herein. We undertake no duty to provide updates to these statements for the future after the date of this report, to reflect events or changes in circumstances or changes in expectations, or the occurrence of expected events. Links to websites here are for informational purposes only.

### **ABOUT THIS REPORT**

This Sustainability Report corresponds to YPF QUÍMICA. YPF Business Unit

YPF CUIT: 30-54668997-9

Headquarters: Macacha Güemes 515,

Ciudad Autónoma de Buenos Aires.

República Argentina.

Contact for inquiries about this Report and Website: https://quimica.ypf.com/index.html

We have submitted the 2<sup>nd</sup> Sustainability Report of YPF QUÍMI-CA, a business unit belonging to YPF, which details the performance in the economic, social, and environmental fields during the period from January 1st to December 31, 2022. Our reporting cycle is annual, so the third sustainability report will be prepared for the 2023 period.

This report was prepared based on the GRI (Global Reporting Initiative) Standards. Specific indicators for the "Chemical Substances" industry of the Sustainability Accounting Standard Board (SASB) organization were also used.

The operational limits of the information provided in this report correspond to the Ensenada Industrial Complex (CIE), to the Methanol unit belonging to the Plaza Huincul Industrial Complex (CIPH), and to YPF Química's Executive Management.

The Ensenada Industrial Complex (CIE) of YPF QUÍMICA is the largest petrochemical complex in the country and it receives raw materials from the La Plata Industrial Complex (CILP) on a daily basis, which are necessary for the production of different petrochemical products. These include aromatic and aliphatic solvents, basic chemicals, surfactants, polymers and maleic anhydride, the latter two being products that mainly supply the international market. In addition, the CIE generates hydrogen and high-octane value components used to produce YPF's fuels in the country, improving their quality and performance.

Also, YPF QUÍMICA uses natural gas as raw material to produce methanol at the Plaza Huincul Industrial Complex (CIPH).

The corporate policies and the main strategic guidelines of YPF QUÍMICA are defined by YPF. For this reason, the information contained in this Sustainability Report must be read according to this context.

To learn more about the business and sustainability strategy of YPF, we suggest referring to the following information.

Additionally, YPF QUÍMICA markets propylene produced at La Plata Industrial Complex (CILP) and Luján de Cuyo Industrial Complex (CILC). The impact of this product is presented in the economic dimension.

- → YPF Sustainability Strategy https://sustentabilidad.ypf.com/
- → YPF Sustainability Reports
  https://sustentabilidad.ypf.com/#reportes
- → YPF Corporate Information https://www.ypf.com/Paginas/home.aspx



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		,													
		YPF QUÍMICA			CIE					METANOL			HEADQUARTERS QUÍMICA		
•		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020		
CHAPTER 2: YPF QUÍMICA. INTELLIGENT CHEMIS	STRY FOR A SUSTAI	NABLE ENERG	Y TRANSITIO	N											
GRI 2-6 Activities, Value Chain and Other Business Relationships	Ton / Year	1.908.117	1.942.717	1.574.987											
Production Volumes by Segment	Ton / Year	1.020.599	1.034.632	820.090											
Specialties	Ton / Year	69.894	79.718	69.473											
Alcohols	Ton / Year	280.763	324.580	167.809											
Basic Solvents and Chemicals	Ton / Year	536.861	503.787	517.615											
Olefins	Ton / Year	133.081	126.547	65.193											
Total Sales in USD	Millions USD	3.844	3.628	2.735											
Sales to Domestic Market Third Parties in USD	Millions USD	589	545	244											
Sales to Export Market Third Parties in USD	Millions USD	133	126	85											
Internal Sales within YPF in USD	Millions USD	584	401	286											
Total Sales in Tons	Thousands of Tons	1.268	1.277	1.059											
Sales to Third Parties Domestic Market in Tons	Thousands of Tons	619	593	407											
Sales to Third Parties Export Market in Tons	Thousands of Tons	102	176	137											
Internal Sales within YPF in Tons	Thousands of Tons	547	508	515											
Total Sales in %	%	1	1	1											
% Sales to Third Parties - Domestic Market	%	49,0	46,0	38,0											
% Sales to Third Parties - Export Market	%	8,0	14,0	13,0											
% Internal Sales within YPF	%	43,0	40,0	49,0											

It includes propylene production at Luján de Cuyo Industrial Complex (CILC), which is included in the economic performance of this report.



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
CHAPTER 3: CLIMATE ACTION													
GRI 302- 1 (2016) Energy Consumption WITHIN the Organization	GJ	15.440.948	17.206.145	13.233.204	10.774.125	12.160.059	10.289.994	4.666.823	5.046.086	2.943.211			
Renewable source fuel consumption	GJ	0	0	0	0	0	0	0	0	0			
NON-renewable source fuel consumption	GJ	13.997.951	15.586.391	12.039.470	9.433.405	10.839.993	9.277.900	4.564.546	4.746.398	2.761.571			
Renewable source power consumption	GJ	165.201	234.032	155.462	165.201	234.032	155.462	0	0	0			
Non-renewable source power consumption	GJ	559.708	638.243	546.529	457.431	338.555	364.889	102.277	299.688	181.640			
Steam Consumption	GJ	718.087	747.479	491.743	718.087	747.479	491.743	0	0	0			
302- 3 (2016) Energy Intensity	GJ/tn	12,8	13,50	11,90	11,7	12,7	11,0	16,7	15,50	17,50			
% Renewable Energy Consumption versus the Total Power Consumption	%	22,8	26,8	22,1	26,5	40,9	29,9	0	0	0			
GRI 305- 1 Direct (Scope 1) GHG Emissions	TnCO2 eq	696.422,71	624.374,63	529.396,00	503.856,57	450.740,00	428.086,00	185.418,86	173.634,63	101.310,00			
Set Combustion	TnCO2	685.938,08	565.601,00	524.256,00	500.519,10	446.328,00	424.302,00	178.088,42	166.018,57	99.954,00			
Fugitive CH <sub>4</sub>	TnCO2 eq	209,49	549,00	735,00	148,87	520,00	661,00	244,00	175,00	74,00			
$N_2^0$	TnCO2 eq	10.275,14	4.049,00	4.405,00	3.188,60	3.892,00	3.123,00	7.086,44	7.441,06	1.282,00			
GRI 305-2 Energy Indirect (Scope 2) GHG Emissions	TnCO2 eq	155.552,74	138.129,50	115.958,83	137.300,51	118.818,90	98.273,83	18.252,23	19.310,60	17.685,00			
Power	TnCO2 eq	111.746,26	92.298,71	85.935,51	93.494,03	72.988,11	68.250,51	18.252,23	19.310,60	17.685,00			
Steam	TnCO2 eq	43.806,48	45.830,79	30.023,32	43.806,48	45.830,79	30.023,32	-	-	-			
GRI 305-4 GHG emissions Intensity	Tn CO2eq/ Production units	0,70	0,60	0,58	0,68	0,64	0,58	0,73	0,59	0,64			
ntensity of Scope 1 GHG emissions	Tn CO2eq/ Production units	0,57	0,49	0,48	0,55	0,47	0,46	0,66	0,53	0,60			
ntensity of Scope 2 GHG emissions	Tn CO2eq/ Production units	0,13	0,11	0,10	0,13	0,17	0,12	0,07	0,06	0,04			
CHAPTER 4: SUSTAINABLE PRODUCTION													
GRI 305-7 Other Significant-Air Emissions													
NOx	Tn	938.88	1.507.00	1.067.00	866,59	1.199.00	904.00	72.29	308.00	163,00			

For the calculation of emission intensities, production values of final products and by-products are used, considering also self-consumption, i.e., those products used as raw material by YPF QUÍMICA. Values used are: 2022 = 1,204 kt, 2021 = 1,278 kT, and 2020 = 1,108 kt.



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
SOx	Tn	61,11	118,00	129,00	61,11	118,00	129,00	-	-	-			
Volatile organic compounds (VOC)	Tn	575,91	323,00	289,00	404,14	162,00	203,00	171,77	161,00	86,00			
Particles (PM)	Tn	43,17	32,00	30,00	42,39	30,00	27,00	0,78	2,00	3,00			
CO	Tn	2.903,47	1.856,00	2.275,00	2.777,91	1.823,00	2.266,00	125,56	33,00	9,00			
GRI 306 - 3 Generated Waste	Metric Tons	3.821,97	2.710,00	2.132,00	3.137,37	2.569,00	1.940,00	684,60	141,00	192,00			
Hazardous	Metric Tons	3.301,07	2.230,00	1.690,00	2.736,91	2.169,00	1.563,00	564,16	61,00	127,00			
Catalyst	Metric Tons	31,30	68,00	367,00	31,30	68,00	367,00	-	-	-			
Caustic soda	Metric Tons	980,10	635,00	48,00	980,10	635,00	48,00	-	-	-			
Mud from effluent pools	Metric Tons	593,89	1.120,00	904,00	593,89	1.120,00	904,00	-	-	-			
Miscellaneous contaminated	Metric Tons	299,85	266,00	265,00	265,16	251,00	207,00	34,69	15,00	58,00			
Water with HC	Metric Tons	528,61	40,00	69,00	-	-	-	528,61	40,00	69,00			
Other Hazardous Waste	Metric Tons	867,32	101,00	37,00	866,46	95,00	37,00	0,86	6,00	-			
Non-Hazardous	Metric Tons	520,90	480,00	442,00	400,46	400,00	377,00	120,44	80,00	65,00			
Domiciliary	Metric Tons	110,61	115,00	92,00	100,38	105,00	78,00	10,23	10,00	14,00			
Scrap	Metric Tons	307,91	288,00	253,00	211,58	233,00	211,00	96,33	55,00	42,00			
Other Non-Hazardous Waste	Metric Tons	102,39	77,00	97,00	88,50	62,00	88,00	13,89	15,00	9,00			
GRI 306-4 Waste Not Intended for Disposal	Metric Tons	426,40	365,00	350,00	326,08	295,00	299,00	100,32	70,00	51,00			
Based on composition													
Hazardous													
Catalyst	Metric Tons	-	-	-									
Caustic soda	Metric Tons	-	-	-									
Mud from effluent pools	Metric Tons	26,00	-	-	26,00								
Miscellaneous contaminated	Metric Tons	-	-	-									
Water with HC	Metric Tons	-	-	-									



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
Other Hazardous Waste	Metric Tons	-	-	-						-			
Non-Hazardous													
Domiciliary	Metric Tons	0,12	-	-				0,12					
Scrap	Metric Tons	307,91	288,00	253,00	211,58	233,00	211,00	96,33	55,00	42,00			
Other Non-Hazardous Waste	Metric Tons	92,37	77,00	97,00	88,50	62,00	88,00	3,87	15,00	9,00			
Hazardous Waste According to Valorization Operation		26,00	-	-	26,00	-	-	-	-	-			
Recycled	Metric Tons	26,00	-	-	26,00								
Non-Hazardous Waste According to Valorization Operation	Metric Tons	400,41	365,00	350,00	300,09	295,00	299,00	100,32	70,00	51,00			
Preparation for re-usage	Metric Tons	2,97	-	-		-	-	2,97	-				
Recycled	Metric Tons	397,32	365,00	350,00	300,09	295,00	299,00	97,23	70,00	51,00			
Other valorization operations:	Metric Tons	0,12	-	-				0,12					
GRI 306-5 Waste Intended for Disposal	Metric Tons	3.395,58	2.345,00	1.782,00	2.811,29	2.274,00	1.641,00	584,29	71,00	141,00			
Based on composition													
Hazardous													
Catalyst	Metric Tons	31,30	68,00	367,00	31,30	68,00	367,00	-	-	-			
Caustic soda	Metric Tons	980,10	635,00	48,00	980,10	635,00	48,00	-	-	-			
Mud from effluent pools	Metric Tons	567,89	1.120,00	904,00	567,89	1.120,00	904,00	-	-	-			
Miscellaneous contaminated	Metric Tons	299,85	266,00	265,00	265,16	251,00	207,00	34,69	15,00	58,00			
Water with HC	Metric Tons	528,61	40,00	69,00	-	-	-	528,61	40,00	69,00			
Other Hazardous Waste	Metric Tons	867,32	101,00	37,00	866,46	95,00	37,00	0,86	6,00	-			
Non-Hazardous													
Domiciliary	Metric Tons	110,49	115,00	92,00	100,38	105,00	78,00	10,11	10,00	14,00			
Scrap	Metric Tons	-	-	-									



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
Other Non-Hazardous Waste	Metric Tons	10,02	-	-				10,02					
Hazardous Waste According to Disposal Operation	Metric Tons	3.275,13	2.230,00	1.690,00	2.710,95	2.169,00	1.563,00	564,18	61,00	127,00			
Incineration (with energy recovery)	Metric Tons	-	-	-									
Incineration (without energy recovery)	Metric Tons	1.279,96	976,00	324,00	1.245,26	957,00	255,00	34,70	19,00	69,00			
Final disposal in landfill	Metric Tons	867,33	1.157,00	1.308,00	866,46	1.157,00	1.308,00	0,87	-				
Other disposal operations	Metric Tons	1.127,84	97,00	58,00	599,23	55,00		528,61	42,00	58,00			
Non-hazardous Waste by Disposal Method	Metric Tons	120,78	115,00	92,00	100,38	105,00	78,00	20,40	10,00	14,00			
Incineration (with energy recovery)	Metric Tons	-	-	-				-					
Incineration (without energy recovery)	Metric Tons	-	-	-				-					
Transfer to landfill	Metric Tons	100,38	105,00	78,00	100,38	105,00	78,00	-					
Other disposal operations	Metric Tons	20,40	10,00	14,00				20,40	10,00	14,00			
GRI 306-3 (2016) SPILLS													
Number of HC 0-1 bbl Spills affecting the environment, #	Number	-	4,00	-	-	3,00	-	-	1,00	-			
Vol of HC affecting ground 0-1 bbl, t	Metric Tons	-	0,16	-	-	0,16	-	-	-	-			
Tanks	Number	177,00	117,00	-	172,00	112,00		5,00	5,00				
Priority risk tanks	Number	-	9,00	-		9,00		-	-				
GRI 303-3 Extracted Water	kt	4.083,96	4.240,00	4.265,00	3.238,86	3.430,00	3.580,00	845,10	810,00	685,00			
Surface Water	kt	3.159,87	3.305,00	3.473,00	3.137,87	3.305,00	3.473,00	22,00	-	-			
Water collected from the public water supply	kt	923,99	935,00	792,00	100,99	125,00	107,00	823,00	810,00	685,00			
Intensity of water extraction	kt/kt produced	6,52	6,09	7,87	3,51	3,60	3,81	3,01	2,49	4,06			
GRI 303-4 Discharged Water	kt	1.792,27	1.946,00	2.375,00	1.456,37	1.635,00	2.110,00	335,90	311,00	265,00			
Surface waters	kt	1.792,27	1.926,00	2.316,00	1.456,37	1.635,00	2.060,00	335,90	291,00	256,00			
Reused for irrigation	kt	-	20,00	59,00			50,00	-	20,00	9,00			
GRI 303-5 Water Consumption (*)	kt	2.291,69	2.294,00	1.890,00	1.782,49	1.795,00	1.470,00	509,20	499,00	420,00			



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020			
Intensity of water consumption	kt/kt produced	1,90	1,79	1,71	1,93	1,88	1,62	1,81	1,54	2,20						
SASB RT-CH-540a.1 Operational Safety, Preparedn	ess and Respons	e to Emerge	encies													
Total Process Safety Events	Number	4,00	4,00	6,00												
PSIC Tier 1 Incidents	Number	1,00	2,00	3,00												
PSIC Tier 2 Incidents	Number	3,00	2,00	3,00												
Total PSIC Tier 1 Rate	Rate	0,29	0,60	0,90												
Total PSIC Tier 2 Rate	Rate	0,87	0,60	0,90												
CHAPTER 5: PEOPLE																
GRI 403-8 Coverage of Health Management System	at Work															
Organization Employees																
Total number of organization employees	Number of workers	392	405	413												
Covered by said system	Number of employees	392	405	413												
Covered by said system, and subject to internal audit	Number of employees	392	405	413												
Covered by said system, and subject to internal audit or certification by third party	Number of employees	392	405	413												
% Covered by said system	%	100	100	100												
% Covered by said system, and subject to internal audit	%	100	100	100												
% Covered by said system, and subject to internal audit or certification by third party	%	100	100	100												
Workers who are not employees and whose work or	workplace is cor	ntrolled by t	he organizatio	n												
Total number of organization workers	Number of workers	317	335	289												
Covered by said system	Number of workers	317	335	289												



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020		
Covered by said system, and subject to internal audit	Number of workers	317	335	289											
Covered by said system, and subject to internal audit or certification by third party	Number of workers	317	335	289											
% Covered by said system	%	100	100	100											
% Covered by said system, and subject to internal audit	%	100	100	100											
% covered by said system, and subject to internal audit or certification by third party	%	100	100	100											
GRI 403-8 Coverage by the Safety Management Syst	tem at Work														
Organization Employees															
Total number of organization employees	Total hours worked	2.476.001	1.095.284	1.106.735											
Covered by said system	Total hours worked	2.476.001	1.095.284	1.106.735											
Covered by said system, and subject to internal audit	Total hours worked														
Covered by said system, and subject to internal audit or certification by third party	Total hours worked														
% Covered by said system	%	100	100	100											
% Covered by said system, and subject to internal audit	%	0	0	0											
% Covered by said system, and subject to internal audit or certification by third party	%	0	0	0											
Workers who are not employees and whose work or	workplace is cor	itrolled by the	organization												
Total number of organization workers	Total hours worked	986.534	2.414.606	2.137.786											
Covered by said system	Total hours worked	986.534	2.414.606	2.137.786											
Covered by said system, and subject to internal audit	Total hours worked														



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
Covered by said system, and subject to internal audit or certification by third party	Total hours worked												
% Covered by said system	%	100	100	100									
% Covered by said system, and subject to internal audit	%	0	0	0									
% Covered by said system, and subject to internal audit or certification by third party	%	0	0	0									
GRI 403-9 Injuries due to work-related accidents													
All personnel (Own and Contracted)													
Accident Frequency Rate (AFR) - total (LTIFR)	Rate	0,28	0,28	0,62									
Accidents with reported loss	Number	1	1	2									
Hours worked	Millions of HH	3,46	3,51	3,24									
Organization personnel (Own personnel)													
Accident Frequency Rate (AFR) - total (LTIFR)	Rate	0	-	0,90									
Accidents with reported loss	Number	0	-	1									
Hours worked	Millions of HH	2,48	1,10	1,11									
Deaths	Number	0	-	-									
Injuries due to work-related accidents with major consequences	Number	0	-	-									
Injuries due to registered work-related accidents	Number	1	-	1,00									
Basis for calculation of hours worked	Hours	1.000.000	1.000.000	1.000.000									
Workers who are not employees, but whose work	or workplace is con	ntrolled by the	organization	(Hired person	nel)								
Accident Frequency Rate (AFR) - total (LTIFR) (Contracted employees)	Rate	1,01	0,41	0,47									
Accidents with reported loss	Number	1	1,00	1,00									
Hours worked	Millions of HH	0,99	2,41	2,14									
Deaths	Number	-	-	-									



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Injuries due to work-related accidents with major consequences	Number	1,00	-	-									
Injuries due to registered work-related accidents	Number	3,00	1,00	1,00									
(*) Basis for calculation of hours worked	Hours	1.000.000	1.000.000	1.000.000									
GRI 403-10 Work-related Ailments and Illnesses													
Organization Employees													
Number of deaths caused by a work- related ailment or illness	Number	0	1	0									
Number of registered cases of work- related ailments and illness	Number	16	41	19									
Workers who are not employees, but whose work o	or workplace is c	ontrolled by the	organization										
Number of deaths caused by a work- related ailment or illness	Number	0	0	0									
Number of registered cases of work- related ailments and illness	Number	N/A	0	0									
GRI 2.7 Employees													
Total Number of Own Personnel at the End of the Period	Number	300	305	299	235	240	236	33	34	33	32	31	30
Women	Number	20	20	20	6	7	7	2	2	2	12	11	11
Male	Number	280	285	279	229	233	229	31	32	31	20	20	19
Number of Employees according to Work Contract													
Full-time employees	Number	299	305	299	235	240	236	33	34	33	31	31	30
Temporary employees	Number	1	0	0	0	0	0	0	0	0	1	0	0
Employees with non-guaranteed work hours	Number	0	0	0	0	0	0	0	0	0	0	0	0
Women													
Full-time Employees	Number	20	20	20	6	7	7	2	2	2	12	11	11
Temporary Employees	Number	0						0					



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
Employees with non-guaranteed work hours	Number	0						0					
Man													
Full-time Employees	Number	279	285	279	229	233	229	31	32	31	19	20	19
Temporary Employees	Number	1						0			1		
Employees with non-guaranteed work hours	Number	0						0					
Employees by Region													
Local (La Plata / Plaza Huincul)	Number	285	289	280	235	240	236	33	34	33	17	15	11
Rest of the country (Buenos Aires City)	Number	12	13	16	0	0	0	0			12	13	16
Other Countries (Brazil)	Number	3	3	3	0	0	0	0			3	3	3
Women													
Local (La Plata / Plaza Huincul)	Number	16			6			2			8		
Rest of the country (Buenos Aires City)	Number	3						0			3		
Other Countries (Brazil)	Number	1						0			1		
Men													
Local (La Plata / Plaza Huincul)	Number	269			229			31			9		
Rest of the country (Buenos Aires City)	Number	9						0			9		
Other Countries (Brazil)	Number	2						0			2		
Number According to Type of Work Contract													
Full-time	Number	300			235			33			32		
Part-time	Number	0			0			0			0		
Woman	Number												
Full-time	Number	20			6			2			12		
Part-time	Number	0						0					
Man	Number												



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Full-time	Number	280			229			31			20		
Part-time	Number							0					
GRI 2.8 Workers Who are Not Employees (Contra	acted Personnel												
Total number of contracted personnel	Number	79	96	112	78	86	101	1	1	11	0	9	0
Women	Number	0	2	5	0	2	3	0	0	2	0	0	0
Male	Number	79	94	107	78	84	98	1	1	9	0	9	0
GRI 2.30 Percentage of Employees Covered by Collective Bargaining Agreements	%	100	100	100	100	100	100	100	100	100	100	100	100
GRI 405-1 Employee Diversity													
Number of Employees According to Work Catego	ory												
Executives	Number	1	1	1	0	0	0	0			1	1	1
Managers	Number	10	10	8	1	1	0	0			9	9	8
Heads and Coordinators	Number	11	22	8	5	4	4	1	1	1	5	17	3
Analysts	Number	32	20	30	17	16	11	1	1	1	14	3	18
Under agreement	Number	246	252	252	212	219	221	31	32	31	3	1	0
Women													
Executives	Number	1						0			1		
Managers	Number	2						0			2		
Heads and Coordinators	Number	6			3			1			2		
Analysts	Number	8			2			0			6		
Under agreement	Number	3			1			1			1		
Men													
Executives	Number	0						0					
Managers	Number	8			1			0			7		
Heads and Coordinators	Number	5			2			0			3		



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
Analysts	Number	24			15			1			8		
Under agreement	Number	243			211			30			2		
GRI 2.8. Workers Who are not employees, but whose work is controlled by the organization	Number	41						1			40		
Non-employee women workers	Number	1						0			1		
Non-employee men workers	Number	40	1	39									
GRI 401-1 New employees contracted and employ	yee turnover												
Total number of new employees contracted	Number	11	20	4	9	17	4	0	1	0	2	2	0
Women		0	2	1	0	1	1	0			0	1	0
Male		11	18	3	9	16	3	0	1		2	1	0
Rate of new personnel contracted													
Women		0%	10%	5%	0%	14%	14%	0%	0%	0%	0	9%	0%
Male		4%	6%	1%	4%	7%	1%	0%	3%	0%	0	5%	0%
Total number of new contracts by age group													
Under 30 years old	Number	6			6			0			0		
Between 30 and 50 years old	Number	4			3			0			1		
Over 50 years old.	Number	1			0			0			1		
Woman													
Under 30 years old	Number	0			0			0			0		
Between 30 and 50 years old	Number	0			0			0			0		
Over 50 years old.	Number	0			0			0			0		
Man													
Under 30 years old	Number	6			6			0			0		
Between 30 and 50 years old	Number	4			3			0			1		
Over 50 years old.	Number	1			0			0			1		



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
Rate of new contracts by age group													
Under 30 years old	%	2											
Between 30 and 50 years old	%	1											
Over 50 years old.	%	0											
Woman													
Under 30 years old	%	0			0	0		0					
Between 30 and 50 years old	%	0			0	0		0					
Over 50 years old.	%	0			0	0		0					
Man													
Under 30 years old	%	2			3	0		0					
Between 30 and 50 years old	%	1			1	0		0					
Over 50 years old.	%	0			0	0		1					
Percentage of vacant positions filled by in-house candidates												38%	<b>75</b> %
Total number of employee turnover (employees who left)	Number	15	14	18	12	13	15	1	0	0	2	1	3
Woman	Number	2	0	1	1	0	0	-	0	0	1	0	1
Man	Number	13	14	17	11	13	15	1	0	0	1	1	2
Rate of employee turnover (employees who left)	%												
Woman	%	10	0	5	17	0	0%	0	0	0	8	0%	9%
Man	%	5	5	6	5	6	7%	3	0	0	5	5%	11%
Number of employees turnover (employees who left) according to age group	Number												
Under 30 years old	Number	1			1			0			0		
Between 30 and 50 years old	Number	7			6			0			1		



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
Over 50 years old.	Number	7			5			1			1		
Woman													
Under 30 years old	Number	1			1			0			0		
Between 30 and 50 years old	Number	1			0			0			1		
Over 50 years old.	Number	0			0			0			0		
Man													
Under 30 years old	Number	0			0			0			0		
Between 30 and 50 years old	Number	6			6			0			0		
Over 50 years old.	Number	7			5			1			1		
Rate of employee turnover by age group													
Under 30 years old	%	0			0			0			0		
Between 30 and 50 years old	%	2			3			0			3		
Over 50 years old.	%	2			2			3			3		
Woman													
Under 30 years old	%	5			17			0			0		
Between 30 and 50 years old	%	5			0			0			8		
Over 50 years old.	%	0			0			0			0		
Man													
Under 30 years old	%	0			0			0			0		
Between 30 and 50 years old	%	2			3			0			0		
Over 50 years old.	%	3			2			3			5		
GRI 401-3 Parental Leave													
Number of employees with right to parental leave	Number	9	0	0	7	0	0	0	0	0	2	0	0
Number of employees who took parental leave	Number	3	11	12	1	8	11	0	1	0	2	2	1



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
Number of employees who returned after their leave	Number	3	11	12	1	8	11	0	1	0	2	2	1
Number of employees who returned after their leave and continue as employees after 12 months (retention)	Number	9			7			0			2		
Employee return rate	%	100			100			N/A			100		
Employee Retention Rate	%	82			88			0			100		
Woman													
Number of employees with right to parental leave	Number	3			1			0			2		
Number of employees who took parental leave	Number	3	4	1	1	1		0	1		2	2	1
Number of employees who returned after their leave	Number	3	4	1	1	1		0	1		2	2	1
Number of employees who returned after their leave and continue as employees after 12 months (retention)	Number	3			1			0			2		
Employee return rate	%	100	100	100	100	100	N/A	N/A	100	N/A	100	100	100
Employee Retention Rate	%	75			100			0			100		
Man													
Number of employees with right to parental leave	Number	6			6			0			0		
Number of employees who took parental leave	Number	0	7	11	0	7	11	0	0	0	0	0	0
Number of employees who returned after their leave	Number	0	7	11	0	7	11	0	0	0	0	0	0
Number of employees who returned after their leave and continue as employees after 12 months (retention)	Number	6	0	0	6	0	0	0	0	0	0	0	0
Employee return rate	%	N/A	100%	100%	N/A	100%	100%	N/A	N/A	N/A	N/A	N/A	N/A
Employee Retention Rate	%	86			86			N/A	N/A	N/A	N/A	N/A	N/A
GRI 202-1 Ratio of standard initial salary category ve	ersus legal min	imum salary											
Women													
Male													



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
(*) Gender according to own employees statements													
GRI 404-1 Average training hours per year by emp	loyee												
Total number of training hours for own employees (employees)	Hours	1.271	1.381	2.114	0	802	1722	0	252	247	0	327	145
Woman		398	410	120		241	57		22	11		147	52
Male		873	971	1.994		561	1.665		230	236		180	93
Total average training hours for own employees	Hs/Employee	4,24	4,53	7,07	0	3,34	7,30	0	7,41	7,48	0	10,55	4,83
Woman		19,90	20,50	6,00	0	34,43	8,14	0	11,00	5,50	0	13,36	4,73
Male		3,12	3,41	7,15	0	2,41	7,27	0	7,19	7,61	0	9,00	4,89
Average training expenses	USD/hour	USD 125,76	USD 51,39	USD 13,00		USD 88,45	USD 15,96	•	USD 281,49	USD 111,26		USD 216,93	USD 189,52
Total Number of Hours According to Work Categor	y (i.e. Director, Man	nager, Assistant	t, etc.)										
Executives	Hours	0											
Managers	Hours	158											
Heads and Coordinators	Hours	298											
Analysts	Hours	207											
Under agreement	Hours	608											
Woman													
Executives	Hours	0											
Managers	Hours	99											
Heads and Coordinators	Hours	181											
Analysts	Hours	93											
Under agreement	Hours	25											
Man													
Executives	Hours	0											
Managers	Hours	59											



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
Heads and Coordinators	Hours	117											
Analysts	Hours	114											
Under agreement	Hours	583											
Average Total Hours According to Work Cate	gory (i.e. Director, Manag	er,Assistan	t, etc.)										
Executives	Hs/Employee	0											
Managers	Hs/Employee	16											
Heads and Coordinators	Hs/Employee	23											
Analysts	Hs/Employee	7											
Under agreement	Hs/Employee	2											
Woman													
Executives	Hs/Employee	0											
Managers	Hs/Employee	50											
Heads and Coordinators	Hs/Employee	36											
Analysts	Hs/Employee	10											
Under agreement	Hs/Employee	8											
Man													
Executives	Hs/Employee	0											
Managers	Hs/Employee	7											
Heads and Coordinators	Hs/Employee	15											
Analysts	Hs/Employee	5											
Under agreement	Hs/Employee	2											
404-3 Employees who receive regular perfor	rmance and professional o	developmen	t reviews										
Percentage of employees who have received performance and professional development		100	100	95									



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		2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
By job category													
Executives	%	100	100	100									
Managers	%	100	100	89									
Heads and Coordinators	%	100	100	100									
Analysts	%	100	100	100									
Under agreement	%	100	100	88									
Woman													
Executives	%	100	100										
Managers	%	100	100										
Heads and Coordinators	%	100	100										
Analysts	%	100	100										
Under agreement	%	100	100										
Man													
Executives													
Managers	%	100	100										
Heads and Coordinators	%	100	100										
Analysts	%	100	100										
Under agreement	%	100	100										
CHAPTER 6: SHARED SOCIAL VALUE													
GRI 2-6 Activities, Value Chain and Other Business F	Relationships												
Methanol synergized volume													
Synergized volume	Volume	125.220,00	97.920,00	100.130,00									
Volume without synergy	Volume	115.800,00	123.610,00	167.890,00									
% Methanol synergized volume	%	100	100	100									



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Synergized volume	%	52	44	37									
Volume without synergy	%	48	56	63									
GRI 204-1 Expense ratio for local suppliers													
Number of companies	Number	9											
From Argentina	Number	8											
Methanol	Number	1											
Other products	Number	6											
Services	Number	1											
Methanol from abroad (Brazil)	Number	1											
Purchases in USD	USD	4.935.873	7.027.500	7.141.653									
From Argentina	USD	3.692.392	5.850.353	6.128.464									
Methanol	USD	1.327.090	4.651.183	4.494.700									
Other products	USD	2.331.730	1.096.624	1.594.470									
Services	USD	33.572	102.546	39.295									
Methanol from abroad (Brazil)	USD	1.243.481	1.177.147	1.013.189									
Purchases in %	%	100	100	100									
From Argentina	%	75	83	86									
Methanol	%	36	80	73%									
Other products	%	63	19	26									
Services	%	1	2	1									
Methanol from abroad (Brazil)	%	25	17	14									



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**BUSINESS PROFILE** 

VALUE CHAIN AND BUSINESS SEGMENTS

- 01. COMMITMENT WITH SUSTAINABILITY
- 02. YPF QUÍMICA.
  INTELLIGENT CHEMISTRY
  FOR A SUSTAINABLE
  ENERGY TRANSITION
- 03. CLIMATE ACTION
- 04. SUSTAINABLE PRODUCTION
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GRI, SASB INDEXES

## **GRI, SASB INDEXES**

YPF QUÍMICA presented the information referred to in this GRI content index for the period from January 1 to December 31, 2022, using the GRI Standards as a reference.

STANDARD	DESCRIPTION	PAGE OF REFERENCE	EXTERNAL VERIFICATION
General Contents			
GRI 2: General Contents	The organization and its reporting practices		
	2-1 Organizational Details		
	2-2 Entities Included in the submission of Sustainability Reports		
	2-3 Reporting period, frequency, and point of contact		
	2-4 Updating information		
	Activities and employees		
	2-5 External Verification		
	2-6 Activities, Value Chain, and Other Business Relationships		
	2-7 Employees		
	2-8 Non-employee Workers		
	Governance		
	2-9 Governance structure and composition		
	2-10 Appointment and Selection of the Highest Governance Body		
	2-11 Chairman of the Highest Governance Body		
	2-12 Role of the Highest Governance Body in Overseeing Impact Management		
	2-13 Delegation of Responsibility for Impact Management		
	2-14 Role of the Highest Governance Body in Overseeing Sustainability Reporting		
	2-16 Communication of critical concerns		
	Strategy, policies, and practices		



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STANDARD	DESCRIPTION	PAGE OF REFERENCE	EXTERNAL VERIFICATION
	2-22 Sustainable Development Strategy Statement		
	2-23 Commitments and Policies		
	2-26 Mechanisms for Seeking Advice and Raising Concerns		
	2-27 Compliance with Laws and Regulations		
	2-28 Memberships in Associations		
	Stakeholders' Participation		
	2-29 Approach to stakeholders' participation		
	2-30 Collective Bargaining Agreements		
Material Topics			
GRI 3: Material Topics	3-1 Process for Determining Material Topics		
	3-2 List of Material Topics		
CO2 and Energy Emissions Management			
GRI 3: Material Topics	3-3 Material Topics Management		
GRI 302 Energy	302-1 Energy Consumption within the Organization		
	302-3 Energy Intensity		
GRI 305 Emissions	305-1 Other direct GHG emissions (scope 1)		
	305-2 Indirect GHG emissions when generating energy (scope 2)		
	305-3 Other indirect GHG emissions (scope 3)		
	305-4 Intensity of GHG emissions		
	305-5 Reduction of GHG emissions		
SASB RT-CH-110 Greenhouse Gas Emissions and Energy Resource Planning	RT-CH-110a.1 Scope 1 gross global emissions, percentage covered by emission limitation regulations		
	RT-CH-110a.2 Discussion on the strategy or short- and long- term plans to manage scope 1 emissions, goals for emission reduction, and analysis of the results related to these goals		



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STANDARD	DESCRIPTION	PAGE OF REFERENCE	EXTERNAL VERIFICATION
SASB RT-CH - 130 Greenhouse Gas	RT-CH-130a.1 1) Total energy consumed; (2) Percentage of grid power;		

Business Model resilient to climate change and regulations		
GRI 3: Material Topics	3-3 Material Topics Management	
Talent management		
GRI 3: Material Topics	3-3 Material Topics Management	
GRI 401 Employment (2016)	401-1 New hires of employees and employee turnover	
	401-3 Parental leave	
GRI 404 Training and Education	404-1 Average training hours per year by employee	
	404-2 Programs to improve employee skills and transition assistance programs	
	404-3 Percentage of employees receiving regular performance and professional development evaluations	
Diversity and Equal Opportunities		
GRI 3: Material Topics	3-3 Material Topics Management	
GRI 405 Diversity and equal opportunities (2016)	405-1 Diversity in government agencies and employees	
Occupational Health and Safety		
GRI 3: Material Topics	3-3 Material Topics Management	
GRI 403 Occupational Health and Safety	403-1 Occupational health and safety management system	
	403-2 Hazard identification, risk assessment and incident investigation	
	403-3 Health services in the workplace	



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STANDARD	DESCRIPTION	PAGE OF REFERENCE	EXTERNAL VERIFICATION
	403-4 Worker involvement, consultation and communication on occupational health and safety		
	403-5 Training of workers on occupational health and safety		
	403-6 Promotion of workers' health		
	403-7 Prevention and mitigation of impact on the health and safety of workers directly linked to business relationships		
	403-8 Coverage of the occupational health and safety management system		
	403-9 Injuries due to work-related accidents		
	403-10 Work-related illnesses and diseases		
SASB RT-CH-320 health and safety of the work force	RT-CH-320a.1 1) Total Recordable Incident Rate (TRIR) and (2) Mortality rate for a) Direct employees and b) Contract employees		
	RT-CH-320a.2 Description of the initiatives undertaken to evaluate, oversee and reduce direct and contract employees' exposure to long-term risks to their health (chronic)		
Water and effluents			
GRI 3: Material Topics	3-3 Material Topics Management		
GRI 303 Water and Effluents	303-1 Interaction with water as a shared resource		
	303-2 Management of impacts related to water discharges		
	303-3 Water Extraction		
	303-4 Water Discharge		
	303-5 Water Consumption		
SASB RT-CH-140 Water management	RT-CH-140a.1. (1) Total water extracted; (2) Total water consumed, percentage of each in areas with high or extremely high water stress		
	RT-CH-140a.3 Description of water management risks and analysis of the mitigation strategies and practices		
Circular Economy			
GRI 3: Material Topics	3-3 Material Topics Management		
GRI 306 Waste (2020)	306-1 Waste generation and significant impact related to waste		



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STANDARD	DESCRIPTION	PAGE OF REFERENCE	EXTERNAL VERIFICATION
	306-2 Management of significant impact related to waste		
	306-3 Waste generated		
	306-4 Waste not intended for disposal		
	306-5 Waste intended for disposal		
GRI 306 Effluents and Waste (2016)	306-3 Significant spills		
SASB RT-CH-150 Hazardous waste management	RT-CH-150a.1 Amount of hazardous waste generated, percentage recycled		
Air quality and air pollution near populate	ed areas		
GRI 3: Material Topics	3-3 Material Topics Management		
GRI 305 Emissions	305-6 Emissions of substances that deplete the ozone layer		
	305-7 Nitrous oxides (NOX), sulfur oxides (SOX), and other significant air emissions		
SASB RT-CH-120 Air quality	RT-CH-120a.1 Emissions into the air of the following pollutants: (1) NOX (excluding N20); (2) SOX; (3) Volatile organic complexes (VOC); and (4) Hazardous air pollutants (HAP)		
Biodiversity and impact on ecosystems			
GRI 3: Material Topics	3-3 Material Topics Management		
Incident Preparedness and Response			
GRI 3: Material Topics	3-3 Material Topics Management		
SASB RT-CH-540 Operational Safety, Preparedness and Response to Emergencies	RT-CH-540a.1 Process Safety Incident Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)4		
	RT-CH-540a.2 Number of transportation incidents		
Impact and relationship with communitie	es Es		
GRI 3: Material Topics	3-3 Material Topics Management		
GRI 413 Local Communities	413-1 Operations with local community participation, impact assessments and development programs		
SASB RT-CH-210 Relationships with the Community	RT-CH-210a.1 Discussion on the participation processes to manage risks and opportunities associated with the communities' interests		



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STANDARD	DESCRIPTION	PAGE OF REFERENCE	EXTERNAL VERIFICATION
Economic Impact and Local Developmen	t		
GRI 3: Material Topics	3-3 Material Topics Management		
GRI 204 Acquisition Practices	204-1 Expense ratio for local suppliers		
Ethics and integrity			
GRI 3: Material Topics	3-3 Material Topics Management		
Human Rights			
GRI 3: Material Topics	3-3 Material Topics Management		
Legal and Regulatory Framework Manag	ement		
GRI 3: Material Topics	3-3 Material Topics Management		
SASB RT-CH-530 Legal and Regulatory Framework Management	RT-CH-RT-CH-530a.1 Analysis of corporate positioning related to government regulations or policy proposals that address environmental and social factors affecting the sector.		
Cost Competitiveness			
GRI 3: Material Topics	3-3 Material Topics Management		
Innovation and Digital Transformation			
GRI 3: Material Topics	3-3 Material Topics Management		
Product design for use-phase efficiency			
GRI 3: Material Topics	3-3 Material Topics Management		
SASB RT-CH-410 Product Life Cycle Management	RT-CH-410a.1 Revenue from products designed for resource efficiency at the use phase		
Management of chemicals to protect safe	ety and the environment		
GRI 3: Material Topics	3-3 Material Topics Management		
SASB RT-CH-410 Product Life Cycle Management	RT-CH-410b.1 1) Percentage of products containing chemicals that are hazardous to health and the environment belonging to classes 1 and 2 of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), 2) percentage of such products that have undergone a risk assessment.		



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Customer Experience			
GRI 3: Material Topics	3-3 Material Topics Management		
GRI 416 Customer Health and Safety	416-1 Evaluation of the health and safety impacts of product or service categories		
GRI 417 Marketing and labeling	417-1 Requirements for information and labeling of products and services		
	417-2 Non-compliance cases related to marketing communications		