YPF QUÍMICA

2020/2021 SUSTAINABILITY REPORT



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REPORTING PERIOD: JANUARY 1, 2020 THROUGH DECEMBER 31, 2021





MESSAGE FROM MANAGEMENT

In order to allow consumers and investors to make informed decisions on sustainability, companies must establish ambitious environmental, social and governance goals and report on their ongoing management to achieve them. This is our first Sustainability Report for YPF QUÍMICA, which reports on our performance during 2020 and 2021 to meet the goals we have set for the company, which are aligned with our corporate and business strategy.

At YPF we actively seek opportunities and resources to meet current energy needs, working with a long-term vision to face the future challenges of the industry, and with the commitment to contribute towards a carbon-neutral energy matrix.

As part of the Group, at YPF QUIMICA we invest in intelligence to transform the world, since our business is the backbone of countless industries. The company generates a multiplier effect on national economic activity, substituting imports, exporting to more than 20 countries and contributing to the creation of employment. Through our integration with the oil

and natural gas industry, we generate higher value-added products that monetize our reserves.

Our business strategy is focused on improving the competitiveness of current lines, growth through regional expansion, new product development and commitment to sustainability.

We have optimization plans for operations, warehousing, logistics and marketing. Among them, it is worth highlighting the synergy achieved with Fuel Business, integrating it to the logistics of our methanol product, thus reducing the impact on the environment.

We are developing new product lines to improve YPF QUÍMICA's value proposition. During 2020, a year marked by the global pandemic, we developed a portfolio focused on health care and people. Since 2021, we are expanding the portfolio with a focus on the Oil & Gas segment.

In line with corporate Operational Excellence Policy, the company expresses its commitment to the environment, reducing its carbon footprint and meeting the global challenge of waste reduction. In order to solve this problem, the company is implementing a modular Plastic Chemical Recycling plant integrated to YPF's production circuit, which will soon be operative.

In the social aspect, we joined the Corporate Diversity and Inclusion Plan, participating in the LIFE Program to promote female leadership roles. Regarding integration with our communities, we highlight the nursery of La Plata Industrial Complex, managed by a local cooperative.

YPF QUIMICA hopes that this first report will become a milestone in the relationship with its stakeholders, seeking an openness to dialogue and accountability for responsible business management.

It is our hope that it will be useful to you, as it was for us during the preparation process.



Martina Azcurra Chief Executive Officer of YPF QUÍMICA





YPF QUÍMICA IN FIGURES 2021

1278 KT/YEAR OF PRODUCTION

#1 PETROCHEMICAL PRODUCER IN THE COUNTRY 1,210 KT SALES

305

DIRECT EMPLOYEES 6.6% women 53% women in leadership positions





2,293 T CONSUMED WATER

13.1 GJ/T OF **FINAL PRODUCT ENERGY INTENSITY**

2,678 T TOTAL GENERATED WASTE



		101,385 MILLION ARS REVENUES	+ 84% NATIONAL PURCHASES
	+180 CLIENTS	2 INDUSTRIAL COMPLEXES	
	YPE	26.8% OF TOTAL ELECTRIC POWER CONSUMED RENEWABLE ELECTRIC POWER CONSUMPTION	0.45 TCO ₂ e/ PRODUCTION UNIT GHG DIRECT EMISSIONS INTENSITY
Ξ	0.28 ACCIDENT FREQUENCY RATE	14,142 MILLION ARS VOLUNTARY SOCIAL INVESTMENT	













BUSINESS PROFILE

GRI: 102-5

YPF QUÍMICA is a business unit of YPF S.A. Its Executive Management is part of the Downstream Executive Vice-Presidency together with the Retail, Industry, Aviation, Agro, LPG and Lubricants & Specialties businesses.¹

It is the largest petrochemicals producer in Argentina and one of the largest in the Southern Cone. It produces, markets and distributes petrochemical products manufactured in its different complexes. These products 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 YPF's businesses and in particular its strategic connection with refineries, its Ensenada Industrial Complex (CIE) adds value to virgin naphtha, kerosene, sulfur, butane and butene streams, generating octane boosters, solvents, surfactants, polymers and other products which represent the raw material for a wide variety of goods used in everyday life.

It is also the largest methanol producer in the country. A natural gas-based product manufactured at the Plaza Huincul Industrial Complex (PHIC).

YPFS.A.

With almost 100 years of history, YPF S.A. 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 inputs, lubricants and products for agriculture, among others. The company is a leader in unconventional oil and gas resources in Latin America and, in addition, it has a growing business in electricity generation, including the development of renewable energies.

Its headquarters and almost all of its operations are located in Argentina, although it has some activities in other countries in the region.

INVESTORS

YPFS.A. is a public limited company with legal domicile in Argentina, subject to the public offering 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 - Secretariat of Energy
- \rightarrow 49% BCBA and NYSE

For further information on YPFS.A.'s profile, please refer to:

www.ypf.com/LaCompania/ Paginas/Todo-sobre-YPF. aspx







YPF QUÍMICA, **AYPF BUSINESS**

REFERENCES

- OIL AND DERIVATIVES
- LIQUID FUELS
- NATURAL GAS
- ELECTRIC POWER

1. NEW ENERGIES

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

Search and identification of new oil and gas reserves.

3. DEVELOPMENT

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

Conventional and unconventional 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) 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

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

7. REFINING

2

YPF refines oil for the production of fuels and derivatives (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).

8. QUÍMICA

YPF is the main petrochemical 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).

9. LUBRICANTS AND SPECIALTIES

Design, production and sale of lubricants and specialties.

10. RETAIL SERVICE STATIONS

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

11. AGRO

(16)

(17)

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

12. LPG

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

Supply of energy inputs and services to domestic industry.

14. GAS DISTRIBUTORS

(13)

YPF provides and participates in domestic natural gas distribution services through its controlling interest in Metrogas.

15. POWER PLANTS

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

16. LNG

Regasification and distribution of liquefied natural gas in bulk.

(10)

Ple

17. MIDSTREAM

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

natural gas condensates LNG refined products and petrochemicals relevant to the country's development.





YPF markets crude oil and



NO.

01 COMMITMENT TO SUSTAINABILITY

Material Topics:

YPP

the state

- Human Rights
- Relationship with industry and stakeholders
 Efficient and profitable production



1.1 MATERIAL TOPICS AND STAKEHOLDER DIALOGUE

GRI: 102-21, 102-29, 102-40, 102-42, 102-43, 102-44, 102-46, 102-47

YPF QUIMICA participates in the company's sustainability strategy, whose general purpose is to convert natural resources into energy and products that improve people's quality of life and promote the country's progress. This implies taking a leadership role in Argentina's energy present and future, offering long-term value creation to our shareholders, investors and partners, as well as to all our stakeholders.

Work is therefore focused on sustainability priorities defined for the Group, which will be described below and which imply their deployment for each business in particular. These were defined based on dialogue with stakeholders and focus on material topics of the industry and the company.

The contents of this report reflect our most relevant actual or potential risks and impacts related to sustainability, as well as the material topics prioritized by the company and its stakeholders for the period covered.

The materiality assessment took into account, on one hand, a global sustainability context and, on the other hand, the issues of the chemical industry in particular. This included the review of multiple documents and sources of information, voluntary sustainability standards and ESG (Environmental, Social and Corporate Governance) criteria.

Internal consultations were held with employees and interviews were conducted with top-level company representatives, who evaluated the issues according to their degree of risk and relevance for the current and future work of YPF QUÍMICA. External consultations were also held, with the participation of suppliers, customers, business chambers, competitors and civil society organizations. They were then targeted and reached through an online survey, which garnered high participation.

A media agenda analysis and meetings with investors linked to the company helped complete the process.

STAKEHOLDERS	MAIN SPACE FOR DIALOGUE
Employees	Meetings, presentations, annual meetings, bulletin boards, mails, Intr LinkedIn, Workplace, Training Program, Climate Survey, Employee Services (SAE), YPF QUÍMICA and corporate websites, Ethics Line.
Clients	Meetings, mails, surveys, LinkedIn, technical talks and training, visits, inquiries and complaints channel, YPF QUÍMICA and corporate websit conferences and congresses of the chemical and petrochemical secto both local and international (APLA, EPCA, AFPM, among others).
Suppliers and Partners	Meetings, surveys, training, inquiries and complaints channel, supplier service, YPF QUÍMICA website.
Industry peers and chambers	Meetings, letters, formal notes, participation in committees and commissions, YPF QUÍMICA and corporate websites, LinkedIn.
Civil society organizations	Meetings with community representatives, opinion surveys, virtual training, press releases, inquiries and complaints channel, YPF QUÍMICA and corporate websites, LinkedIn, social networks.

Also, during the reporting period, we conducted a continuous dialogue with our stakeholders to listen to their opinions and concerns, needs and expectations, and to keep them informed about our performance. The main stakeholders are employees, shareholders, government authorities, business partners and suppliers, customers, local communities and academic institutions, media and opinion leaders.

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









The of 1	e result of this exercise was the prioritization 9 issues in five dimensions:	Relevance to external stakeholders	100%
\rightarrow	Economic dimension with a focus on corporate governance and management.		
\rightarrow	Social dimension focused on labor practices and relations with the community.		75%
\rightarrow	Environmental dimension, where priority is given to the reduction of GHG emissions and responsible water and waste management.		50%
\rightarrow	Development of sustainable products with lower carbon footprint.		
The ma	ey are shown in the following materiality trix:		





Relevance to internal YPF groups



YPF

1.2 SUSTAINABILITY PRIORITIES

GRI: 102-47

1. Sustainable Production

- \rightarrow Conducting safe and responsible operations that reduce the carbon footprint, with a circular economy approach.
- \rightarrow Consuming and making available to customers lower carbon products.

2. Climate Action

- \rightarrow Incorporating climate change challenges to strengthen business and operational resilience.
- \rightarrow Providing increasingly cleaner energy through a carbon-efficient oil and gas portfolio.
- \rightarrow Continuing profitable production of electric power and renewable energies through YPF LUZ.

3. People

- success.

4. Shared Social Value

- other stakeholders.



 \rightarrow Ensuring the health and safety of people, as well as the integrity of our assets.

→ Working committed to the development of people and their capabilities, as well as promoting diversity and inclusion, values which contribute to the company's

→ Producing energy for millions of Argentines every day.

 \rightarrow Creating value for our shareholders and

 \rightarrow Engaging in a fluid dialogue with them and managing the environmental and social impacts of our activities.

 \rightarrow Promoting the adoption of sustainability standards in the value chain.

 \rightarrow Contributing to quality education and sustainable local development.







1.3 GOVERNANCE OF SUSTAINABILITY

GRI: 102-15, 102-18

This process involves the highest management body as well as the different businesses, work areas and territorial operations. The Board of Directors is responsible for promoting best practices in sustainability within the company, establishing corporate policies on this matter and monitoring compliance, tasks performed through its Risks and Sustainability Committee.

The framework is described in the Sustainability Policy, and is reflected in the Operational Excellence model applied to all activities and extended to suppliers and partners.

Regarding timely risk management and handling of potential impacts on the business, including those related to sustainability and climate change issues, YPF has a structured, continuous and transversal risk management process throughout the organization, 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 is responsible for 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 various internal and external audits.

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

Climate change-related risks are being included in this assessment, from a more strategic perspective of business resilience to decarbonization and energy transition trends, in terms of market and demand changes for our products, identification of new businesses, new regulations and carbon taxes, new technologies or changes in customer preferences. But 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.

For more information on YPF's sustainability strategy and governance and climate change risk management, please visit: www.sustentabilidad. **ypf.com** and the latest Sustainability Report published.



YPF

CONTRIBUTION TO SDGs

YPF's sustainability strategy also seeks to contribute to the achievement of the Sustainable Development Goals set forth in the United Nations 2030 Agenda.

At YPF QUÍMICA, we focus on the following SDGs aligned with the Group's priorities and our material topics:

SUST PRIO Pec

12

SUSTAINABILITY PRIORITIES	MATERIAL TOPIC	KEY INDICATOR	PERFORMANCE 2021	SDG LINF
People	Occupational Health and Safety	Accident Frequency Rate (AFR)	0.28	5
	Training and development	Average hours of training per direct employee	4.5	Ę
	Diversity and Equal Opportunities	% of leadership positions held by women	53	
Shared Social Value	Responsible supply chain management	% of purchases in Argentina	83.2	4 ===
	Impact and relationship with the communities	Total voluntary social investment (M ARS)	14.4	8 📰
Sustainable Production	Water and Effluents Management	% of water-efficient facilities with increased collection of water	25	
	Waste Management	% of waste Reused+Recycled/Total non-hazardous waste	74	
Climate Action	Business Model resilient to climate change			7 == -}¢
	Emissions reduction and air quality	GHG Direct emissions intensity (tCO ₂ e/ unit produced)	0.49	
	Energy Management	Energy intensity (GJ/unit produced)	13.1	
		% energy purchased for consumption from renewable sources	26.8	
	Research, Development and Innovation	Development of Health Care products and new chemical products related to Upstream and Downstream activities	Sanitizing Alcohol	
	Carbon footprint of products	Carbon footprint of PIB and Methanol products	Calculated	
Governance	Regulatory compliance	% of direct employees adhering to the Code of Ethics and Conduct	100%	16 🚟
and Alliances	Human Rights	% of the security staff belonging to contracted personnel who had training on human rights	100%	3
	Relationship with industry and stakeholders	Participation in work groups	Detail on page 36	











YPFQUÍMICA

12:21 (9)

INTELLIGENCE TO TRANSFORM YOUR WORLD

CHEMISTRY IS EVERYWHERE, SO ARE WE

111

We are a leading company in the production of chemicals in Argentina.

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02 YPFQUÍMICA. INTELLIGENCE TO TRANSFORM YOUR WORLD

This all

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SDGs: 16 AND 17

MATERIAL TOPICS:

- EFFICIENT AND PROFITABLE PRODUCTION
- REGULATORY COMPLIANCE
- RELATIONSHIP WITH INDUSTRY AND STAKEHOLDERS







2.1. BUSINESS STRATEGY **AND ECONOMIC** PERFORMANCE

GRI: 102-7, 103-1, 103-2, 103-3, 201-1

Petrochemicals 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 inputs or raw materials present in practically all modern life goods.

As a sector, it is an essential link in the productive activity of each country, as it generates intermediate products essential for other industries, such as food and pharmaceuticals. It also contributes to the generation of direct employment, promotes a multiplier effect in the economy and enhances the use of hydrocarbon resources available in the country.

As a business unit of the YPF Group, YPF QUÍMICA is integrated into the company's business strategy. The YPF Group is currently working on a new five-year 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 seeks to leverage the opportunities and resources available to meet current energy needs and, ultimately, work with a longterm vision of the industry's future challenges, with an ongoing commitment to contribute to a low-carbon energy matrix and generate value for shareholders.

growth:

96% of all products manufactured in the world today are directly or indirectly related to the chemical and petrochemical industry.

In this sense, they will continue to be pillars of the business for profitable, low-carbon

 \rightarrow Financial discipline and strict capital allocation, focused on the development of our unconventional hydrocarbon areas with competitive advantages.

 \rightarrow 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.
- \rightarrow Petrochemicals associated with the growth of natural gas production.
- \rightarrow Decarbonization of the company's operations and development of new businesses and low-carbon solutions, such as YPF LUZ electric power production.
- \rightarrow Investment in innovation and technology aimed at a competitive and sustainable business.

The opportunity to promote the development of the petrochemical future has become a relevant work priority for downstream business. In this sense, YPF QUÍMICA defines the following strategic axes focused on profitable growth, customer satisfaction and product quality.



YPF

STRATEGIC FOCUS	LINE OF WORK
Current business value	Strengthening the competitiveness of existing lines of business.
Natural gas enhancement	Industrialization of liquid components of natural gas from unconventional reservoirs. Substitution of imports due to deficits of chemical products and derivatives.
New product lines	Optimizing the product portfolio. Enhancing technical and commercial knowledge in new products.
Market expansion	Growth through regional expansion.
Sustainability	New multi-year sustainability plan.
	Promoting the decarbonization of operations and product carbon footprint management.
	Enhancing reporting and transparency of ESG performance.

PROJECTS/INITIATIVES

Industrial optimization, cost efficiencies, storage, commercial, safety and environmental plans.

Natural gas and natural gas liquids monetization projects, including methanol, fertilizers and plastics.

Development of new chemical products related to Upstream and Downstream activities.

Staff and Health Care.

Plans for commercial growth and logistical adaptation in regional markets.

Chemical recycling projects linked to the reduction of plastic waste.

Carbon footprint of products.

PCRMA® Certification².

Periodic Sustainability Report.



YPF

> **ASA BUSINESS UNIT OF THE** YPF GROUP, YPF QUÍMICA **IS INTEGRATED INTO THE COMPANY'S STRATEGY. DURING 2021, WE WORKED TO KEEP THE COMMITMENT OFALL STAKEHOLDERS** INVOLVED TO CONSOLIDATE THE EFFICIENCIES ACHIEVED, AS AN ESSENTIAL STEP TO **FURTHER STRENGTHEN THE COMPETITIVENESS AND** SUSTAINABILITY OF THE **BUSINESS.**



ECONOMIC PERFORMANCE

GRI: 102-7, 103-1, 103-2, 103-3, 201-1

The macroeconomic context for the period was characterized by the major economic impact of the pandemic worldwide and the measures to tackle it, as well as by a strong rebound in 2021 and a new stage of deceleration that we are currently entering. In Argentina, GDP fell by 9.9% in 2020, similar to what happened in other countries, while during the following year it grew again by over 10%, mainly due to the recovery of economic activity.

As a result of lower activity and pandemic-related restrictions, demand and prices for oil and gas and associated products experienced a significant contraction. 2020 was an extremely challenging year for the industry worldwide, affecting all of YPF's businesses and in particular our operations and strategy. Restrictions linked to COVID-19 not only involved the operation being in "essential activity" mode with logisticallimitations and reduction of personnel for daily activities, but also, in the particular case of Química, implied adaptations in the schedules of programmed shutdowns of production units. In addition, customers' financial conditions reduced their ability to pay and had to be worked on together, as well as the challenges of the

national economy, which involved inflationary pressures and currency devaluation.

This required a quick and decisive reaction on the part of the company, which, in terms of caring for people's health, involved the creation of the COVID-19 Committee with daily and then weekly operation, but which also involved adjusting activity and productions, and executing cost efficiencies to preserve financial sustainability. The complex scenario was then taken as an opportunity to rethink the way of working with optimizations based on four axes:

- of improvements.
- 3.

For the Química business, it was essential during this stage to meet the objective of supplying priority clients on an uninterrupted basis. This is the case for those who demand

1. Review of operational processes in search

Renegotiation of contracts with suppliers with an operational and commercial focus.

Agreements with labor unions to jointly adapt to the new normal.

4. Acceleration of the voluntary retirement plan for the company's direct personnel. linear alkylbenzene sulfonate, a basic input for detergents and soaps that became essential products during the pandemic. The opportunity to supply other sanitary products opened up and the production of 70% sanitizing alcohol began, which allowed supplying YPF's facilities at first and then expanding to investee companies, governmental entities and the general public. Simultaneously, in the context of the drop in local and regional market demand and in view of existing storage limitations, exports of products such as benzene and toluene were promoted in order to prevent the company's refining system from being affected.

For more information on the Economic and **Financial Performance** of YPF S.A. and YPF Group, please refer to the Sustainability Report and **Financial Information** (ypf.com)







During 2021, 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. That year, as pandemic restrictions were lifted, both demand and prices recovered even to previous levels. The demand for chemical products at national and international levels increased, both for consumption and stock recovery, and some customers upgraded their units, boosting our sales. On the other hand, the global context is beginning to be more favorable for Argentina due to the increase in the prices of raw materials exported by the country.

As for Química's sales to third parties, the domestic market accounted for 70%, while the foreign market accounted for 30%. Profitability of the business unit represents more than 10% of YPF's downstream business.

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% d Tot

REVENUE IN MARS

	2021	2020
Sales to Third Parties	\$ 101,835	44,040
Sales to Third Parties	\$ 64,377	23,631
Internal Sales	\$ 37,457	20,408

PRODUCT SALES

		2021	2020
tal Sales	kt	1,210	1,100
les to Third Parties	kt	702	583
omestic Market	kt	489	390
reign Market	kt	213	193
ternal Sales	kt	508	517
of Domestic Market Sales/ tal Sales to Third Parties.	%	70%	67%
of Foreign Market Sales/ tal Sales to Third Parties	%	30%	33%



MPF

2.2. INDUSTRIAL **COMPLEXES**

GRI: 102-4

INTEGRATED COMPANY

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



YPF QUÍMICA obtains the raw materials necessary for the generation of 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 departments, offering transportation and distribution services for its products to international, regional and local clients.

ucts 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 Complex³ (CILP) on a daily basis, which are necessary for the pro-



This integration with the rest of the company allows YPF QUÍMICA to ensure the continuity of supply to its clients and the quality of the prodduction 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 the best 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).

It is also a leader in the commercialization 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 commercialization are certified under international standards (see table).

Additionally, the Chemicals Executive Management has ISO 9001 certification for business management.

The Ensenada Industrial Complex (CIE) is certified under the Environmental Responsible Care Program (PCRMA®), a voluntary system of good process practices for safety and hygiene, occupational health, and the environment.

		ENSENADA INDUSTRIAL COMPLEX (CIE)	PLAZA HUINCUL INDUSTRIAL COMPLEX (CIPH)	LUJÁN DE INDUSTRI (CILC) OF Y
scription		It is the main petrochemical complex in Argentina. It is integrated with the largest refinery in the country and is supplied by it with the main raw materials: virgin naph- tha and liquefied petroleum gas. The largest volume of products marketed by YPF QUÍMICA is produced here.	Plant for the production of methanol from natural gas. Strategically located for natural gas and electric power supply.	It produc and sup propyler
cation (city - p	rovince)	La Plata - Buenos Aires	Plaza Huincul - Neuquén	Luján de -Mendoz
rtifications	Responsible Care (PCRMA®)	●		
	ISO 9001:2015		•	
	ISO 14001:2015		•	
	ISO 50001:2011	•	*	
	ISO 45001:2015	•	•	
	ISO 14064:2020		●	

* Certification was achieved in July 2022.



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2.3. MARKETS, PRODUCTS **AND SERVICES**

GRI: 102-2, 102-6

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; foreign 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, synthet ic 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 us to better preserve our food, among others.

SALES BY DESTINATION







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

The table on page 22 shows all the sectors and industries supplied by YPF QUÍMICA, products offered, as well as the origin of the raw material used and its value-added process to meet the demands of our clients:

MARKET SHARE IN 2020 SALES⁴:

67% Internal, 33% External. Countries to which the largest volumes of product were shipped include: 1 USĂ, 2 Brazil, 3 Chile, 4 Uruguay and 5 Paraguay. Also: Belgium, Bolivia, Canada, China, Colombia, Germany, Spain, United Kingdom, Israel, India, Italy, Mexico, Peru, Portugal, Turkey and South Africa.

MARKET SHARE IN 2021 SALES:

70% Internal, 30% External. The five countries with the highest sales volumes were: 1 Brazil, 2 Chile, 3 USA, 4 Uruguay and 5 Paraguay. Also: Bolivia, Canada, China, Colombia, Spain, the United Kingdom, Italy, the Netherlands, Peru and Turkey.





PETROCHEMICALS







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TWO NEW PRODUCTS



During 2020 and 2021, in the context of the pandemic, YPF QUÍMICA added the development and commercialization of two new products for the market: an alcohol-based hand and surface sanitizer and a hand sanitizing gel, both with exclusive formulas developed by Y-TEC⁷. In the first year alone, more than 58,000 units of sanitizers in their different containers (5 liters and 300 ml) were distributed in YPF's



panies (Profértil, YPF LUZ, Metrogas, Compañía Mega and Oldelval). During 2021, almost 140,000 units of sanitizer and alcohol gel were produced, distributed and marketed in different containers (75 ml, 250 ml, 300 ml and 5 liters) for internal use and for sale to external clients. Today, alcohol gel is available in more than 650 FULL YPF stores throughout the country.

PRODUCTION VOLUMES BY SEGMENT (T/YEAR)¹

	PRODUCTS INCLUDED IN CATEGORY	2021	20
Specialties	LAB/LAS, PIB, MAN	79,719	6
Alcohols	Methanol	324,580	1
Solvents and Basic Chemicals	Benzene, Toluene, Xylene Mixture, Orthoxylene, Heavy Aromatic, Octane Base, Cyclohexane, Solvents, Turpentine, Isoparaffinic Cutting	487,120	5

1. Criterion: Net production with self-consumption, without considering the production of by-products.

2. Lower methanol production due to unit plant shutdown

PRODUCT SAFETY

GRI: 103-1, 103-2, 103-3, 416-1

Ensuring the safety of the products it offers is a priority for YPF QUÍMICA. Therefore, the company works not only within the framework of current national regulations, but also adheres to international voluntary norms and standards.

NATIONAL REGISTRATIONS AND **STANDARDS**

 \rightarrow National Registry of Chemical Precursors, within the framework of National Law No. 23,737 "Drug Law": YPF S.A. 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.









- \rightarrow 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 REGISTRATIONS AND STANDARDS

→ REACH: European Registry of Chemical Substances and Mixtures⁵: YPF QUÍMI-CA has the following products registered under this regulation: Methanol, Cyclohexane, PESAP, 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.

\rightarrow 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. Extension is the incorporation of a series of annexes to the usual safety data sheets where the different exposure scenarios of the chemical for each of its uses are evaluated.

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.

TURKEY MARKET

KKDIK Register⁶: This is Turkey's chemical products registry. YPF QUÍMICA has already pre-registered its Maleic Anhydride product and the raw material to manufacture Polyisobutylene.

For further details of our products, please refer to the digital brochure:https://www.ypf. com/productosyservicios/ quimica/Documents/ Brochure_ypfquimica.pdf









2.4 OUR CLIENTS **ASAPRIORITY**

The Code of Ethics and Conduct, adhered to by the people in our company, identifies the focus on the client as the key priority, to know and understand their needs and provide added value with integral solutions.

YPF QUÍMICA supplies more than 180 local and international clients, which can be classified as end clients, distributors or co-producers, and they operate in the domestic, regional or global markets.

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

CLIENT SATISFACTION

GRI: 103-1, 103-2, 103-3

YPF QUÍMICA has a team of qualified business representatives with experience in knowledge of the market, products' technical specifications and their respective applications. The business representative is the link between YPF QUÍMICA and its clients. It also has a Technical Assistance Service available to resolve queries on a product's quality, its uses and adequate handling. Clients can gain access through an exclusive e-mail link: Asistencia.tecnica.quimica@ypf.com or directly through YPF QUÍMICA's website.⁸

Furthermore, the satisfaction level with the product and our service, as well as a general opinion on the business, are evaluated through a Clients' Satisfaction Survey, which is carried out every two years. Its objective is to obtain information on the current perception and rating of YPF QUÍMICA's clients and retrospectively throughout the historical trend. For the 2021 survey, 100% of active clients (186) were invited to participate, of which 161 responded (60% from the local market and 40% from abroad).

The satisfaction rate with the product and our services and general opinion has a 1 to 5 range, 1 is the lowest satisfaction rate and 5 is the highest:

THE HISTORIC EVOLUTION OF THE SATISFACTION RATE

The satisfaction rate shows a homogeneous positiveness throughout the different surveys.

GENERALLY, HOW SATISFIED ARE YOU WITH YPF QUÍMICA'S SERVICES 2 – (SLIGHT DIEFERENCES DUE TO ROUNDING OFF)	2021	2019	2017	2015	2011	2009	20
	4.0	3.9	4.1	4.2	4.0	4.0	4.
I WOULD LIKE TO KNOW YOUR OPINION OF YPF QUÍMICA. YOU WOULD	2021	2019	2017	201	15 2	:011	2009
	4.2	4.3	4.2	4.3	3 4	⊦.1	4.1

MAIN CONCLUSIONS REGARDING THE SURVEY:

- \rightarrow YPF QUÍMICA shows a positive performance with practically 8 of every 10 clients, who stated they were satisfied with our services.
- \rightarrow There is a consistent positive opinion on YPF QUÍMICA in the different surveys taken since 2007.
- \rightarrow In both surveys (2019 and 2021) the product maintained a high rating level of its different attributes. (The product's general rating, quality, technical specifications and delivery of the analysis certificate).
- \rightarrow YPF QUÍMICA is clearly perceived as an international company, and 6 of every 10 clients expressed it adapted to the pandemic situation, offering a more flexible service. (Response to a specific question).
- \rightarrow There was a high level of use and rating regarding the safety data sheets and the technical specifications and applications among people who know the services offered by the website; however, the level of knowledge regarding the website is 21%.







INFORMATION ON PRODUCTS TO CLIENTS

GRI: 103-1, 103-2, 103-3, 417-1

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

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

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 placed according to the current legislation and the Globally Harmonized System (GHS).

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 respectively in drums and bags. 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 the GHS rulings.

YPF QUÍMICA has:

- → Safety Data Sheets (SDS) aligned with the GHS (Globally Harmonizing System), available on its website in two languages⁹.
- → Extended Safety Data Sheets (eSDS), aligned with the Classification Labeling and Packaging (CLP) rules, in the case of exporting products to the Eurozone.
- \rightarrow Labels that are manufactured according to the norms mentioned previously.
- \rightarrow Emergency Interventions Sheets (EIS) aligned with the Mercosur (Latin American Market) demands.

As to the carriers, YPF QUÍMICA additionally gives them Emergency Interventions Sheets (EIS) of the product. Below are the requirements for contents:

CONTENTS IN THE EMERGENCY INTERVENTIONS SHEET (EIS)

This document must concisely show:

- The nature of the hazard in the merchandise being carried, as well as the 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.
- In case of fire, the measures that must be taken and particularly the means that must not be used in putting out a fire.
- The measures that must be used in case of breakage or deterioration of packaging or cisterns, or in case of drainage or leakage of the hazardous merchandise being 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, for the length of 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





ATTENTION TO CLIENTS' CLAIMS

Each claim or complaint made by an YPF QUÍMICA client 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. According to the reason for the claim, a YPF Resolution Group is defined and made responsible for 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 offered in which the actions that have been taken are included. At the same time, a resolution is registered and the claim in the system is closed.

During 2020 and 2021, 100% of the claims were handled and closed.

Some examples of claims are: delay in delivering the product; an out-of-spec product or out of guarantee quality; broken container; lack of documentation.

CLAIMS	2021	2020
Reported warnings of quality and uploaded to the system	21	37

objectives and indicators.

OBJECTIVES AND INDICATORS

Annual average of days of response to our clients

T of product claimed/T of product sold

Number of orders claimed/Number of orders issued

TRAINING FOR CLIENTS

Among the actions deployed to offer a quality service to the client, we have planned to organize some training activities. In 2021, a course on YPF QUÍMICA's solvents was carried out jointly with ATIPAT (Latin American Technological Association of Paints, Adhesives and Dyes). Deployed through a webinar, it focused on technicians such as those in laboratories, research and development, buyers, managers and owners of coatings companies (adhesives, dyes, paints, textiles). Its main objective was: To acquire theoretic tools to predict the behav-

To measure the performance of managing the clients' claims, we have available associated

	OBJECTIVE	2021	2020
f	Less than 25 days	20 days	24 days
	Less than 1%	0.08%	0.28%
5	Less than 1%	0.13%	0.33%

ior of solvents and be able to select those most appropriate for applying to the system.

This course was attended by personnel of the paints industry of Argentina, Colombia, Chile, Brazil, Paraguay, Uruguay, Spain, Venezuela, Dominican Republic, Peru, Guatemala, Ecuador and Mexico.

67% were from Argentina, and the rest from Colombia, Chile, Brazil, Paraguay, Uruguay, Spain, Venezuela, Dominican Republic, Peru, Guatemala, Ecuador and Mexico.
The general grading was higher than 4, with a maximum of 5. On the quality of the speakers, 82% gave a 5-point rating (the maximum being 5).

On the other hand, in order to increase the available knowledge regarding managing chemical products, we participated in the online seminar "Seguridad de Procesos y Operaciones: la importancia en la Industria Química y Petroquímica - (CIQyP)¹⁰" (Process and Operations Safety: The importance in the Chemical and Petrochemical Industry) within the framework of the Responsible Environmental

Care Program (PCRMA®). The goal was to exchange experiences, obtain updated knowledge and listen to the resource people on these subjects to give the participants a clear management vision based on risks as a fundamental part of a safe and sustainable operation.

The two-day conference was directed by CI-QyP® members, professionals who interact and manage process operations and seek to efficiently manage the operational excellence goals. The program had expert national and international speakers and a round table of specialists.

Specialists in our optimization and control, mechanical integrity, risk and safety processes management teams participated for YPF.





03 CLIMATE ACTION AND SUSTAINABLE PRODUCTION

SDGs: 7, 9, 12, 13, 17

MATERIAL TOPICS:

- EFFICIENT AND PROFITABLE PRODUCTION
 BUSINESS MODEL RESILIENT TO CLIMATE CHANGE
 EMISSIONS REDUCTION AND AIR QUALITY
 PRODUCTION CARBON FOOTPRINT
 ENERGY MANAGEMENT
 WATER AND EFFLUENTS MANAGEMENT
 RESPONSIBLE WASTE MANAGEMENT
 CIRCULAR ECONOMY
 RESEARCH, DEVELOPMENT AND INNOVATION



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. The commitment translates, as well, to policies that seek to ensure efficiency in the use of resources, reducing emissions, an adequate waste management and care for the ecosystems in all the value chain.

Our Operational Excellence Policy makes clear a responsibility in caring for the environment, and ensures the trust and integrity of our assets and operations. A series of additional internal rules establishes minimum criteria for action complementing the regulatory frame demands. 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 identifying 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, each business reports on data quarterly through a specific application.

The calculation methodologies are established in the "Guía de Parámetros Ambientales" (Environmental Parameters Guide) that is periodically updated and includes energy consumption, atmospheric emissions, water management, discharges, spills and waste management. Analyzing this information allows a simultaneous assessment of the situation and the environmental performance evolution, as well as expressing opportune information for the internal or external interested players. The Environmental Parameters Guide covers production, processing, storage, distribution and commercialization of hydrocarbons and their by-products, as well as electric power generated.

Once a year, these environmental parameters are verified by an external consultant company, according to that presented in the "Informe de Aseguramiento Limitado" (Limited Insurance Report) incorporated into the period's Sustainability Report. In 2020, CIE's environmental parameters were audited, as well as both YPF QUÍMICA's Complexes in 2021: CIE and CIPH.

YPF QUÍMICA also adheres to the Responsible Environmental Care Program©, which is certified by external audit at the La Plata Industrial Complex's petrochemical facilities. This program has voluntary compliance in the chemical industry and promotes continuous improvement









in the areas of safety, occupational health and environment and its incorporation into the companies' internal policies, promoting the responsible management of chemical products in all stages of use as well as in the 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 points were highlighted:

- \rightarrow Monitoring of the ISMA (abbreviation for "Argentine Market sentiment Index") objectives and indicators.
- \rightarrow E-Leaning training platform.
- \rightarrow Brigade training and attention plans during emergencies.
- \rightarrow Medical service activities regarding health care.
- \rightarrow Briefings for drivers who begin loading in the company, including the Responsible Environmental Care Program PCRMA® concepts.

As for networking and in alliance with other

institutions, YPF participates in different initiatives and working meetings related to corporate environment management:

- Transport.

- Safety commissions.

Furthermore, YPF QUÍMICA is a member of

→ Argentine Network of the United Nations Global Pact It participates in the work groups of Circular Economy, Climate Care, Value Chain Sustainability, Human Rights and Sustainable Companies and

→ ARPEL - Asociación Regional de Empresas del Sector Petróleo, Gas y Biocombustibles en Latinoamérica y el Caribe (Regional Association of Oil, Gas and Biofuels Sector Companies in Latin America and the Caribbean) Board Member of the ARPEL commissions for Social Responsibility, Communications, Ducts and Terminals, Refining.

→ AmCham - American Chamber of Commerce in Argentina, in which it participates in the Environment and Sustainability commissions.

 \rightarrow IOGP - International Association of Oil & Gas Producers, in the Environment and

the Argentina Petrochemical Institute and the Chemical and Petrochemical Chamber (CIQyP), in which it participates in the commissions and working meetings related to the environment, for example: Consorcio de Reciclado Químico de Plásticos (Chemical Plastic Recycling Consortium), Net Zero Commission, PCRMA® Industries Committee.

AUDITS AND CERTIFICATIONS

100% of YPF QUÍMICA's industrial complexes are certified by ISO 14.001 and ISO 14.064 standard certificates. The Ensenada Industrial Complex (CIE) has an ISO 50001 certificate and the Plaza Huincul Industrial Complex (CIPH) is now in the process of obtaining the certificate for the same standard. In the context of these certifications, they receive yearly audits and compliance checks. Also, facilities are regularly audited by the corresponding control organisms.

In 2022, the improvement focus will be on the CIPH's emissions measurement methodology, as well as the carbon footprint calculation of Methanol and PIB products.

More Information: 2020 YPFS.A. Sustainability Report, Chapter 03: Climate Action, and Chapter 04: Sustainable Production.





3.1. CLIMATE ACTION

GRI: 103-1, 103-2, 103-3, 102-11

The nature of the activities we carry out as an electric power company give YPF and all its business units a key challenge in actions regarding climate. The company undertakes this as one of its sustainability priorities and is committed to drive an energy transition that is both fair and inclusive, promoting the incorporation of innovative solutions and achievable strategies, considering the starting points, skills, resources availability and the development needs of the country. Therefore, not only are the risks linked to climate change assessed, but also opportunities that open up new tendencies for each of the business segments.

The climate action impacts the physical risks of our operations and those related to the decarbonization of the economy, new technologies, new regulations at domestic and international levels, clients' demands and investors' expectations. The resilience of our business in the medium and long terms depends greatly on our being able to adapt them in an intelligent way to the various scenarios that this world challenge has presented.

YPF's climate change roadmap, which includes YPF QUÍMICA with its own specificities, is based on three pillars: GHG emission reductions in the oil, gas and by-products operations such as petrochemicals; cost-effective growth in the electric and renewable power business; development of new business and low carbon products jointly with compensation initiatives. The adaptation of the operations to future scenarios and potential risks is another central line of work.

Not only does climate change have an environmental impact, but also economic, financial and social impacts. This is why we have the following commitments regarding business management:

- operate.
- through YPF LUZ.
- change measures.

 \rightarrow Responsible and efficient use of natural resources and the energy consumed to

 \rightarrow GHG Emissions Reduction of the operations based on public and ambitious objectives. Cost-effective growth of the electric and renewable power business

 \rightarrow Drive the investigation and development of new technologies in new energies and low carbon products, in the matter of emissions reduction and capture, improving efficiency, optimization of resource consumption and other mitigation and adaptation of climate

 \rightarrow Develop risk analyses on physical impacts linked to climate change.

3.1.1 GREENHOUSE GAS EMISSIONS (GHG)

GRI: 103-1, 103-2, 103-3, 305-1, 305-2, 305-4, 305-5, 305-6 SASB RT-CH-110a.1, SASB RT-CH-120a.2

YPF QUÍMICA represents close to 4% of YPF's direct emissions and is located in the Downstream environment, which as a whole makes up 25% of the company's Tier 1 emissions. Although the reduction goals are defined by the company as a 30% target in 2026 compared with 2017, and improvement falls fundamentally on the Upstream segment, each business has its own objective to fulfill.

DIRECT GHG EMISSIONS **BY BUSINESS - 2021**



For more information on YPF Corporativo (Corporate YPF) climate strategy, refer to the YPF S.A. 2020 Sustainability Report, Chapter 03: Climate Action.



Upstream 50%

- Gas and Energy 25%

– Química 4% - Logistics 1%

Refineries 20%



The commitment to decarbonize operations comprises a series of actions, which in YPF QUÍMICA include:

- \rightarrow See king more efficiency in energy consumption.
- \rightarrow Increase the proportion of bought renewable energy.
- \rightarrow Minimize flared stack gas.
- \rightarrow Clean Development Mechanisms (CDM)

The emission inventories of our chemical complexes, developed through ISO 14.064 standards, are verified yearly by external auditors. The 2019 and 2020 inventories were verified by IRAM (or ISO, the International Organization for Standardization).

The main emission source of these complexes is the burning of fuels to provide energy for the productive processes. In 2021, the percentage of bought renewable electric energy was increased and we continue to focus on making our consumption more efficient.

(CIPH)

In Plaza Huincul, the main generating activities of GHG emissions are concentrated in the plant's methanol converter and auxiliary furnace. These include emissions and efficiency, related to the natural gas consumed to feed the two above-mentioned equipment, as well as the CO₂ emissions linked to the gas flaring. The first depend on the plant's load and the days it is in service. The second are fundamentally related to stoppages and the plant's start-up.

Regarding Tier 2, our electric equipment is not identified with a significant use in this complex.

ENSENADA INDUSTRIAL COMPLEX (CIE)

The main GHG direct emissions generating activities refer to:

PLAZA HUINCUL INDUSTRIAL COMPLEX

 \rightarrow Gas combustion or liquids in process ovens, furnaces and torches, which generate Tier 1 emissions.

 \rightarrow Electric energy emissions and steam bought to supply internal consumption.

GHG DIRECT EMISSIONS - SCOPE 1-



GHG DIRECT EMISSIONS - SCOPE 2-







CLEAN DEVELOPMENT MECHANISMS (CDM)

The company has two Clean Development Mechanisms (CDM)¹¹ to recover flared gas in the La Plata and Luján de Cuyo refineries, which are monitored every year. The residual gases are compressed and injected into the fuel system to feed ovens and furnaces, thus avoiding the need to use natural gas and fuel oil for heating.

In 2021 in the CILP, the industrial complex that includes YPF QUÍMICA's plant, the reduction of CO₂ emissions was 163,478 tons.

CO₂ REDUCTION	2021	2020	2019	2018	2017
LA PLATA INDUSTRIAL COMPLEX (CILP)	163,478	98,263	150,099	152,697	119,161

3.1.2 ENERGY EFFICIENCY

GRI: 103-1, 103-2, 103-3, 302-1, 302-3 SASB RT-CH-130a.1

YPF QUÍMICA's energy management is part of "The Climate and Energy Efficiency Action" corporate commitment. Within this framework, in 2017 YPF carried out an energy evaluation of the production processes in the company's three main segments (Upstream, Downstream and Gas and Energy), which serves as a baseline, and this allowed identifying where it's possible to increase efficiency. As part of these efforts, they started up an energy management system that was implemented based on the ISO 50001 standard, and an emissions and energy efficiency management committee was formed, in which all businesses participated. The committee articulates and coordinates the different actions developed in this environment.

There is a Downstream Plan of Objectives and Actions for Energy Reduction (in Spanish, POARE), and every year the actions or milestones are defined to achieve the medium-term objectives as to savings and dissavings. The POARE is agreed on by all the participating sectors and renders responsible parties' specific objectives. Monitoring is 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 grouped in different actions:

Savings and monitoring objectives:

Actions that imply savings that can be quantified; Definition and monitoring performance indicators.

- Optimization and monitoring of ener-2. gyperformance: Equipment inspection and availability, monitoring of exchanger trains, optimization studies.
- Good Practices: Actions shared with other 3. facilities, revision of consumption variables, lighting improvements.
- Strategic medium-term actions: Actions 4. that allow projects/works progress defined in the medium-/long-term plan or definition of projects (studies).
- Training and communication: Organizing 5. and carrying out courses, technical as well as orientation; Preparing reports; Promotion actions.
- ISO 50001: Actions related to the ISO 50001 standard's implementation/certification.

In the CIE and CIPH energy matrix, 98% covers 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 this Report's preparation, a migration of the ISO 50001:2011 Energy Management System to ISO 50001:2018 was achieved in the CIE.

Since mid-2020, work is going on at the Plaza Huincul Industrial Complex in the EMS (Energy Management Systems) implementation process under the ISO 50001:2018 standard, which will serve the whole complex.

The main actions in the CIPH developed during the 2020-2021 period are based on optimizing consumption and effective use of steam through operative control and periodic inspections of ovens and furnaces.

2022 Challenges:

- \rightarrow Adapt the CIE furnaces.
- \rightarrow Replace and change the cooling water system.
- \rightarrow The CIPH EMS certification under ISO 50001:2018 standard.













Medium- and Long-Term Challenges

- \rightarrow Maximize steam production.
- \rightarrow Redesign the condensing system of the Aromatics unit to reduce steam consumption.
- \rightarrow Optimize the Methanol oven unit.

The increase of CIE's energy consumption (in constant production) in 2021 in comparison to 2020 is owed to the stoppage events and startup of the Aromatics plant, which represents the highest energy consumption in all the complex.

It must be emphasized that during the startup processes, steam, fossil fuels and electric power consumption all increase. In the Aromatics plant, the Catalytic Cracking Reformer (CCR) is the main residual gas generator that feeds the fuel gas circuit, which in turn feeds the Aromatics ovens and auxiliary furnace services, and when this current sent to the torch is not produced until the plant's normalization, other fuels must be used, which increase the power consumption.

It is important to point out that of the CIE's total electric power consumption, the percentage from renewable sources was 29.9% in 2020 and ed.

In November 2020 and December 2021 the Los Teros and Cañadón León wind farms, respectively, began working, by which the percentage of renewable energy bought by the complex from YPF Luz increased.

In the case of CIPH's energy consumption, in 2020 the plant had an unplanned stoppage during the month of July due to the compressor turbine breaking for approximately 20 weeks.

40.9% in 2021. Legislation (Law 27, 191 - Fostering the use of renewable sources) establishes an obligatory 12% for the 2019-2021 period and 16% for the 2021-2022 period, therefore the legal requirement has been amply exceed-

ENERGY



% OF RENEWABLE POWER / % OF TOTAL POWER





0,20 뜨 0,18 🛩 0.16 0,14 G 0,12 0,10 0,08

- 0,06
- 0.04
- 0,02



3.2 SUSTAINABLE PRODUCTION

3.2.1 ATMOSPHERIC EMISSIONS

GRI: 102-11, 103-1, 103-2, 103-3, 305-7 SASB RT-CH-120a.1

The main sources of the total emissions of sulfur dioxide (SO_2) , nitrogen oxides (NO_x) , non-metallic volatile organic compounds (NMVOC), carbon monoxide (CO) and non-GHG particulate matter (PM10) are identified, as are the different estimates of emission methodologies of YPF operations. The management of the non-GHG atmospheric emissions is focused on minimization, and applying a treatment adapted to local regulations.

In combustion, practically all the carbon contained in the fuels is oxidized to CO₂, but due to the fact that the combustion process is not complete and the fuel can have other elements in its composition, these can be emitted as well as CO, NO_x , SO_x and particles.

These emissions are directly related to the complexes' level of activity, which explains the increase of same regarding 2021 compared to 2020, as in the latter year the Methanol plant was out of service; additionally, the stoppages and start-ups of the plants increase the gas levels due to process inefficiencies.

In 2021, the emission of NO_x increased due to the modification of the spreadsheet to update the American Petroleum Institute (API) guide for emission factors. Regarding SO₂, fuel oil is not used as fuel for the furnaces, therefore less emissions of this gas are generated in the CIE, and in the CIPH only the resulting SO₂ from the natural gas sulfur (1%) concentration is generated.

NON-GHG ATMOSPHERIC EMISSIONS





YPF

3.2.2. WATER MANAGEMENT

GRI: 103-1, 103-2, 103-3, 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 capture, consumption optimization and priority 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 Water.
- \rightarrow The business' Water Management Plan.
- \rightarrow Establishing water's cost

Water is considered a priority resource, therefore we work in each plant to optimize its use. We have improved the processes that use water, the treatments of effluents, and we have a maintenance plan to avoid breakages and losses in our pipeline infrastructure.

WATER VALUE

Through the Water Risk Monetizer tool we have established internal water prices, which must be used in the sensitivity analysis of all the critical investment projects, assessed by the Investments Committee. This internal price appraises, among other things, an analysis of the regulatory scenarios and the tariff changes that help us strengthen management. In 2021, surveys were carried out at the Ensenada Industrial Complex (CIE) and the Plaza Huincul Industrial Complex (CIPH) in order to establish a m³ internal price.

YPF uses the Aqueduct tool to establish whether the capture and discharge points are in water-stressed areas. In our complexes, neither of them are in zones with these characteristics; however, the province of Neuquén is under a water emergency, a condition that makes our responsible management even more important.

OUR 2020-2021 PERFORMANCE

The highest proportion of water used is for cooling the different processes, and to generate steam. Water and natural gas are the raw materials in the methanol production process, and in the linear alkylbenzene sulfonate (LAS) production process water is injected in the last



WATER MANAGEMENT

For more information on YPF Corporativo (Corporate YPF) water management, refer to the YPFS.A. 2020 Sustainability Report, Water Management.



YPF
stage of the process to halt reaction in the stabilization section of the product.

Ensenada Industrial Complex

La Plata Port water plant provides water to the La Plata Refinery, Química, and the Industrial Lubricants and Specialties Complex. The external¹² captured water is processed to obtain demineralized water for furnaces and steam. and rough water 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 us with service water from their mains.

The discharged¹³ water is monitored twice a day in order to comply with what is established in the province of Buenos Aires' Water Authorities' Resolution 336/03 and Complementary Resolution 335/08. All effluent treatment systems are set up to comply with said rules. The water is discharged into Canal Oeste, which flows into the Santiago River, and in turn, this flows into the La Plata River. Canal Oeste was built to carry out maneuvers in the La Plata port and currently is the receptor of the Refinery's and Química's effluents. There is a contract dedicated exclusively to inspecting tipping and if there should be any spills, there are barriers to contain and vacuum the product.

As part of the La Plata Industrial Complex, the CIE is included in the effluents system integral reconversion plan. 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 improving the quality of the effluents.

Plaza Huincul Industrial Complex

The water used is captured from surface sources, in this case the Neuquén river, and is supplied by a public organism, as well as a lesser percentage from the Neuquén River plant, owned by YPF. It 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 to a water course some 250 meters away from the facility.

Water is transferred to third parties from our own capture and treatment plant. These transfers respond to YPF's agreements with other companies, and a fee is charged for transferring this water. The quantities transferred were 26,520 m³ in 2020 and 22,020 m³ in 2021.

Regarding discharges, the place it is tipped is a water course where several types of industrial effluents are discharged from the town. The

industrial discharges are 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 northeast of the source. The quality, control and monitoring of the discharges are defined by the enforcement authority, according to Provision 371/15 established by the Province of Neuquén Water Resources Department. In YPF QUÍMICA there is an exclusive unit for the treatment of demineralized water for the process, and the water discharge is a product of this demineralization. This is neutralized for its later discharge.



> **ACKNOWLEDGED AS A HUMAN RIGHT, ACCESS TO FRESH** WATER IS ESSENTIAL FOR HUMAN BEINGS' LIFE AND WELLBEING. THE QUANTITY **OF WATER WITHDRAWN** 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.



3.2.3 WASTE MANAGEMENT WITH A CIRCULAR ECONOMY FOCUS

GRI: 103-1, 103-2, 103-3, 306-1, 306-2, 306-3, 306-4, 306-5 SASB RT-CH-150a.1

In YPF QUÍMICA we have a commitment to minimize generating waste in our operations. Innovation forms part of our management, as does the need for potential reuse and recycling actions of materials. Every year we move forward on initiatives that are created with the objective of complying with the company's challenge of increasing the waste recovery and circular economy actions.

YPFS.A. has an ambitious 2022-2026 Strategic Plan, with the objective of substantially increasing the reuse + waste recovery percentages (based on 2017-2019 average line), increasing the recovery rate of Hazardous Waste + Non-Hazardous Waste.

In the case of our operations, 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.

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

- project.

The Complexes generate different waste. The Ensenada Industrial Complex (CIE) generates 95% of the total and all hazardous waste is sent to be eliminated by a third party.

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

 \rightarrow Hazardous waste recovery: Export spent catalysts with precious metals (CIE and CIPH) and initiatives of selling spent catalysts with common metals.

 \rightarrow Chemical recycling: a pyrolysis plant

WASTE





ENSENADA INDUSTRIAL COMPLEX (CIE)

In this complex, the highest volume of hazardous waste (52%) are the muds coming from the effluent treatment pools, they are spun and end up in fill-ins. An aluminum catalyst is used for the olefins generation process, the catalyst is later neutralized with caustic soda and degraded; the leftover soda is treated in its own plant which during 2021 was out of service. As this generated an increase in the level of this waste, it was sent to external treatment.

Regarding the spent catalysts, there are two different treatments according to their content:

- Precious metals Pt, Pd: Sent to a third a. party for their recovery.
- Different metals than Pt, Pd: Sent for final disposal

In the case of solid urban waste, a management system is used to achieve proper on-site segregation that ensures its recovery and recycling through authorized companies.

(CIPH)

Hazardous waste is basically generated in the plant shutdowns, due to the elements that are chemically contaminated or through the washing of equipment. This is when opportunities arise to reduce waste and avoid generating it, as at the start of revision and maintenance of the security and facilities systems. The non-hazardous waste is associated with the solid urban waste.

In 2020 there was an increase in hazardous waste due to the methanol plant shutdown, mostly insulation blankets.

CIRCULAR ECONOMY

Within the company's sustainability priorities, operational excellence has a fundamental role in setting up a company culture. It is within this environment in which sustainable production activities are promoted, focusing on circular economy activities.

PLAZA HUINCUL INDUSTRIAL COMPLEX

HAZARDOUS WASTE BY TYPE (METRIC TONS)



In 2019, YPF launched the "Economía Circular" (Circular Economy) project, to boost a culture within the whole company based on this model inspired on nature's cyclical character. The initiative is seeking opportunities and risks inherent to the goods and services value chain, starting from its design to the end of its 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 by 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 tensoactives 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 using plastic waste generated in YPF's different businesses' activities development, as well as plastic waste from other players in the chem-

ical and petrochemical industry linked to the company, such as clients, suppliers, competitors, etc., with the goal of creating our own neutral plastic footprint and cooperate with reducing this in Argentine industry.

The goal is to move forward with installing a small-scale unit that processes between 500 to 700 tons per year of post-consumption plastic, with an estimated start-up in the last quarter of 2022. This first step will generate a learning curve, allowing us to achieve an industrial-level process.





3.2.4 SPILL PREVENTION AND CONTROL

YPF has a spill prevention and control system that includes a prevention investment plan focused on the integrity, maintenance and improvement of facilities and pipelines, in addition to a response procedure to emergencies, and a computerized communication system that automatically alerts the environmental authority regarding a reportable incident. This system is applied in all the company's business units, including 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 evaluate the environmental state of the facilities.

In 2020 and 2021, work continued on the risk mitigation plans, including inspections of the pipelines and maintenance of tanks with risks, a priority for all the company.

In YPF QUÍMICA we have 177 tanks distributed in our complex.

Opening by plant:

- \rightarrow Methanol (CIPH): 5 tanks
- \rightarrow CLAB (CILP): 21 tanks
- \rightarrow PIB (CIE): 24 tanks
- \rightarrow MAN (CIE): 22 tanks

Therefore in YPF QUÍMICA's case, in 2020 we did not have either major or minor spills, while in 2021 there were no spills larger than one barrel, although we had to manage four hydrocarbon spills less than a barrel each, with a total volume of 0.16 m³.



 \rightarrow Operative Logistics (CIE): 105 tanks







OGG OCCUPATIONAL HEALTH AND SAFETY

SDGs:8

YPF

MATERIAL TOPIC:

• Occupational Health and Safety



GRI: 103-1, 103-2, 103-3, 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

YPF QUÍMICA's priority is to guarantee care for the health and safety of all those who work in the organization, as well as the trust and integrity of its assets, businesses and projects. To that end, the YPF Group implements occupational, industrial and process risk management policies focusing on adopting timely and indispensable preventive actions.

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

Activities are developed within the framework of the YPF Operational Excellence Policy and are focused on three fundamental aspects of the management system:

- \rightarrow Identification and mitigation of occupational, industrial and process risks
- \rightarrow Strengthening the company's emergency responsiveness
- \rightarrow A continuous improvement

The Sustainability, Environment, Health & Safety (SASS) management plan is revised and executed yearly, focusing on each business. YPF QUÍMICA also has a MASS (Environment, Health & Safety Goals) Manager, who reports to Operation Management and to the SASS Corporate Vice Presidency.

The corresponding monitoring for activities to unfold within acceptable risk values is being implemented, including the systematic preventive observations, and the fact that every person detecting a risk in the development of activities can, on his or her part, report it to their reporting line and request the task be suspended. Reports that are presented and discussed in safety committees are also carried out, and risks are worked on, as well as action plans and the barriers to reduce them.

Furthermore, all personnel working at YPF QUÍMICA - whether our own or under contractis subject not only to complying with the applicable legal demands but also to the corporate requirements and environment, health and safety goals (MASS) and to those defined by the Contract Resources area who will be hired by the company. Each industrial complex forms its Safety Committee, in which the industrial complex manager and top reporting line participate, and they analyze the detected deviations and determine the risk mitigation plans and potential negative impacts that may affect the business operation.

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

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

OCCUPATIONAL HEALTH

YPF QUÍMICA facilities are included within YPF S.A. Health Service Management. This department acts above all for its own personnel, ensuring that the legal requirements of the Occupational Risks Superintendency (SRT) are complied with. Additionally, it implements the domestic management rules on healthy occupational environments, and answers to medical emergency situations and attention to illnesses of those who are working in the company facilities.

Every year, the Health and Safety areas jointly prepare the occupational risk maps of all personnel to establish the specific health exams. According to this information, the occupational

To learn more about the YPFS.A. health and safety management, refer to the 2021 **Sustainability Report** of YPFS.A. in the "Health and Safety" section.







risks insurance company (ART) establishes the medical evaluations that must be carried out. The Medical Service is responsible for its enforcement and monitoring. In 2020, due to the limitation of on-site work, the SRT extended the deadlines for risk examinations, prioritizing essential personnel in refineries, terminals and gas plants.

The Management Indexes reported by Occupational Health are:

- \rightarrow Compliance with periodical medical examinations index (ICEP)¹⁴. In 2020, 97% of the personnel were attended, and in 2021,83%.
- \rightarrow Compliance with risk examinations index (ICER)¹⁵. In 2020 they were proposed by the health emergency, while in 2021, 94% were attended.
- \rightarrow Training for employees in the following topics: CPR/First Aid; Cardiovascular risk factors; Emerging illnesses (COVID-19; heat stroke; vector-borne diseases, etc.)

In YPF QUÍMICA a mixed committee for monthly meetings was formed and in which different areas participate, such as Operative Safety, Occupational Relations, plant chiefs, contract inspectors, risk analysts, trade union delegates and Occupational Health, in which matters regarding daily work are brought up, and workers' proposals, in order to achieve a rapprochement among all the parties involved and as a team reach a consensus on actions for the identified improvements.



PF





4.1 OCCUPATIONAL **HEALTH AND SAFETY** CULTURE

Creating a solid safety culture shared by each person who is a part of the company operations is a key factor in preventing accidents.

We generate this culture through our training and awareness plans, based on our 10 Life-Saving Golden Rules. We developed pieces of training for those who have operative positions focused on the 10 Life-Saving Golden Rules and taking into account the position requirements and their role in case of emergencies.

In the case of people under contract, each year special courses are designed, which also respond to the specific needs in each position.

During 2020, thanks to the pandemic context, the virtual pieces of training were expanded not only centered on the base personnel, who are the most exposed, but a post-graduate safety culture course was offered at managerial levels, by the Institute for Industrial Safety Culture, a multinational organization based in France and jointly through an agreement with the University of San Andrés in Buenos Aires, Argentina. In addition, a training program for senior management was offered by the same academic entity.

We created and executed several internal communication campaigns to boost prevention culture. The contents are spread through online platforms such as Workplace and specific actions are performed in each area. The topics of health, safety and environment are incorporated in yearly surveys carried out for the personnel as well as by the periodic CEO communications to the organization.

YPF S.A. has a formal hazards identification process and evaluation 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 is based on exposure and probability. For each evaluated risk, control measures are implemented and these will depend on the evaluated risk level.

In 2020 and 2021 we had no fatalities and the quantity of computable accidents with loss and without loss of workdays has lessened, and therefore improved the health and safety indicators of our own personnel and those under contract.

ACCIDENT FREQUENCY RATE (AFR) - TOTAL (LTIFR)

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





4.2 QUALITY SERVICES FOR HEALTH AND SAFETY

The vision of an occupational health service is to be efficient, centered on an integral health care of people and a benchmark at a nationallevel. Our benchmark is the Occupational Health Management Rules, the goal of which establishes the criteria and standards of occupational health that allow the company to ensure healthy occupational environments, attention and monitoring evolution until their recovery, both in illnesses related to work as to justifiable illnesses, and at the same time offers answers to medical emergency situations with professional health caretakers and high complexity health equipment, ensuring firstclass, efficient medical attention.

In 2020 we celebrated three years certifying the Quality Guarantee for Medical Attention, Patient Safety and Efficiency Program granted by CE-NAS (Specialized Center for Health Standardization and Accreditation)¹⁶, with the objective of improving the quality of medical attention, safety of the people and process efficiency.

Due to the COVID-19 pandemic and the obligatory social lockdown situation at a national level, we made a joint decision with CENAS to extend the validity of the certification for one more year, carrying out virtual audits with the eight Regional Medical Coordination Offices and the Health Units certified in 2017, and in this way

we certified compliance with standards at both the legal and operative levels.

This certification was extended for one year, and in November 2021 audits were carried out at the eight Medical Coordination Offices and 25 Health Units, reaching a compliance standard of 90 and 95%, specifying the certification as valid up to November 30, 2024.

Particularly in YPF QUÍMICA's Medical Service, all quality standards are complied with as framed within the program's certification process. Currently it is undergoing the certification process in the above-mentioned Quality Guarantee for Medical Attention, Patient Safety and Efficiency Program.

As part of the control actions for the maintenance of the Occupational Health Certification and in compliance with the Ministry of Health standards, the 2020 internal audit program was fulfilled.

In YPF QUÍMICA the COVID-19 pandemic was our personnel's main type of ailment, while in 2021 it was 100% of the recordable cases of occupational diseases, with one person's death caused by the same illness.

OWN PERSONNEL	2021	2020
Number of deaths caused by a work- related ailment or illness	0	0
Number of cases of recordable work- related ailments and illnesses	41	19
Main types of recordable work- related ailments and illnesses	Occupational disease COVID-19: 100% of cases	Occupational disease COVID-19: 80% of cases
CONTRACT PERSONNEL	2021	2020
Number of deaths due to a work- related ailment or illness	1 (COVID-19)	0





> CREATING A SOLID SAFETY CULTURE SHARED BY EACH PERSON WHO IS A PART OF THE COMPANY OPERATIONS IS A KEY FACTOR IN PREVENTING ACCIDENTS.



4.3 PREVENTIVE PROGRAMS

Once adapted to the pandemic context, the main preventive programs of the company continued to develop, the Tobacco Cessation and Cardiovascular Prevention programs (see attached table).

Based on applying the Quality Guarantee for Medical Attention, Patient Safety and Efficiency Program, throughout all YPF QUÍMICA's facilities different health education and illness prevention campaigns were carried out. The objective is to contribute to people's integral wellbeing as well as occupational conditions, increase workers' motivation, increase their productivity, attend to critical and emergency situations, cooperate in the prevention of risk situations and fundamentally, and watch and care for the psycho-emotional integrity of the workers. Conferences and workshops on prevention, anxiety, stress physiology and accident risks are offered. In turn, grief workshops are on offer, in-house psycho-metric test evaluations for drivers are carried out, and we also have a prevention Health Library.

TOBACCO CESSATION

CARDIOVASCULAR PREVENTION

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

- The Cardiovascular Prevention Program detects the people in our company with one or several cardiovascular risk factors, which increases the probability that these people may fall sick. In this way they are incorporated into a followup plan to attempt to control them, carrying out a recommended treatment follow-up that is carried out by the patient's primary doctor.
- The highest prevalence percentage that shows up in yearly examinations are alterations of lipid metabolism, hypertension, sedentary and overweight factors. Monitoring the people affected by these deviations was carried out, referring them to the corresponding specialists as well as a developmental monitoring of the cases.

Some of the specific main campaigns carried out were:

- \rightarrow Take care of your heart (prevention of cardiovascular illnesses)
- \rightarrow Diabetes
- \rightarrow Arterial Hypertension
- \rightarrow COVID-19 (own and under-contract personnel)
- \rightarrow COVID-19 (specific training for health personnel)
- \rightarrow Emotional Health





4.4 PANDEMIC MANAGEMENT: CARING FOR HEALTH

One of the greatest 2020-2021 challenges was to reconcile an operational continuity with caring for people's safety and health within the pandemic context. The company managed to do this through an appropriate application of health protocols and a series of measures allowing it to adapt. The key to this task was a speedy responsiveness and the coordination among the various areas and business units.

In January 2020, YPF began sending out recommendations regarding the emergency to all personnel through their information network channels.

In all the company's assets and businesses the number of on-site people (our own and under contract) were reduced by 75%, and only the essential minimum personnel stayed. Cells were formed by the essential personnel carrying out fundamental work (for example, in the industrial complexes and other facilities), protecting the alternate personnel and training new people in case of a potential reduction in staff due to health problems. At the same time, communications and recommendations were sent to suppliers and contracted companies.

Implemented Actions:

- \rightarrow Telework for the non-essential positions.
- → COVID-19 Risk Committee.
- \rightarrow A weekly analysis of the developing health situation, defining necessary actions and protocols to protect the personnel's integrity.
- \rightarrow Virtual pieces of training by expert infectologists and epidemiologists were offered for all Occupational Health area personnel.
- \rightarrow Every week, Health Management applied updated protocols and monitoring of the patients.
- \rightarrow Containment places were opened up to handle the uncertainty and to promote emotional wellbeing measures.
- \rightarrow Thermal cameras and infrared thermometers were installed to control workers' temperature when they came to work, in order to carry out daily screenings of their temperature.

 \rightarrow According to what was established by the Need and Urgency Decree (DNU), people identified as forming part of high-risk groups were told to stay at home, being able to work remotely from home. A total of 47 people were exempted.

All decisions were aligned with the measures communicated by the authorities, who established that the oil and gas industry was authorized to work under the minimum on-duty modality.

Information and training campaigns were reinforced through posters, and digital and videographics.

- \rightarrow Recommendations and explanations regarding the proper way to wash hands, and the ergonomic postures when working from home.
- \rightarrow Appropriate approach tools in our Emotional Health and Prevention Programs for substance abuse, diet recommendations and physical exercise.

The COVID-19 protocols were constantly revised and updated, the company created a document in which all adopted measures were grouped together, recommendations and definitions on everything concerning the pandemic, and these were updated according to the protocols issued by the National Ministry of Health.

Counting own YPF QUÍMICA¹⁷ personnel and contracted personnel, by the end of 2020 the Occupational Health area was monitoring:

- \rightarrow 77 confirmed cases
- \rightarrow 77 recovered cases
- \rightarrow 50 cases in isolation due to suspicion of contagion
- \rightarrow 115 cases in isolation due to cohabitation or in close contact

Of the total confirmed cases. **90%** occurred out of the workplace environment. In **2020** no deaths were reported associated with COVID-19.





Regarding 2021, the reports were:

ightarrow 146 confirmed cases	Goals
\rightarrow 145 recovered cases	
→ 83 cases in isolation due to suspicion of contagion	Actions carried o
→ 95 cases in isolation due to cohabitation or close contact	
Of the total confirmed cases, 92% occurred out of the workplace environment. In 2021 one death was reported associated with COVID-19 complications.	
From Emotional Health two fundamental strategies were implemented to face the crisis, one was related to approach and the other to prevention.	Impact



	APPROACH STRATEGY	PREVENTION STRATEGY
	This strategy is related to the design and communication of scientific content that accompanies people in adopting specific measures to care for their health and wellbeing.	This strategy is aimed at specific interventions, either in or for teams, faced with conditions that require this, suc a space for containment, listening and recommendation
out	 Online free therapy by video-conference, together with YPF's health insurance company (OSYPF), for all personnel. 	 Accompanying people and teams especially affected by the COVID-19 effects.
	 Recommendations for emotional health 	 Emotions management workshop for gas station mar
	 The Happiness Quartet versus COVID-19. 	 Awareness workshops regarding emotional
	 Managing emotions in COVID-19 times. 	health within the pandemic context.
	 Wellbeing Workshops jointly with OSYPF. 	 Practice of open mindfulness from Monday to Saturda 8 a.m., together with the Mindfulness and Health Soc
	Trivia for managing stress.	 "COVID Breakfasts": Containment space for
	Cycle on Emotional Health in Uncertain Times: 10 theory and	the health services medical team.
	practice meetings to register emotions and manage behaviors.	 Free art therapy and bioenergy gatherings jointly with SENS (Health and Human Development).
	More than 1,000 on-site people came to the Cycle on Emotional Health in Uncertain Times, and the videos were seen by 3,000 more.	More than 500 actions were carried out in response to the demand.
	The cycle consisted of 10 weekly meetings	

The cycle consisted of TU weekly meetings.









PSYCHOACTIVE SUBSTANCE ABUSE PREVENTION PROGRAM

It is public knowledge that the effects of the pandemic and the social, preventive and obligatory lockdown could create excessive consumption and relapses in people who have had substance abuse or addiction.

Taking these circumstances into account, the mental health team contacted all our own employees who had entered the program since 2017 up to the present with the objective of learning their current state of mind in the pandemic context, their bond with loved ones and people they lived with, treatment continuity and frequency, the need to start the treatment again in case it had been interrupted, the presence of symptoms that showed an increase in consumption impulses, among other indications.

Each case is individual and according to the situation we took charge and created a listening and orientation space to guide people regarding specialized treatments, link them to the health insurance company to cover the necessary treatment, re-direct the treatments to psychiatric and/or psychology appointments, monitor each of the cases and encourage them to keep to the treatments.

Since in 2020 face-to-face appointments were lowered to the minimum on-duty modality, a program for fulfilling EMP (preventive medical evaluations) was put in place, a shorter version compared to previous years; this planning was adjusted to the COVID-19 pandemic context and diagramming face-to-face appointments.

In 2020 and 2021 the goals set regarding the EMPs were carried out according to the personnel affected by operations, and always related to the ongoing pandemic. The company maintained the Program's activities daily, understanding the importance of the preventive actions regarding carrying out evaluations on people who continued their face-to-face occupational tasks as well as more monitoring of

PREVENTIVE EXAMINA

Drugs Alcohol those tasks described as more critical.

Furthermore, the monitoring through tele-medicine was outstanding in cases detected as positive in previous years (2017, 2018 and 2019), with the goal of accompanying and giving a professional orientation in a context that could create a certain flare-up of the illness.

As to new cases, the low percentage of positivity to psychoactive substances in the examinations carried out at YPF QUÍMICA¹⁸ can be highlighted, the lowest since the start of this initiative.

TIONS	TOTAL CAF	RRIEDOUT	% PERSON	INEL	% POSITIV	ETESTS
	2020	2021	2020	2021	2020	2021
	571	887	68%	88%	0.35%	1.24%
	233	222	28%	22%	0.42	0%



4.5 CRITICAL INCIDENT RISK MANAGEMENT

GRI: 103-1, 103-2, 103-3, 102-30 SASB RT-CH-540a.1

The system for the management of emergencies and crises is carried out in the framework of internal rules (Operational Excellence Policy¹⁹), focusing on the prevention and strengthening of resilience when unwanted events occur. It aligns the Prevention, Preparation, Response and Recuperation activities of the following disciplines:

- \rightarrow Response to Incident Management
- \rightarrow Business Continuity Management
- \rightarrow Crisis Management

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

The figures on the table represent the number of risks detected by type and class.

YPF QUÍMICA

TYPE OF RISK Operational Risks Human Resource Financial Resource Commercial Envir Governmental and Regulatory Macroeconomics and Market Social Environme Technology - Safe Total

We have identified those higher-risk scenarios in each of their plants, in which a deviation of the process could create a higher consequence on people, environment, assets, processes or image.

These scenarios are reported at the corporate level and periodically the state of the safeguards are updated on-site, with the goal of controlling the risk and it being accepted publicly by the company.

	R	S	K	S	U	Μ	Μ	Α	R	Y
--	---	---	---	---	---	---	---	---	---	---

	INHERENT					RESIDUAL				
	MINOR	MODERATE	HIGH	URGENT	EXTREME	MINOR	MODERATE	HIGH	URGENT	EXTREME
5	15	4	6	3	0	21	6	1	0	0
S	3	2	0	0	0	5	0	0	0	0
ces	0	1	3	0	0	3	0	1	0	0
ronment	2	3	1	0	0	4	1	1	0	0
d	0	0	7	0	0	1	5	1	0	0
	2	2	4	0	0	1	7	0	0	0
nt	0	0	0	0	0	0	0	0	0	0
ety	2	1	1	0	0	4	0	0	0	0
	24	13	22	3	0	39	19	4	0	0

The management of Planning and Supply, Quality Management, Commerce, Management Control and Business Development participate in this process. After identifying the risk, the responsible management is defined, the main process and the related processes, the risk is described as well as exposure ²⁰ to that risk, the probability of this occurring and the consequences. With this data a risk value is calculated, as well as a risk level. The following levels have been defined: minor; moderate and high; urgent and extreme.

After the evaluation and the actions proposal of Improvement/Mitigation/Contention/Reduction, the risk level is re-evaluated and is presented as Residual.

The high risks faced by the Business are:

- \rightarrow Shutdowns of our own plants that were unforeseen or modifying those scheduled. Specification problems in products.
- \rightarrow Changes in the commercial environment.





- \rightarrow Valid client claims creating financial compensation.
- \rightarrow New decrees, laws that are not in force that could impact the domestic or international planning process.

This matrix is revised at least once a year and is within the ISO 9001 process.

We have a generation and updating program of operative risk studies of the process (HAZOP), that covers all processes and the relevant services of the operative plants. Each study is current for 6 years - if the process is not modified-, and in this time frame the study must be carried out again in order to revise the identified hazards and the risks evaluated. The monitoring of the risk studies plan of compliance and the implementation of the actions included is found within the indicators sent to the VP Downstream level.

We also have software to carry out the change management on plant processes called MOCJ5. It was designed to fulfill the standards requested by the Risk Management internal rules in industrial assets and changes. A change management cycle covers the steps of identification, approval, analysis, quantification of the risk, acceptance of the risk level, impletion.

Risk management is framed and verified by compliance with the ISO Standards certification requirements detailed in the appendix.

AUDITS AND OUR MANAGEMENT EVALUATION PROCESSES

The work points on YPF QUÍMICA Safety Processes are audited in several audits, among the most important being:

mentation and communicating to interested people and closure. During this cycle multidisciplinary teams dedicated to evaluating the proposal participate, from each expertise sec-

NVIRONMENTAL CARE PROGRAM (PCRMA®)	AUDIT TO EVALUATE COMPLIANCE WITH THE RESPONSIBLE	
	ENVIRONMENTAL CARE PROGRAM (PCRMA®)	

• In this audit, points such as those regarding Industrial Risks Management and Change Management of process modifications are evaluated.

AUDIT TO EVALUATE THE SAFETY PROCESS STATE IN THE FACILITY

• This audit is carried out three times a year, currently by Broker MARSH; during this audit international experts in Process Safety come and visit, and they revise management regarding Risk Management in the facilities, and cover topics such as: 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.

INCIDENTS AND INDICATORS OF MONITORING PROCESS SAFETY

In YPF QUÍMICA we apply a categorization methodology of incidents in the Process Safety, basing this on the API754 recommended Practice, and we reflect the concepts of this recommended practice in the internal rules. We have a software dedicated to accomplish this report, categorization and investigation of incidents called SIGEO.

Regarding forming an incident investigation committee, its severity is taken into account, and we increase the level of the personnel who form the investigation group according to the

increase in severity of the incident that took place. As part of the quality program, an exhaustive monitoring and investigation of the incidents takes place, as well as implementing improvement actions that stem from the above. The closing time frame of the investigations is supervised according to the rulings' request, as well as the compliance of time frames with regard to the actions for improvement.

We have monthly safety process performance indicators, which are reported to Downstream and are reviewed in the Safety and Environment Committee of the Downstream Vice Presidency. The established KPIs serve to





know the state of the protection layers of the process to ensure that they are duly maintained and active, for example: console alarms management, critical elements inspection management, mechanical pressure relief management, monitoring risk studies, monitoring of resulting actions, among others.

PROCESS SAFETY INCIDENTS COUNT (PSIC)	UNIT OF MEASUREMENT	2021	2020
PSIC Tier 1 ²¹ Incidents	Quantity	2	3
PSIC Tier 2 Incidents	Quantity	2	3
Total PSIC Tier 1 ²² Rate	Rate	0.12	0.18
Total PSIC Tier 2 ²³ Rate	Rate	0.12	0.18

TIR 1 Incidents. On July 4, 2020, in the CIPH there was an unexpected plant shutdown due to abnormal behavior of operative variables (lasting from July 4, 2020, to November 22, 2020). After analyzing the event, modifications were proposed in the plant, generating procedures to take earlier decisions, new risk studies and comprehensive training for operators. These recommendations have been partially implemented at the time of the report. In July 2020 the high-pressure steam system of the methanol unit began producing vibrations due to sodium hydroxide and solids entering the system and the reformer pipes and lining. This provoked serious damage to the plant's main turbine and broke one of the main heat exchangers.

As a result, the methanol unit had to be shut down for about a four-month period, and it was started up again in November 2020. In November 2021, the company came to an agreement on the final payment with the insurance companies regarding this extraordinary event occurred in the methanol plant in 2020. The cost of the material damage and loss of profits came to 20.5 million dollars. As a form of an advance on the final loss, we registered positive earnings of 1,503 million pesos and 454 million pesos respectively for the years ending December 2021 and 2020. During 2021, we earned 1,889 million pesos.



56



05 PEOPLE AND SHARED SOCIAL VALUE

SDGs: 4, 5, 8, 10, 16, 17

MATERIAL TOPICS:

- HUMAN RIGHTS
 TRAINING AND DEVELOPMENT
 TALENT MANAGEMENT
- DIVERSITY AND EQUAL OPPORTUNITIES
- PROMOTION OF TECHNICAL EDUCATION
 IMPACT AND RELATIONSHIP WITH THE COMMUNITIES
 RESPONSIBLE SUPPLY CHAIN MANAGEMENT



5.1 PEOPLE AND CULTURE

GRI: 103-1, 103-2, 103-3, 102-41

YPF QUÍMICA promotes a work environment based on equal opportunities, diversity and people's development.

Due to the pandemic, during 2020 the majority of our initiatives were framed as continuing with the management of priority matters, such as caring for people's health, accompanying the company's adaptation plan, management of the personnel's talent and costs, as well as moving forward with the organization's responsiveness supported by computer technology.

We uphold several practices that are basic for people management in the company. We carry out our activities according to the labor laws, the current collective agreement rulings and the corporate policies of occupational relations, promoting a respect for freedom of association and maintaining an open dialog with the organizations which represent them.

76% are our own personnel, and 24% are under contract. 95% of our own personnel live in the areas where our operations are located. In 2021, women represent 6.6% of our own personnel.

Number of people



Number of people



OWN AND CONTRACTED PERSONNEL

OWN PERSONNEL BY REGION

OWN PERSONNEL BY GENDER

Number of people



		YPF QUÍMICA	
	UNIT	2021	2020
2-30 Collective Bargaining Agreements	% under agreement	87%	88%
Total own personnel		401	411
Own personnel under agreement	quantity	350	363
Non-pay scale own personnel	quantity	51	48



350



5.1.1 DEVELOPMENT AND RETENTION

GRI: 102-7, 102-8, 103-1, 103-2, 103-3, 401-1, 404-2, 404-3, 405-1

We promote our workers' development offering the necessary resources and opportunities, allowing them to pursue the necessary competencies for their professional and personal growth.

In YPF QUÍMICA we have talent management practices based on evaluating performance and identifying people's potential, and with this as a starting point we build a talent map, succession tables are defined, and individual development plans are made with different actions, such as assigning them projects, training and mobility that lead to accompanying our employees' professional plans.

In 2020, adapting to the context meant evolving our talent management processes to achieve more agility, assertiveness and to match a digital world, and to this end we added an emphasis on talent that integrates new abilities and skills requiring a rather unstable environment such as in a learning speed, flexibility and adaptation.

Our focus has been centered on promoting more experimental development modalities through pieces of training, rotation schemes, tutorials and other tools. Moreover, our intention is to strengthen virtual learning by implementing asynchronous models that combine e-learning with virtual content, which has been key to increasing knowledge delivery.

Downstream began a cultural transformation process toward an agile modality, going from a hierarchical modality to creating working cell roles, with a variety of teams that are organized around projects; this entailed a great challenge within an industrial context. As part of the challenge of creating a Business adaptable to the new VUCA²⁴ and BANI²⁵ contexts, an innovative mentality is developing in the Vice Presidency's DNA.

PERFORMANCE ASSESSMENT

100% of direct employees had an individual performance assessment in 2020.

To adjust ourselves to the pandemic, unlike previous years, voluntary challenges were set for all workers instead of goals.

The results helped shape development plans, make improvements and adjust wages as needed.

In 2021, the performance process resumed its usual form, setting individual goals and making performance assessments for all the relevant population.

PERFORMANCE ASSESSMENT	2021	2020
By sex		
Men	100%	90%
Women	100%	100%
By job category		
Executive officers	100%	100%
Managers	100%	89%
Supervisors	100%	100%
Analysts and coordinators	100%	100%
Higher staff under bargaining agreement	100%	88%
Ground-level staff under bargaining agreement	100%	90%

LEADERSHIP STRENGTHENING

We start by setting the profile of a YPF QUÍMICA leader, one who approaches the required leadership from four equally important points of view: strategic, results, people and self-leadership, and we are able to define a Leadership Ecosystem of initiatives and programs to develop the skills and behaviors for leaders to effectively manage their teams, and to create peer

networks and spaces where people can learn.

For an approach on strategic and result-oriented leadership, the Comprehensive Management Program (PGI) for supervisors is taught together with the Di Tella University, and the Business Management Program (PMN) for managers is taught together with UBA and the IAE Business School.

In turn, people leadership and self-leadership are trained with the programs "Líder que moviliza (Leader that mobilizes)" for supervisors responsible for staff, and "Líder que inspira (Leader that inspires)" for managers. We kept these programs in 2020, giving them 100% online, and so was the case in 2021.

In 2020 YPF launched its LIFE program, for accelerating the development of women with potential, preparing them for leadership positions. It includes individual and group experiences that prepare women for the next steps in the career, such as workshops, self-knowledge exercises, individual and group coaching and activities with direct and indirect supervisors, as well as with leaders from other companies. This program has a duration of 6 months with 24 participants per edition. In 2020 and 2021, the program had three participants from YPF QUÍMICA (two in the 2020 edition, one in the 2021 edition).





During 2020 the focus was on designing and starting actions that were able to address the challenges of leadership under the "new normal," such as leading remote teams, leading the uncertain, support and co-responsibility.

We created spaces where people could meet easily and smoothly to discuss everyday challenges that were causing uncertainty:

- \rightarrow Liderar Café (Lead Café) and Conversaciones RH (HR Conversations).
- \rightarrow "Liderazgo en un click" (Leadership one click away): a guide with over 300 suggestions for the YPF Leader's selfdevelopment.
- \rightarrow We launched "iLead," a digital simulator for all collaborators taking on their first leadership position of their professional careers.
- \rightarrow We increased the posting frequency on the Leaders Group in WorkPlace, including videos, interviews, documents and courses on the emotional management of a team, compassion, empathy, resilience, among other topics.

In 2021 the program Leaders in Action was launched, for supervisors to be able to develop and enhance those behaviors that they need to have. And the Leader Agenda was strengthened. This Agenda implements the People Leadership action line and puts this type of leadership in the limelight of team management.

As part of the Leadership ecosystem we highlight the Harvard Manage Mentor tool, a self-learning online platform developed by Harvard Business with 12 courses on leadership and management skills in Spanish. It serves 500 users with a one-year access, and its satisfaction rate is high (4.3/5). Executive officers and managers who request so may access a coaching support program.

Further development tools, which have their own kits, are shadowing, based on observation, and castling, based on the exchange of functions. We also have a guide for each worker to design their own individual development plan, and an interactive leadership development app on padlet format²⁶.

MENTORING

In 2019 YPF carried out its first mentoring experience for great potential, in order to accelerate their development within the company. 22 pairs were set up, and 40% of those *mentees* moved up a category during the year, while 36% changed positions. The program was halted in 2020, because of the pandemic and the context of the company, and it was resumed in 2021 with a second edition, once again with 22 pairs who ended their cycle in November.

Seven people participated for the whole Downstream Vice Presidency, two of whom belonged to the YPF QUÍMICA team.

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 amplify people's skills and promote a high-achievement culture, we do so by providing competitive compensation and benefits.





NEW HIRES Quantity

During 2020 we had to adjust our traditional recruiting and selection processes into virtual ones to be able to continually develop our business in the COVID-19 context.

The company has a continuous, systematic process of identifying talent. This practice makes it possible to create a Talent Map to feed the company's Succession Plan and define actions to maximize the collaborators' contributions according to their skills, accelerating careers for the greatest talents.

The practice was interrupted in 2020 due to the context and resumed in 2021 with a talent identification process (talent being people with potential to face complex challenges and people



TURNOVER RATE (%)

with a high technical capacity), later brought to the management table, where conversations were held about each person in order to come to agreements.

Lastly, at a Talent Review session with the Executive Committee of the company, the talent map and succession scheme for key executive positions were reviewed and adjusted.



5.1.2 COMPENSATION AND BENEFITS

GRI: 102-38, 102-39, 103-1, 103-2, 103-3, 202-1, 401-3

YPF's Compensation and Benefits Program aligns each worker's contribution with our business strategy.

We are focused on guaranteeing external competitiveness and internal equity, which is why we offer competitive remuneration and adhere to a specific internal regulation: for the same position, seniority, experience and performance, employees earn the same wages.

- \rightarrow In 2020 the wage of the initial category in the YPF Group²⁷ was equivalent to 1.8 times the local minimum wage.
- \rightarrow 18 times was the ratio of the total annual compensation of the highest-paid person at YPF S.A. compared to the average of the other employees (vs. 14% in 2020), the company where the chemistry business is managed.
- \rightarrow 1.1% was the ratio²⁸ of the percentage increase in total annual compensation for Grupo YPF (vs. 2.1% in 2020).

The company pays variable compensation depending on how well the business objectives are achieved each year, calculated based on goals and objectives at company level and also by vice presidency. The Long-Term Variable Compensation program is aimed at retaining executives and key personnel through the granting of shares associated with the high potential and a sustained positive performance.

In order to foster the wellbeing of our workers and achieve a balance between career and life, we offer a benefits package with many initiatives, health and wellbeing plan, life insurance, personal loans, a pension plan with company co-participation, transportation for the staff in the operations, payments for childbirth and children of school age, discounts in fuel, and reduced, remote, flexible hours, amongst others. Additionally, we encourage the completion of high school and upper education with support programs that include co-financing.

SHARED PARENTAL RESPONSIBILITY

Parental leaves at YPF for mothers and fathers are longer than the periods mandated by law. Since 2019, female employees may choose to return to the job gradually after their maternity leave.

PARENTAL LEAVE



We strengthen our commitment to foster a shared parental responsibility and shared personal care and domestic work. We understand that this is crucial to be able to amplify both men's and women's work development and performance, equally.

Both the return rate and the retention rate for mothers and fathers who took parental leave were 100%.



5.1.3- DIVERSITY, EQUITY AND INTEGRATION

GRI: 103-1, 103-2, 103-3, 405-1

YPF is a company that 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 equity, diversity and inclusion a vital component of our culture.

In 2018 YPF wrote its manifesto to guide the company in building an environment where diversity is praised, to make innovation possible, to foster a positive work environment and yield better results.

This guide was designed to:

- complementarity.

 \rightarrow Create an environment that acknowledges uniqueness and plurality, treating every person with equity, respect and dignity.

 \rightarrow Promote an integrative environment that values people's unique abilities, strengths and differences, putting faith in

 \rightarrow Value each person's diversity.

 \rightarrow Grow in diversity through the respect, trust and responsibility of each of our workers.

Since 2017, the YPF S.A. Diversity Committee, a multidisciplinary team representing every main corporate and business area of YPF, has the mission of promoting a culture of diversity, equity and integration across the company.

YPFS.A.'s strategy is based on seven conceptual principles guiding us in our plans and yearly initiatives:

- \rightarrow To create a context that will reach the whole company
- \rightarrow To assume the public commitment of moving towards diversity, equity and integration
- \rightarrow To diagnose, so that we are aware of the context and can subsequently define action
- \rightarrow To set goals, to measure the results and to report them
- \rightarrow To remain flexible, so that we can readjust ourhorizon
- \rightarrow To raise awareness, to communicate
- \rightarrow To adjust ourselves to the context

Our manifesto: Respect uniqueness. Create opportunities. Promote inclusion. Value talent. Learn. Get to know each other. Trust. Transform. Act with integrity. Find the plurality. Grow in diversity.







Our action plan is based on three main axes:

Diversity

 \rightarrow To provide equal opportunities at YPF, its value chain and investee companies. To be a benchmark company for the community and our customers.

Equity

 \rightarrow To lift barriers to participation, development, compensation and acknowledgment that are an obstacle to equity and equal opportunities.

Integration

for different areas.

This is important because the reality of a gas station is not the same as that of a well, a refinery or a corporate or commercial area. Each business has its own dynamic, different strategic partners, unions and work modes, and communities that it interacts with.

YPF QUÍMICA is part of YPF's commitment, and we are working on designing our own action plan to be started in 2022.

 \rightarrow To foster commitment, innovation and resilience through a sense of belonging. Our method of defining action plans and focusing on issues of representation is to work with research, comparative analysis and internal diagnoses, and to identify lines of work related to diversity and gender equity, 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. YPF is currently leading this Network, comprising industry representatives.

The Network for Diversity and Inclusion in the Chemical and Petrochemical Industry was created in March 2020 in response to the demands of many companies of the field, given the importance that this issue has acquired for companies to grow, and its positive impact on business outcomes, since it increases the likelihood of innovation and the ability to hire a diverse talent group, 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.

During 2021 a pilot workshop on Diversity and Inclusion was held to provide the initial tools on the topic. Two companies in the field shared their experiences.

At the beginning of 2022, we will issue the first Good Practices against Domestic Violence Newsletter, where four companies from the sector will be sharing with us how they deal internally with this problem and what their action protocols are.

In 2021 and 2020 YPF QUÍMICA surpassed YPF's corporate goal (25% women in leadership positions), with 27% women in executive leadership positions + managers, and 53% women in positions in charge of staff.

During lockdown, gender violence calls in Argentina increased by 18%, 89% of those being about domestic violence. This situation, related to the lockdown, accelerated the development of an idea that first emerged in 2019: to create a domestic violence sub-committee within the Diversity Committee, with a support protocol, in line with ILO Convention 190. We implemented this idea across the company in 2020, with an awareness-raising campaign that will remain during 2021.

SUB-COMMITTEE AND PROTOCOL **AGAINST DOMESTIC VIOLENCE**

GENDER DISTRIBUTION IN LEADERSHIP POSITIONS

(Positions with people in charge) - Total



GENDER DISTRIBUTION IN LEADERSHIP POSITIONS

(Executives + Managers) - Total





5.1.4 STAFF TRAINING

GRI: 103-1, 103-2, 103-3, 404-1, 404-2

During 2020 and 2021 we launched learning initiatives in the context of pandemic-related restrictions. Among those initiatives, we partially and intermittently interrupted all in-person activities due to sanitary risk, and we boosted investments in training, in order to strengthen the company's economic and financial health.

proposition of learning.

ing events.





- Beyond the restrictions, the tough situation provided an opportunity to evolve our value
- Among these achievements we highlight:
- \rightarrow We successfully carried out Virtual Train-
- \rightarrow We started diversely complex Learning
 - CAPABILITIES #YPF CULTURE
 - **#CROSS-CUTTING CAPABILITIES**
 - CAPABILITIES #YPF LEADERSHIP
 - **#TECHNICAL CAPABILITIES**

Projects, including technological and methodological innovation.

- \rightarrow We launched the Training Program for Young Professionals and updated our general and intern onboarding processes.
- \rightarrow We carried on with content integration and launched our first pilot of mass digital access to Cross Skills Learning (LinkedIn Learning).

Common induction and/or company-wide mandatory training Academies to develop key capabilities (soft skills) common to all Businesses

Programs for the development of capabilities linked to the Leader's profile

Programs to develop technical competencies in the different disciplines and Business specialties.

- \rightarrow We decided to choose a platform that would integrate the whole learning and training experience, which is currently underimplementation.
- \rightarrow We carried on with our Languages and External Training proposal.

Average training hours

	20	21	2
	HOURS	AVERAGE	HOURS
Men	970.55	3.41	1994.10
Nomen	409.80	20.49	119.75
Total	1380.35	23.9	2113.85

The company's priority to train employees and enhance their skills is realized through **YPF** Group's skill development ecosystem:

This ecosystem provides diverse learning experiences according to the nature of the skill to be developed. The skills and knowledge related to #CulturaYPF are present in basic training on the company's general policies and regulations (such as the Ethics and Code of Conduct), which are common to all collaborators.











Cross-cutting skills are developed in Academies, each dealing with the main portable skills required to take on the challenges of any organizational position (such as: Agility, Project Management, Digital Skills and Data Management).

Technical skills are developed through the programs structured for such purpose (Expertise, PACTO, FTO), the Technical Communities and their knowledge management activities, the new skill development projects and each Business' technical training.

Technical Development Programs are based on talent, people and business, enhancing our collaborators' technical development throughout their careers in disciplines and fields of key importance to the company.

These programs range from subject-specific technical knowledge ("Expertise YPF") to projects to achieve and maintain technical operational competencies ("PACTO YPF"), all of which help the sustainable development of the company through its technical talent. Specifically in Downstream, the Expertise program covers the fields of Process Engineering, Optimization and Control, Integrity and Maintenance. Senior and Principal professionals earned their first certifications in some of these fields in 2021.





The FTO Program (Operational Technical Training) ensures that operational profiles at the Downstream Operational Complexes have the basic knowledge and skills. This includes the Ensenada (CIE) and Plaza Huincul (CIPH) Industrial Complexes.

During 2021, +150 FTO programs came into being. The project will continue in 2022 until all facilities in the complexes and all associated functions are covered. Among other actions, we would like to highlight the **Employability** Program for Technicians, aimed at developing future operators. In 2021 this program shifted and became a key tool for the business' technical development, with 25 CIE and 6 CIPH employees undertaking it.

Similarly, the Downstream Young Professionals Program was issued again in 2021 and it welcomed 30 new collaborators into different Vice Presidency Businesses.

The Young Professionals programs provide a comprehensive value proposition of learning, to make immersion in the company easier, to speed up the acquisition of basic skills required to perform across several businesses, and create experiences that encourage people to best express their potential and best contribute to the organization.





The internship program is a learning experience that strengthens young people's professional profiles and encourages their personal development, and it is a complement to academic training. The program lasts 12 months and includes a supporting tutor who provides constant feedback and encourages interns to take on new challenges throughout the internship.

The Practice Communities are formal instances of collaboration, with professionals and technicians with a shared technical domain of interest developing joint initiatives to identify, capture, share and develop the critical knowledge required by the business. The Practice Communities make these two key knowledge management goals possible:

- from tacit to explicit.

One significant part of these knowledge management actions is the meetings called **Shar**ing Experiences, which grew significantly in number of participants and became more technically heterogeneous during the reported period. These are periodic online meetings where Businesses present their main experiences of applying critical technical knowledge to projects, with a concrete contribution to the Businesses.



 \rightarrow To migrate critical technical knowledge

 \rightarrow To transform critical technical knowledge from individual to social.

COMMUNITIES OF PRACTICE - 2021









5.2 RELATIONSHIP WITH THE COMMUNITIES

GRI: 103-1, 103-2, 103-3, 413-1

We strive to build relationships based on mutual respect, acknowledgment, trust and the creation of shared value with the communities of the regions where we operate.

Activities for this purpose are in compliance with current legislation in force and YPF's Relationship with the Communities Policy, which seek to establish long-lasting community ties, governed by dialogue, integrity, responsibility, good faith, transparency in information and openness with all inhabitants of the territories.

STRATEGY

We have participation strategies with the communities in our areas of influence, that create and leverage shared value. Hence, how important it is for us to be aware of the communities' needs and socioeconomic situation. We strive to hold a constant conversation with the communities in the areas where we operate.

Our regular channels of communication include a Twitter account, through which we share news and information on drills and operational issues with the community. Some of our followers include the mainstream media journalists of the region.



5.2.1 COMMUNITY PARTICIPATION

TWITTER ACCOUNT: @YPFLAPLATA

YPF La Plata 📀 @YPFLaPlata · 6 nov. 2020 Así se desarrolló el simulacro en Química, Complejo Industrial La Plata CILP, para ejercitar el Plan de Actuación ante Emergencias. Agradecemos a todas las personas que estuvieron involucradas, ayudándonos y poniendo a prueba la seguridad en nuestra área de trabajo.



YPF La Plata 🔮 @YPFLaPlata · 17 ago. 2021 Realizamos un simulacro general en el Complejo Industrial Ensenada (Química YPF) para fortalecer la seguridad en la región. Hubo comunicación en simultáneo con el PREIC y participaron Bomberos Voluntarios de Berisso y Ensenada, y Defensa Civil de Ensenada.



RESPONSE PLAN FOR COMMUNITY-AF-FECTING EMERGENCIES (PREIC)

In 2019, a commitment to formally create a PREIC (Community-Based Emergency Response Plan) 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 S.A. and the Berisso and Ensenada volunteer firefighters.

Because of our proximity to an industrial park we need to be aware of the potential risks. This is considered a material topic by the neighboring community and it is a frequentlyconsulted topic.

The plan 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.





Emergency work requires trained personnel and an informed community, one 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 in the PREIC, 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 the emergency is going to affect the population, plans shall be made 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.

In order to be able to face such risks, it is crucial that the community be aware of the actions to take in each case and that they are prepared on what to do in the event of an emergency.

There are multiple possible emergency scenarios and their prediction is uncertain. Considering this, it is crucial for success that entities prepare themselves beforehand. This is why it is so important that each party commit themselves to the response plan.

Amongst the achievements of the PREIC is the purchase of a community siren. The siren is a big step forward in communication with the community and one of PREIC landmark achievements. Once the siren is working, we will be able to give direct notice to the community. The Ensenada and Berisso municipalities will work hand-in-hand to train the community leaders.



Civil Defense representatives from Ensenada, Berisso and La Plata learning about the PREIC cell phone.







5.2.2 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 for communities, and care and protection for the environment of the areas where we operate.

Our actions are related to our country's social and economic development, particularly in our productive and commercial working regions.

YPF QUÍMICA strives to promote a sustainable development of the communities, regions and countries where we operate, respecting identity, culture and individual interests, and promoting cross-cutting activities to create shared value.

ACTION LINES	
Education, innovation and technology	Supporting children's, adolescents education, with emphasis on raisi
Local development	Promoting initiatives related to so aimed at improving the quality of l working regions.
Strengthening abilities and competencies	Widening opportunities for participer for participer frastructure and employability in c
Care and protection of the environment	Innovation and leadership in susta aimed at leveraging processes for restoration of environmental capit
Diversity and Inclusion	Supporting initiatives in favor of in opportunities.

nts'	and adults	access t	to quality
ising awareness on energy.			

ocial and economic development, life of the inhabitants of our

ipation and empowerment of incommunities.

ainability and energy transition, the prevention, preservation and tal.

nclusion, gender equity and equal

5.2.3 EDUCATION, INNOVATION AND TECHNOLOGY

Espacio de la Energía (Energy Space)

Espacio de la Energía is a space of gathering and communication, for educational institutions, clubs and the members of the community. It started in 2010. Energy topics, particularly those of the petroleum industry, are taught in the interactive rooms of this space, in a didactic manner, with modules and guides for the visitors. At the end of the tour, groups can visit the industrial part of the refinery in authorized vehicles.

In early 2020, because of the COVID-19 pandemic, the Space had to close and we designed a virtual option to keep in touch with our frequent visitors. We developed a game of energy trivia in the app *Kahoot!*, introducing some of the topics that would be subsequently discussed in the conference that we streamed for the institutions.

The same year we took part in the "Museos de mi Ciudad (Museums in My City)" project, organized by the Ensenada Culture Department, hosting a Facebook Live webinar on the importance of hydrocarbon reserves and the presence of YPF in the region.

Over 40 local institutions took part in this virtual event in 2020, and over 35 in 2021. Additionally, in November 2021 we resumed in-person visits with smaller groups, taking in 5 fifteen-person groups from Ensenada local schools.

Espacio de la Energía expansion -**República de los Niños (children's park)**

We are currently working on a project to improve and expand our Energy Space by adding 12 seats to the Cine Vivencial 4D theater to improve capacity, as well as developing our Energy Park, an outdoor space with several entertainment modules to help get our institutional message across. The park has an approximate area of 100 m^2 .

It will include the following entertainment elements:

 \rightarrow Iluminando el día ("light up the **day"):** Scenographic work with mobile translucent panels, dyeing the sky different colors.





 \rightarrow Pedaleando rápido ("let's pedal fast"): There will be four bicycles, the goal is to pedal them creating enough energy to light up a billboard. People may also charge their mobile devices with the energy generated by four bicycles and two handles.

→ Balancéandonos bien alto ("let's swing **high"):** There will be a pergola with 12 circular swings that light up when swung heavily.

5.2.4 LOCAL DEVELOPMENT

Sustainable Ensenada

In late 2019 we organized a hackathon with Fundación YPF, with members of the Ensenada local community presenting several local intervention projects. A jury voted on the most representative project. So we worked hand-in-hand with communities and jointly designed a project of innovative solutions, with special focus on the cities where the energy industry is present.

in Canal Oeste.

The chosen project was one near the YPF Park

We got to work with the Ensenada municipality to come up with a joint project. By mid-2020 we took to the municipality a project to create bike lanes and, by the end of that year, we presented another project to revitalize the Canal Oeste area, with street furniture and lighting fixtures that will make the area more attractive. Since last year we've been working to be a part of the Canal Oeste revitalization project started by the Municipality. With the authorization of the Town Legislature, YPF would join the project by purchasing street furniture for the area. This is expected to be completed in stages during 2022 and 2023.

5.2.5 STRENGTHENING OF **ABILITIES AND COMPETENCIES**

Futuro Ensenadense Cooperative

This Cooperative was founded in 2001 by a group of locals of the Mosconi Neighborhood. One of the many things that they demanded was employment. They decided to come together and create this Cooperative, now a model of work for the city.

The Cooperative works at YPF mowing grass and they have a plant nursery within the complex. The nursery provides YPF with plants to forest many of their occupied areas, and also makes donations as required by other institutions.







5.2.6 CARE AND PROTECTION OF THE ENVIRONMENT

(CILP) La Plata Industrial Complex Nursery

Our goal is to have access to the services of planting, replacement and maintenance of trees and shrubs for scenic beauty and for protection, experimentation and communication, in line with the company's corporate vision on environment and community relations.

The nursery started its functions around 2009 with the Futuro Ensenadense Cooperative, which is formed by people living near the complex, and supervised by specialist technicians from YPF S.A.

The nursery has a strategic value for the complex because not only does it provide environmental benefits, it is also a key component of community integration.

- These are the main activities at the nursery:
- → **Ecological maintenance:** planting native trees in order to preserve natural spaces and their connected fauna.
- → Forestation of new areas: in free green areas, specially the perimeter of the complex, in order to create a green wall that will have a positive visual and auditory impact and will improve air quality for the neighboring communities.
- → **Community exchange:** we provide tree species to municipalities, schools, universities and others.
- → "Nativas Bonaerenses Provincial Plan": According to provisions of Law No. 15,164 and Resolution No. 298/20, in order to foster the ecological restoration of native forests, protected natural areas and shattered environments, as well as revitalizing the natural heritage of the province.

→ Inventory of planted species: with the purpose of keeping detailed track of all shrubs, herbs and trees planted in each sector, so that we can assess the growth progress and make decisions for improvement based on the plants' current status.

Action plan:

- → Training the nursery staff, who are part of the Ensenadense Cooperative, to value and reproduce native species.
- \rightarrow Implementing a plan to reproduce native species from parent plants that are already in the complex.
- \rightarrow Creating a seed bank to reproduce and donate seeds to municipalities.
- \rightarrow Running the nursery in a sustainable way:
- \rightarrow With composting, package recycling, rainwater harvesting for irrigation, and ecological, pesticide-free plague and disease control methods, among others.

- \rightarrow Extending the areas forested with native species and foresting the existing protected areas with such species, since they have links with local fauna and doing so would enrich the ecosystem's biodiversity and capture CO₂ from the air, creating carbon sinks.
- \rightarrow Raising awareness on the importance of keeping the existing green areas as walls to protect the neighborhoods from the impact of local industries.

During 2021 around 200 trees were planted within the complex, which, added to the plantings carried out from 2014 to the present, brings the total to 1,200 trees.








5.2.7 DIVERSITY AND INCLUSION

INGENIAS

The "Ingenias" program comes to light because we acknowledge a gender gap in STEAM disciplines and the need to take concrete action in order to reduce it.

Fundación YPF, partnered with Chicas en Tecnología (Girls in Technology), created this free program for girls in high school between 13 and 18 years old. In the program, girls are encouraged to identify a problem in their communities related to the Sustainable Development Goals (SDG) and they are trained with basic programming tools to develop a mobile app that deals with the problem.

Participants from Ensenada created the following technological solutions:

- → **Music education:** an app to encourage users to learn to play an instrument and make their first steps in music.
- → Eating habits: an app to educate the user on good eating habits.
- → **Sign language:** an app to reduce the existing gap between people with hearing loss and those who do not speak sign language.
 - adolescence.

RESULT IN ENSENADA

- 31 enrolled
- 20 participants
- 20 graduates
- 4 solutions
- 1 reference

\rightarrow Problems in childhood and adolescence:

an app to support the user through some of the tough moments of childhood and

PROGRAMA IGUALDAD (EQUALITY PROGRAM)

Aimed at helping students continue with their classes online. We implemented this program throughout the country, partnered with Fundación YPF.

In Ensenada and Berisso, we gave laptop computers to all students in the fourth year of technical high schools so that they were able to keep up with their online classes and do homework.

Computers given:

- → School No. 1 "Almirante Brown" 88 computers
- → School No. 2 "Santiago de Liniers" 146 computers
- → Technical School "Astillero Río Santiago" 45 computers

Within the Program Vos y la Energía ("You and Energy") with Fundación YPF across the country, during 2021 we provided all necessary books to all sixth graders in 24 schools in Berisso and Ensenada. We donated 2,000 books for students and 47 teacher guides.



5.3 SOCIAL INVESTMENT

5.3.1 CONTRIBUTIONS

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

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

The following information is for Downstream collaborations in general, not limited to YPF QUÍMICA.

_____ Tota _____

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	QUÍMICA		CIE		CIPH	
	2021	2020	2021	2020	2021	2020
Total Voluntary Social Investment	\$14,142,455	\$13,019,815	\$12,240,295	\$12,129,815	\$1,440,580	\$890,000
Total donations	\$13,680,875	\$13,019,815	\$12,240,295	\$12,129,815	\$1,440,580	\$890,000
Surplus	\$4,750,900	\$440,400	\$4,239,900	\$440,400	\$511,000	\$0
With associated budget	\$8,929,975	\$12,579,415	\$8,000,395	\$11,689,415	\$929,580	\$890,000
Total Relationships with the Community	\$461,580	\$0	\$461,580	\$0	\$0	\$0
Relationships with the community (without volunteering hours)						
Relationships with the community (volunteering hours)	\$461,580	\$0	\$461,580	\$0		





5.3.1.1 CONTRIBUTIONS TO THE LA PLATA, BERISSO AND ENSENADA **COMMUNITIES.**

Contributions to educational institutions:

- \rightarrow We donated 43 laptop computers to the Technical School No. 2 Santiago de Liniers, La Inmaculada School and Elementary School No. 13, which they used for online and hybrid classes.
- \rightarrow We provided laptop computers, a printer, television, screen, projector and loudspeakers for Kindergarten No. 908, which had lost all necessary materials.
- \rightarrow We provided 77 pieces of furniture made available by different local areas.
- \rightarrow We donated four unused chromatography machines to two universities: The La Plata Regional Technological University (UTN) and the Arturo Jauretche National University.
- \rightarrow We donated 60 liters of sanitizer to an educational institution as part of our pandemic relief.

health:

- and strengthen our ties.
- \rightarrow El Dique Hospital: we delivered protection and hygiene items for health staff.



Contributions to institutions linked to

We collaborate with an area that has been hit hard these two years during the pandemic. We have responded to the requests that were made to us as quickly as possible and we have managed to come closer to these institutions

 \rightarrow To deal with the emergency arising from the pandemic, in 2020 Ensenada put into operation a new exclusive hospital to be used by patients who required hospitalization for COVID-19. For the implementation, we have donated two washing machines, two dryers and two defibrillator monitors.

 \rightarrow Ministry of Health of the Municipality: we specified the contribution of protection and hygiene items to the different health units, thanks to the coordination by the Ministry.

- \rightarrow Also during 2020 we donated more than 3,300 sanitizers to hospitals and Civil Defense, Ecological Police and Naval Prefecture headquarters in the communities near the Ensenada Industrial Complex (La Plata, Berisso and Ensenada).
- \rightarrow We donated 35 surplus items of furniture and 98 PCs/notebooks to different medical institutions in the region.
- \rightarrow We donated 35 empty surplus plastic drums to use as a waste bin.

Contributions to sports institutions:

- \rightarrow Ball Collaboration Program: This year, through the sponsorship of the National Soccer Team, YPF collaborated with many clubs in the area with balls to practice the sport. The clubs in the area have been greatly affected by the pandemic and they always need items of this type. We delivered more than 260 soccer and futsal balls to 7 clubs and canteens in Ensenada.
- \rightarrow Donations:
- \rightarrow 10 PCs for clubs.

- \rightarrow 90 pallets and 1,520 pipes that are used to make stands and furniture in the institutions and we also donated surplus items of furniture to use in their administrations.
- \rightarrow 20 empty drums used as waste bins

Contributions to community institutions:

- \rightarrow Donation to the Ensenada Volunteer Firefighters of 20 liters of ethanol, 20 liters of distilled water, 12 Tyvek-type garments, and 12 goggles to combat the health emergency.
- \rightarrow 116 drums were donated to be used as waste bins.
- \rightarrow 12 cable reels were donated to be used as tables.







5.3.1.2 PLAZA HUINCUL AND **CUTRAL CO COMMUNITY CONTRIBUTIONS**

Contributions to institutions linked to health:

High Complexity Area Hospital:

- \rightarrow Donation of protection and prevention items for hospital staff (hospital gowns, gloves, alcohol gel, masks).
- \rightarrow Donation of 20 notebooks to be able to advance with the digitization processes of patients' medical information.
- \rightarrow Loan of 2 trailers to address COVID-19 cases.

Contributions to sports institutions:

- \rightarrow Club Barca: Donation of 15 balls and 1 sports kit.
- → Municipality Ministry of Sport: Donation of 60 balls and 3 sports kits for the municipal soccer schools.

Contributions to community institutions:

- house museum.
- 3 surplus notebooks.

- COVID-19.

→ Agrupación 29 de octubre - Exypefianos (YPF veterans): 77 items of furniture and 5 surplus notebooks to inaugurate its

 \rightarrow Investigation Division: Donation of

 \rightarrow Ministry of Social Development of the Nation: Donation of 100 bottles of 10 kg each for vulnerable families in the area.

→ Fundación de Estudios Patagónicos: Patagonia Emprende. Training program for 200 entrepreneurs from four municipalities of Neuquén, including Cutral Co and Plaza Huincul (50 entrepreneurs per locality).

→ Municipality of Plaza Huincul: Provision of electric power through a high-voltage pole owned by YPF to supply power to the vehicle disinfection arc and collaboration with a generator for possible inconveniences, within the framework of preventive actions to stop the advance of





5.4 OUR SUPPLY CHAIN

5.4.1 EFFICIENCY IN LOGISTICS GRI: 102-9

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

Our 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 our customers in the best possible way.

Logistics efficiency and transportation synergies are critical to our supply chain.

Given the distances between our industrial complexes and the plants of our customer portfolio, managing logistics services in the most efficient way possible is essential. We took advantage of ground transportation synergies with other business units, such as methanol and fuel logistics, to ensure comprehensive logistics optimization. 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 began to be incorporated into our 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, our methanol fleet has 21% of scalable units and incentive actions were taken for supplier companies to incorporate this type of truck.

Our plan involves an increase in scalable methanol units reaching 31% by 2023.

METHANOL SYNERGIZED VOLUME	2021	2020		
Synergized volume	44%	97,920.00	37%	100
Volume without synergy	56%	123,610.00	63%	167
Total	100%	221,530.00	100%	268

METHANOL LOGISTICS 2021









5.4.2 SUPPLIER MANAGEMENT

GRI: 103-1, 103-2, 103-3, 204-1

The organization of the supply chain in YPF is led by the Supply Chain Vice Presidency and is performed within the framework of corporate policies of Purchasing, Operational Excellence, and Risk Management. We value our suppliers as strategic partners, and we are as rigorous in their selection as in ensuring that our relationships with them comply with current regulations on applicable technical, fiscal, 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 group²⁹.

Every individual who accesses our plants must be registered as a supplier or subcontractor, as well as their subcontracted personnel, in the Contracted Resources System. This enables us to have control over 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.

INTERNAL SUPPLIERS

- Internal supplie units and comp
- The main interr Management, v virgin naphtha, streams, and p production of p
- Other relevant **Executive Mana** Transportation Presidency, wh services to read and regional ter

YPF QUÍMICA's suppliers are classified as:

5	EXTERNAL SUPPLIERS
er companies refer to other business banies controlled by YPF S.A.	 Our external supplier companies basically consist of storage and supply of production services³⁰, necessary to ensure product availability to our customers.
nal supplier is the Refining Executive which supplies us with raw materials: kerosene, butane and butene ropane-propylene streams for the roducts marketed by YPF QUÍMICA.	 We have product storage in national territory and in Brazil.
	 This increase in storage capacity allowed us 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
internal suppliers are Logistics agement, International Trade and	order to increase the available volume of LAS and thus be able to supply an increasing demand for a product, driven in part by an expansion plan for chemical sales in regional markets (mainly Brazil).
Management and Supply Chain Vice ich provide the necessary logistics	 Through this agreement, YPF supplies raw materials (surplus sulfur and LAB) to this company, which, after a production process, transforms it into
rritory and in the rest of the world.	LAS and sulfuric acid to be dispatched to YPF and its customers.
	• It is worth mentioning that the company Meranol itself also supplies sulfuric acid to the complexes (an essential product for the water demineralization process for use in boilers, among others.)
	• During 2021, the volume of LAS obtained from the supply of production services was 4,400 tons and the volume of sulfuric acid received at the YPF complexes through the same scheme was 2,600 tons





and tons.



Our storage suppliers are considered critical and key to meeting the requirements of our customers. We are working to expand our external capacity by 44.61%.

Reduction of external methanol storage expenses in 2021

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

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

STORAGE CAPACITY

CIE + CIPH (all pro

External (methano and maleic anhyd

Total

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, always having as main values the protection of the integrity of people and care for the environment.

	UNIT OF MEASUREMENT	2021	PROJECTED 2022	VARIATION
oducts)	t	88,666.88	91,419.88	3.10%
ol, LAS, PIB ride)	t	17,222.16	24,905.16	44.61%
	t	105,889.04	116,325.04	9.86%

For more details on the qualification and evaluation of the supplier companies, the Sustainability Report of YPF S.A. can be read more deeply (p. 93).







In 2021, supply chain expense, excluding methanol, totaled almost US\$1.2 million, 27% less than in 2020. As for methanol, expenses were US\$5.8 million, 6% above the expense of 2020, due to additional expenses in the supply chain, to be able to face the scheduled shutdown of the methanol plant.

As in previous years, YPF QUÍMICA's expense in the country far exceeded those made abroad and was reduced proportionally by three points compared to 2020, standing at 83%.

PURCHASES FROM SU

From Argentina

From abroad (Bra

JPPLIERS (USD)	2021		2020	
	83%	US\$585,035.00	86%	US\$6,128,464
azil)	17%	US\$1,177,147.00	14%	US\$1,013,189

CHALLENGES FOR 2022:

 \rightarrow Implementation of a field audit plan for companies that provide external storage to continue improving the quality of our products and services. The audit will include documentary aspects, such as municipal, provincial or national authorizations, insurance, equipment calibration, etc., and aspects related to product quality assurance and management, safety and the environment in operations.

- \rightarrow Based on the results of the calculation of target stocks, incorporate the necessary additional storage capacity by contracting third-party services and adapting the oxo-alcohol tank fleet to methanol at the CIE.
- \rightarrow Increase in scalable methanol units reaching 31% by 2023.

WORK TOGETHER WITH SUPPLIERS IN PANDEMIC

In 2020, the greatest stress test in supplier management took place, due to the almost total restriction of activities and the significant reduction in revenue, which required rapid and effective management of costs and available funds. Cells were deployed for negotiation with suppliers and a drop in unit costs was achieved, which allowed continuing operating in a sustainable manner.





06 GOVERNANCE, ETHICS AND INTEGRITY

SDGs: 16, 17

MATERIAL TOPICS:

- REGULATORY COMPLIANCE
 HUMAN RIGHTS

YPF

RELATIONSHIP WITH INDUSTRY AND STAKEHOLDERS





6.1 GOVERNANCE STRUCTURE OF YPF S.A.

GRI: 102-18, 102-23

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

This management is in charge of Martina Azcurra³¹ and works in the area of the company's Downstream Vice Presidency.

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 it and laying the foundations for its operation. In line with its internal bylaws and applicable laws, its main functions are:

- ment of the company.
- ethics and integrity.
- Management.
- opportunities.

To learn more about the structure and operation of the Board of Directors, refer to: www.ypf.com/ inversoresaccionistas/ GobiernoCorporativo/ Paginas/Codigo-Gobierno-Societario-YPF.aspx

 \rightarrow Ensuring the interest of shareholders, guaranteeing the professional manage-

 \rightarrow Determining and promoting the corporate culture and values, ensuring the observance of the highest standards of

→ Setting YPF's general strategy – inspired by its vision and mission-and approving the strategic plan developed by the Executive

 \rightarrow 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

 \rightarrow Periodically assessing the main issues of the company, its impacts, risks and

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 supervises the implementation of the plan based on financial and non-financial indicators. (Click here to see the Code of Corporate Governance, pp. 3, 4, 6 and 7, clicking here.) 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, and the corresponding Issuance Prospectus and Form 20-F, among other functions.

The highest executive of YPF is the chief executive officer (CEO), who, in compliance with the Bylaws, cannot serve as a Chair of the Board of Directors at the same time. The leaders of the various vice presidencies report to the CEO:

- \rightarrow Vice President of Conventional Upstream
- \rightarrow Vice President of Unconventional Upstream
- \rightarrow Vice President of Downstream
- \rightarrow Vice President of Gas and Energy
- \rightarrow Vice President of Sustainability, Environment, Health and Safety
- \rightarrow Vice President of Strategy and Business Development
- \rightarrow Vice President of People and Culture
- \rightarrow Vice President of Legal Services
- \rightarrow Vice President of Services
- \rightarrow Vice President of Digital Technologies
- \rightarrow Vice President of Institutional Affairs, Communications and Marketing

 \rightarrow Appointing top executives.



6.2 VALUES, ETHICS **AND INTEGRITY**

GRI: 102-11, 102-16

CORPORATE ETHICAL VALUES

- \rightarrow We act with integrity
- \rightarrow We create value
- \rightarrow We give priority to safety
- \rightarrow We are committed to sustainability
- \rightarrow We focus on the client
- \rightarrow We value gender equality and diversity

ETHICS AND COMPLIANCE

The Code of Ethics and Conduct³² and the policies and standards related to the integrity of the company apply to all of its collaborators, members of the Board of Directors, affiliates, parent companies, contracted personnel, subcontracted personnel, suppliers, consultants, and the rest of the business partners that work with YPF either directly or on its behalf and account or in its interest (this part is not clear).

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 accounts for 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 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 others³³.

To learn more about Ethics and Compliance refer to: 2020 Sustainability report page 106







6.3 AFFILIATION TO ASSOCIATIONS AND EXTERNAL INITIATIVES

GRI: 102-12, 102-13

YPFS.A. is affiliated with the following organizations, among others, through which it is involved and works for the sustainable development of the industry:

- → APLA Latin American Petrochemical Association, Member of the Board of Directors and the Logistics Commission
- → CAI Argentine Center of Engineers
- → CEADS Argentine Business Council for Sustainable Development
- → CIPPEC Center for the Implementation of Public Policies
- \rightarrow CIQyP Argentine Chamber of the Chemical and Petrochemical Industry
- \rightarrow IPA Argentine Petrochemical Institute
- → IDEA Institute for Business Development of Argentina
- → AmCham American Chamber of Commerce in Argentina
- \rightarrow Argentine Network for the United Nations Global Compact

Also, different representatives of YPF QUÍMICA participate in the following commissions, committees and consortia of the Petrochemical Institute (IPA) and the Chamber of the Chemical and Petrochemical Industry (CIQyP):

IPA

- → Net Zero Commission

CIQYP

- Commission
- Care (PCRMA)



 \rightarrow Board of Directors. Second Vice Presidency in charge of the Executive Manager of YPF QUÍMICA

→ NETWORK of Diversity and Inclusion of the Chemical and Petrochemical Industry

→ Sectoral Studies Commission

→ Plastics Chemical Recycling Consortium

 \rightarrow Executive Committee. Secretariat in charge of the Executive Manager of YPF QUÍMICA

→ CIQyP Marketing and Logistics

 \rightarrow Committee and industry meetings of the Program for Responsible Environmental





DISCLAIMER

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

Forward-looking statements

Certain matters discussed in this report include forward-looking statements subject to risks and uncertainties. Readers are cautioned that our forward-looking statements are not guarantees of our future actions or developments, which may differ materially from those described or implied. We disclaim a duty to provide updates to these forward-looking statements after the date of this report, to reflect events or changes in circumstances or changes in expectations, or the occurrence of anticipated events. Links to any websites that appear in this report are for informational purposes only.





ABOUT THIS REPORT

GRI: 102-1, 102-3, 102-45, 102-50, 102-51, 102-52, 102-53, 102-54

This Sustainability Report corresponds to:

YPF QUÍMICA. YPF S.A. business unit

CUIT of YPF S.A.: 30-54668997-9

Headquarters: Macacha Güemes 515, Autonomous City of Buenos Aires, Argentine Republic.

Contact for questions about this Report and Website: www.ypf.com/productosyservicios/ quimica/Paginas/index.html

We have submitted the 1st Sustainability Report of YPF QUÍMICA, a business unit belonging to YPF S.A., which details the performance in the economic, social and environmental fields during the period from January 1, 2020, to December 31, 2021. Our reporting cycle is biennial, so the second sustainability report will be prepared for the 2022-2023 period.

This report was prepared in accordance with the Global Reporting Initiative Standards (GRI 2016), essential option. Specific indicators for the "Chemical Substances" industry of the Sustainability Accounting Standard Board (SASB) organization were also used.

The corporate policies and the main strategic guidelines of YPF QUÍMICA are defined by YPF S.A. 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 S.A., we suggest referring to the following information:

- YPF S.A. Sustainability Strategy: https:// sustentabilidad.ypf.com/

- YPF S.A. Sustainability Report: https://sustentabilidad.ypf.com/#reportes

aspx



- Corporate information of YPF S.A. and YPF Group: https://www.ypf.com/Paginas/home.



APPENDICES

CHAPTER 2: YPF QUÍMICA

Sales in to	ns
Internal sa	les
Domestic	market
Foreign m	arket
% Domest	ic market sales/Total sales to third parties
% of Foreig	gn Market Sales/Total Sales to Third Parties
Clients	
Number o	clients
Annual ave	erage of days of response to our clients
T of produ	ct claimed/T of product sold
Number o	orders claimed/Number of orders issued
Productio	าร
LAB/LAS,	PIB, MAN
Methanol	

Benzene, Toluene, Xylene Mixture, Orthoxylene, Heavy Aromatic, Octane Base, Cyclohexane, Solvents, Turpentine, Isoparaffinic Cutting)



	QUÍMICA		
UNIT	2021	2020	EXTERNAL VERIFICATION
kt	1,210	1,100	
kt	508	517	
kt	489	390	
kt	213	193	
%	70%	67%	
%	30%	33%	
quantity	186		
	20 days	24 days	
%	0.08%	0.28%	
%	0.13%	0.33%	
t	79,719	69,473	
t	324,580	167,809	
t	487,120	505,510	



CHAPTER 3: CLIMATE ACTION AND SUSTAINABLE PRODUCTION

PRODUCTION

302-1 (2016) GRI Energy consumption within the organization

Non-renewable source fuel consumption

Renewable source electricity consumption

Non-renewable source electricity consumption

Steam consumption

302-3 (2016) GRI Energy intensity

% REP consumption/Total EE consumption

% consumption of renewable energy

305-1 (2016) GRI 305-1 GHG direct emissions (scope 1)

Fossil combustion

Fugitive CH₄

 N_{2}^{0}

305-2 (2016) GRI Indirect GHG emissions when generating energy (scop

Purchased electricity

Purchased steam

In cases where the sum of breakdowns does not correspond to the total, the difference is due to the rounding of values.

		QUÍMICA		CIE		СІРН		
		2021	2020	2021	2020	2021	2020	EXT VER
	kt	1,278	1,108	954	939	325	168	
	GJ	17,206,145	13,233,205	12,160,059	10,289,994	5,046,086	2,943,211	
	GJ	15,586,391	12,039,470	10,839,993	9,277,900	4,746,398	2,761,571	
	GJ	234,032	155,462	234,032	155,462	0	0	
	GJ	638,243	546,529	338,555	364,889	299,688	181,640	
	GJ	747,479	491,743	747,479	491,743	0	0	
	GJ/t	13.5	11.9	12.7	11.0	15.5	17.5	
	%	26.8%	22.1%	40.9%	29.9%	0.0%	0.0%	
	%	1.4%	1.2%	1.9%	1.5%	0.0%	0.0%	
	tCO ₂	570,198	529,395	450,739	428,086	119,459	101,310	
	tCO ₂	565,601	524,256	446,328	424,302	119,273	99,954	
	tCO ₂	548	734	520	661	29	74	
	tCO ₂	4,049	4,405	3,892	3,123	157	1,282	
pe 2)	tCO ₂	171,124	123,130	158,385	115,558	12,740	7,573	
	MWh	188,803	148,253	159,051	130,568	29,752	17,685	
	GJ	744,262	491,743	744,262	491,743	0	0	







305-3 Other indirect GHG emissions (scope 3)	
305-4 Intensity of GHG emissions	

Intensity of total emissions (GHG 1+GHG 2)

Intensity of GHG emissions Scope 1

Intensity of GHG emissions Scope 2

Intensity of GHG emissions Scope 3

305-7 (2016) GRI Atmospheric emissions

NOx

SOx

Volatile organic compounds (NMVOC)

Particles (PM)

СО

303-3 (2018) GRI Water collected by source

Water of surface resources

Water collected from the public water supply

% of larger collection facilities with efficient water use

In cases where the sum of breakdowns does not correspond to the total, the difference is due to the rounding of values.

	QUÍMICA		CIE		CIPH		
	2021	2020	2021	2020	2021	2020	EXT VER
tCO ₂	NA	NA	NA	NA	NA	NA	
tCO ₂ eq/ unit prod	0.58	0.59	0.64	0.58	0.41	0.65	
tCO ₂ eq/ unit prod	0.45	0.48	0.47	0.46	0.37	0.60	
tCO₂eq/ unit prod	0.13	0.11	0.17	0.12	0.04	0.04	
tCO₂eq/ unit prod	ΝΑ	ΝΑ	NA	ΝΑ	ΝΑ	NA	
t	1,506	1,067	1,199	904	308	163	
t	118	129	118	129	0	0	
t	323	288	162	203	161	86	
t	32	30	30	27	2	3	
t	1,856	2,275	1,823	2,266	33	9	
kt	4,240	4,264	3,430	3,579	810	685	
kt	3,305	3,473	3,305	3,473	0	0	
kt	935	792	125	107	810	685	
 %							







303-4 (2018) GRI Water discharge by destination

Surface body

Underground body

Soil

Reused for irrigation

303-5 (2018) GRI Water Consumption

Consumption in an area with water stress

Consumption in other areas

Intensity of water collection

Intensity of water consumption

306-2 (2016) GRI WASTE GENERATED

Hazardous

Catalyst

Caustic soda

Mud from effluent pools

Miscellaneous contaminated

Water with HC

Others

In cases where the sum of breakdowns does not correspond to the total, the difference is due to the rounding of values.

	QUÍMICA		CIE		СІРН		
	2021	2020	2021	2020	2021	2020	EXT VEF
kt	1,947	2,374	1,635	2,060	311	315	
kt	1,927	2,315	1,635	2,060	291	256	
kt	0	0	0	0	0	0	
kt	0	0	0	0	0	0	
kt	20	59	0	50	20	9	
kt	2,293	1,890	1,795	1,520	498	370	
kt	0	0	0	0	0	0	
kt	2,293	1,890	1,795	1,520	498	370	
kt/kt produced	3.32	3.85	3.60	3.81	2.49	4.06	
kt/kt produced	1.79	1.71	1.88	1.62	1.54	2.20	
t	2,711	2,128	2,570	1,940	141	193	
 t	2,230	1,690	2,169	1,563	61	127	
t	68	367	68	367			
t	635	48	635	48			
t	1,120	904	1,120	904			
t	265	265	251	207	15	58	
t	40	69			40	69	
t	101	37	95	37	6	0	





		QUÍMICA		CIE		CIPH		
		2021	2020	2021	2020	2021	2020	EXT VER
Non-hazardous	t	481	438	400	377	81	66	
Domiciliary	t	113	85	105	78	8	7	
Scrap	t	288	253	233	211	55	42	
Others	t	80	105	62	88	18	17	
306-4 (2020), 306-5 (2020) GRI HAZARDOUS WASTE destined for disposal	t	2,230	1,690	2,169	1,563	61	127	
Incineration (without energy recovery)	t	976	575	957	975	19	0	
Final disposal in landfill	t	1,157	943	1,157	943	0	58	
Other disposal operations:	t	97	113	55	45	42	69	
306-4 (2020), 306-5 (2020) GRI NON-HAZARDOUS WASTE	t	481	438	400	377	81	66	
Reused	t	6	4	0	0	6	4	
Recycled	t	341	309	286	267	55	47	
Disposed of	t	134	124	115	110	20	14	
% Reused+Recycled/Total non-hazardous	%	72%	72%	71%	71%	76%	71%	
Certifications								
ISO 9001		yes			yes	yes		
ISO 14000					yes	yes		
ISO 14064					yes	yes		
ISO 50001					yes			
PCRMA		yes						

In cases where the sum of breakdowns does not correspond to the total, the difference is due to the rounding of values.







306-3 (2016) GRI SPILLS

Number of HC spills 0-1 bbl w/ affectation to the MA, #

Vol of HC affecting ground 0-1 bbl, t

Tanks

Priority risk tanks

	QUÍMICA		CIE		CIPH		
	2021	2020	2021	2020	2021	2020	EXT VER
quantity	4	0	3	0	1	0	
t	0.16	0.00	0.16	0.00	0.00	0.00	
quantity	117	0	112	0	5	0	
quantity	9	0	9	0	0	0	







CHAPTER 5: PEOPLE AND SHARED SOCIAL VALUE

INDICATOR	UNIT
102-8 GRI Employees/ Other workers Total staff	quan
Women	quant
Men	quant
Own personnel (PP)	quan
Women	quan
Men	quan
Contracted Personnel (CP)	quan
Women	quant
Men	quan
102-8 GRI Employees/ Other workers Gender Distribution	PP
Women	%
Men	%
102-8 GRI Employees/ Other workers Distribution of employment by geographical area - % Stores	
Stores (La Plata/Plaza Huincul)	quant
Rest of the country (City of Buenos Aires)	quan
Other Countries (Brazil)	quan
102-8 GRI Employees/ Other workers Distribution by type o	f contract
Permanent contract PP	quan
Temporary contract PP	quan

	YPF QUÍMICA		CIE		CIPH		HEADQUARTERS	NÌUQ
NIT	2021	2020	2021	2020	2021	2020	2021	202
uantity	401	411	326	337	35	44	40	30
uantity	22	24	9	10	2	4	11	11
uantity	379	387	317	327	33	40	29	19
Jantity	305	299	240	236	34	33	31	30
uantity	20	19	7	7	2	2	11	11
uantity	285	280	233	229	32	31	20	19
uantity	96	112	86	101	1	11	9	
Jantity	2	5	2	3		2		
uantity	94	107	84	98	1	9	9	
	6.6%	6.4%	2.9%	3.0%	5.9%	6.1%	35.5%	36.
	93.4%	93.6%	97.1%	97.0%	94.1%	93.9%	64.5%	63.
	94.8%	95.3%	73.7%	70.0%	97.1%	75.0%	37.5%	36.
Jantity	289	285	240	236	34	33	15	11
uantity	13	11					13	16
uantity	3	3					3	3
uantity	305	299	240	236	34	33	31	30
uantity	0	0	0	0	0	0	0	0



A		
0/		
70		
%		
%		



INDICATOR	UNIT
GRI 405-1 Diversity in government agencies and employees	qua
Total own personnel	qua
Executive category	qua
Manager category	qua
Manager and coordinator category	quai
Analyst category	qua
Under agreement	qua
GRI 401-1 New hires of employees and own personnel turnover	
Total registrations	qua
Women	qua
Men	qua
Total terminations	qua
Women	qua
Men	qua
Total PP turnover rate	%
Women PP turnover rate	%
Men PP Turnover rate	%
Percentage of vacant positions filled by in-house candidates	%

	YPF QUÍMICA		CIE		CIPH		HEADQUARTERS	QUÍMI
ΝΤ	2021	2020	2021	2020	2021	2020	2021	2020
Jantity								
Jantity	401	411	240	236	34	33	31	30
Jantity	1	1					1	1
Jantity	10	9	1				9	8
lantity	6	8	4	4	1	1	17	3
Jantity	34	30	16	11	1	1	3	18
Jantity	350	363	219	221	32	31	1	0
Jantity	20	4	17	4	1	0	2	0
Jantity	1	1	1	1			1	
Jantity	16	3	16	3	1		1	
Jantity	14	18	13	15	0	0	1	3
Jantity		1						1
Jantity	14	17	13	15			1	2
	5%	6%	5%	6%	0%	0%	3%	10%
	0%	5%	0%	0%	0%	0%	0%	9%
	5%	6%	6%	7%	0%	0%	5%	119
	42%	63%	44%	50%	0%	0%	38%	75 %



A	
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INDICATOR	UN
102-41 GRI Collective Bargaining Agreements	%
TOTAL OWN PERSONNEL	
Own personnel under agreement	qu
Non-pay scale own personnel	qu
TOTAL CONTRACTED PERSONNEL	
Contracted personnel under agreement	qu
Non-pay scale contracted personnel	qu
Gender distribution in leadership positions (executives + managers) - Total	qu
Women	qu
Men	qu
% Women	%
% Men	%
Gender distribution in leadership positions (staff in charge of 16 to 21 people) - Total	qu
Women	qu
Men	qu
% Women	%
% Men	%

	YPF QUÍMICA		CIE		CIPH		HEADQUARTERS	QUÍMI
г	2021	2020	2021	2020	2021	2020	2021	2020
Inder agreement								
	401	411	326	337	35	44	40	30
intity	350	363	219	221	32	31	1	0
intity	51	48	107	116	3	13	39	30
antity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
antity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
antity	11	10	1	1			10	9
antity	3	3					3	3
antity	8	7	1	1			7	6
	27%	30%	0%	0%	0%	0%	30%	33%
	73%	70%	100%	100%	0%	0%	70%	67 %
antity	15	14						
antity	8	8						
antity	7	6						
	53%	57%	0%	0%	0%	0%	0%	0%
	47%	43%	0%	0%	0%	0%	0%	0%



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)	
)	



INDICATOR	UN
GRI 401-3 Parental leave	
Employees who took parental leave	qu
Reinstatements	qu
Return-to-work rate	%
Active female employees a year after their return	qu
Retention rate	%
Employees entitled to parental leave (pregnancies)	qu
Employees who took parental leave	qu
Reinstatements	qu
Return-to-work rate	%
Employees active on their return year	qu
Retention rate	%



	YPF QUÍMICA		CIE		CIPH		HEADQUARTERS	QUÍMIO
Т	2021	2020	2021	2020	2021	2020	2021	2020
antity	4	1	1		1		2	1
antity	4	1	1		1		2	1
			100%		100%		100%	100
antity							1	
							100%	
antity								
antity			7	11				
antity			7	11				
			100%	100%				
antity			11					
			100%					



A			
%			

INDICATOR	UNI
GRI 404-1 Average hours of training a year by own personnel	
Total	hou
Women	hou
Men	hou
Average training	H/I
Average women	H/I
Average men	H/I
Own personnel	hou
Contracted personnel	hou
Average training expenses	US
404-3 GRI Types of individual performance evaluations	
Employees who received performance evaluation	%
Women	%
Men	%

	YPF QUÍMICA		CIE		CIPH	СІРН		HEADQUARTERS QUÍMICA	
г	2021	2020	2021	2020	2021	2020	2021	2020	
irs	1,380	2,114	802	1,722	252	247	327	145	
Irs	410	120	241	57	22	11	147	52	
Irs	971	1,994	561	1,665	230	236	180	93	
ndividual	4.5	7.1	3.3	7.3	7.4	7.5	10.5	4.8	
ndividual	20.5	6.3	34.4	8.1	11.0	5.5	13.4	4.7	
ndividual	3.4	7.1	2.4	7.3	7.2	7.6	9.0	4.9	
Irs	1,380	2,114	802	1,722	252	247	327	145	
Irs									
\$/hour	US\$51.39	US\$13.00	US\$88.45	US\$15.96	US\$281.49	US\$111.26	US\$216.93	US\$189.52	
	100%	99%							
	100%	90%							
	100%	100%							





INDICATOR	UN
GRI 403-9 Injuries due to work-related accidents	
Accident Frequency Rate (AFR) - total (LTIFR)	N 0 aco 1,0
Own personnel	N c acc 1,0
Contracted personnel	N (ac(1,0
Accidents with loss of workdays (Computable) - total	qu
Accidents with loss of workdays (Computable) - Own personnel	qu
Accidents with loss of workdays (Computable) - Contractor staff	qu
Hours worked (millions) - Total	Mi
Hs. Own personnel	Mi
Hs. Contracted personnel	Mi
Fatalities	qu
Own personnel	qu
Contracted personnel	qu
3.7.6 Process Safety Events	qu
Number of level 1 process safety events	qu
Number of level 2 process safety events	qu



	YPF QUÍMICA		CIE		CIPH		HEADQUARTERS (QUÍMICA
Т	2021	2020	2021	2020	2021	2020	2021	2020
omputable idents per 00,000 hrs worked	0.28	0.62						
omputable idents per 00,000 hrs worked	0.00	0.90						
omputable idents per 00,000 hrs worked	0.41	0.47						
antity	1.00	2.00						
antity	0	1						
antity	1	1						
lions Hs.	3.51	3.24						
lions Hs.	1.10	1.11						
lions Hs.	2.41	2.14						
antity	0	0						
antity	0	0						
antity	0	0						
antity	4	6						
antity	2	3						
antity	2	3						



A		



INDICATOR	UNIT
GRI 403-10 Work-related illnesses and diseases	
The number of deaths resulting from an occupational disease or illness	qua
Own personnel	qua
Contracted personnel	qua
The number of occupational diseases or illnesses	qua
Own personnel	qua
Contracted personnel	qua
Total Voluntary Social Investment	\$
Total Donations	\$
Surplus	\$
With associated budget	\$
Total Relationships with the Community	\$
Community relationships (No volunteering Hrs)	\$
Community relationships (volunteering Hrs)	\$
GRI 204-1 Expense ratio for local suppliers	%
Total Purchases	\$
National purchases	\$
Foreign purchases	\$

	YPFQUÍMICA		CIE		CIPH		HEADQUARTERS (QUÍMICA
NIT	2021	2020	2021	2020	2021	2020	2021	2020
uantity	0	0						
uantity	0	0						
uantity	0	0						
uantity	41	19						
uantity	0	0						
uantity	0	0						
	\$14,142,455	\$13,019,815	\$12,701,875	\$12,129,815	\$1,440,580	\$890,000		
	\$13,680,875	\$13,019,815	\$12,240,295	\$12,129,815	\$1,440,580	\$890,000		
	\$4,750,900	\$440,400	\$4,239,900	\$440,400	\$511,000	\$0		
	\$8,929,975	\$12,579,415	\$8,000,395	\$11,689,415	\$929,580	\$890,000		
	\$461,580	\$0	\$461,580	\$0	\$0	\$0		
	\$461,580	\$0	\$461,580	\$0				
, D	83.2%	85.8%						
	\$7,027,497	\$7,141,653						
	\$5,850,350	US\$6,128,464						
	\$1,177,147	US\$1,013,189						





EXTERNAL VERIFICATION REPORT

Deloitte

Deloitte & Co. S.A. Florida 234, 5° piso C1005AAF Ciudad Autónoma de Buenos Aires Argentina

www.deloitte.com/ar

Independent Public Accountant Limited Assurance Report (on Sustainability Report)

То

YPF S.A. Macacha Güemes 515 Ciudad Autónoma de Buenos Aires CUIT: 30-54668997-9

1. Scope of work

We have been engaged by YPF S.A. to issue a limited assurance report on certain information contained in the 2021 Sustainability Report 2021 ("SR") for YPF Química, for the period January 1st to December 31st, 2021. This assurance engagement was carried out by a multidisciplinary team that includes assurance professionals and sustainability specialists.

2. Responsibility of YPF S.A.

The Board of Directors of YPF S.A. is responsible for:

• The content of the SR, which implies determining which is the coverage and performance indicators to be included, and of relevance to the stakeholders to which it is directed;

• The definition of the criteria applicable in the elaboration of the SR, being the criteria adopted by the Entity those defined in the GRI Standards (Global Reporting Initiative);

• Proper records and book-keeping to support the information management process relevant to the purposes stated herein and the execution of the performance measurement based on the established criteria;

• The design, implementation and execution of adequate internal controls for the preparation of the information under analysis;

• The preparation and presentation of the SR.

This responsibility also includes the design, implementation and maintenance of internal control relevant to the preparation of the 2021 Sustainability Report of YPF Química that is free from material misstatements, whether due to fraud or error.

Non-financial information is subject to its own limitations, given its nature and the methods used to calculate, sample or estimate values, which are subject to individual assumptions and criteria. We have not performed any work outside the agreed scope and therefore our conclusion is limited only to the identified sustainability information.

3. Independence and Quality Control

We have complied with the standards of independence and other ethical requirements included in the Code of Ethics for Professional Accountants issued by IESBA ("International Ethics Standards Board for Accountants") which is based on the fundamental principles of integrity, objectivity, professional competence, due care, confidentiality and professional conduct.

Our firm applies the International Standards on Quality Control (ISQC 1) and, consequently, we have a quality control system, including policies and processes to ensure compliance with ethical

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standards, professional standards and regulatory and legal requirements.

4. Responsibilities of the public accountant

Our responsibility was to issue a limited assurance report, in accordance with the rules established in section V.A of Technical Resolution No. 37 of the Argentine Federation of Professional Councils of Economic Sciences, which addresses the International Standard on Assurance Engagements (ISAE) 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" issued by the International Auditing and Assurance Standards Board (IAASB). These standards require that we comply with the ethic requirements, as well as that we plan and perform our work in order to issue a limited assurance report with the scope detailed in this report.

A limited assurance engagement includes examining, on a test basis, evidence supporting the selected sustainability information in-scope for our report. It also includes an assessment of the estimates, and inquiries to the individuals responsible for the preparation of the information submitted, and other similar procedures, which are less in extent compared to a reasonable assurance engagement and therefore do not provide assurance that we have become aware of all the significant issues that could be identified in a reasonable assurance engagement.

To obtain limited assurance on the information identified in Annex I to this Report, our work consisted of:

• interview the management and staff of the entity responsible for the collection of information and the development of selected performance indicators in order to obtain an understanding of the Entity's sustainability policies, the activities implemented and the information collection systems used and to evaluate the application of of GRI Standards and SASB Disclosures;

• perform tests, on a selective basis, to verify the accuracy of the information submitted for the selected indicators:

• analyze, where appropriate, the information systems and methodology used for the compilation of quantitative data corresponding to the entity's performance indicators;

• inspect, on a selective basis, the existing documentation to corroborate the Management statements' in our interviews.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion below.

5. Conclusion

Based on the limited assurance procedures we have performed, nothing has come to our attention that causes us to believe that the selected subject matter identified in chapter 4 of this report has not been prepared, in all its significant aspects, in accordance with the GRI Standards (2016, 2018 and 2020).

Ciudad Autónoma de Buenos Aires, October 4th, 2022.

DELOITTE & Co. S.A. (Registro de Sociedades Comerciales C.P.C.E.C.A.B.A. – T° 1 - F° 3)

Esteban Enderle Public Accountant (U.B.A) C.P.C.E.C.A.B.A. - T°364 - F°233

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ANNEX I

Indicator	Description
302-1 (2016) GRI	Energy consumption within the organization
302-3 (2016) GRI	Energy intensity
303-3 (2018) GRI	Water withdrawal
303-4 (2018) GRI	Water discharge
303-5 (2018) GRI	Water consumption
305-1 (2016) GRI	Direct (Scope 1) GHG emissions
305-2 (2016) GRI	Energy indirect (Scope 2) GHG emissions
305-7 (2016) GRI	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions
306-2 (2016) GRI	Waste by type and disposal method
306-4 (2020) GRI	Waste diverted from disposal
306-5 (2020) GRI	Waste directed to disposal
306-3 (2016) GRI	Significant spills

This Annex is an integral part of our report dated October 4th, 2022.

DELOITTE & Co. S.A.

(Registro de Sociedades Comerciales C.P.C.E.C.A.B.A. – T° 1 - F° 3)

Esteban Enderle Public Accountant (U.B.A) C.P.C.E.C.A.B.A. - T°364 - F°233

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GRIINDEX

GRI: 102-55

GRI	DESCRIPTION	PAGE OR REFERENCE	EXTERNAL VERIFICATION
GRI 102 GENERAL CONTENTS	5 (2016)		
Company Profile			
102-1	Name of the organization	85	
102-2	Activities, brands, products and services	21	
102-3	Headquarters	85	
102-4	Operations	19	
102-5	Property and legal status	5	
102-6	Markets served	21	
102-7	Company size	14.17, 58, 86	
102-8	Information on employees and other workers	58, 91	
102-9	Supply chain	77	
102-10	Significant changes in the organization and its supply chain	It is the first report of the business unit	
102-11	Precautionary principle or approach	31, 35, 83	
102-12	External initiatives	84	
102-13	Membership in associations	84	
Strategy			
102-14	Statements from top executives responsible for decision-making	3	
102-15	Main impacts, risks and opportunities	11	
Ethics and Integrity			
102-16	Values, principles, standards and rules of conduct	83	
Governance			
102-18	Governance structure	11, 82	
102-21	Queries to stakeholders on economic, environmental and social topics	8	
102-23	Chairman of the highest governing body	82	







GRI	DESCRIPTION	PAGE OR REFERENCE	EXTERNAL VERIFICATION
102-29	Identification and management of economic, environmental and social impacts	8	
102-30	Effectiveness of risk management processes	53	
102-38	Ratio of total annual compensation	61	
102-39	Ratio of percentage increase in total annual compensation	61	
Stakeholders' Participation			
102-40	List of stakeholders	8	
102-41	Collective bargaining agreements	57, 93	
102-42	Stakeholders' identification and selection	8	
102-43	Approach to stakeholders' participation	8	
102-44	Key topics and issues mentioned	8	
Practices in Preparing Reports			
102-45	Entities included in the consolidated balance sheets	85	
102-46	Definition of the report contents and topics coverage	8	
102-47	List of material topics	8, 10	
102-48	Restating information	It is the first report of the business unit	
102-49	Changes in preparing reports	It is the first report of the business unit	
102-50	Period of the Report	85	
102-51	Date of the last report	85	
102-52	Preparation cycle of reports	85	
102-53	Contact point for questions on report	85	
102-54	Preparation statement on the report in compliance with GRI standards	85	
102-55	GRI table of contents	97	
102-56	External verification	The report has not been verified externally	
103-1	Explanation of the material topic and coverage	14	







GRI	DESCRIPTION	PAGE OR REFERENCE	EXTERNALVERIF
103-2	Management approach and its components	14	
103-3	Evaluation of management approach	14	
201-1	Direct economic value, generated and distributed	14	
Material Topics - GRI 20	00 - Economic Standards		
GRI 204 - Acquisition Pr	ractices (2016)		
103-1	Explanation of the material topic and coverage	78	
103-2	Management approach and its components	78	
103-3	Evaluation of management approach	78	
204-1	Expenses ratio for local suppliers	78, 96	
Material Topics - GRI 30	00 - Environmental Standards		
GRI 302 - Energy (2016)			
103-1	Explanation of the material topic and coverage	33	
103-2	Management approach and its components	33	
103-3	Evaluation of management approach	33	
302-1	Energy consumption within the organization	33, 87	•
302-3	Energy intensity	33, 87	•
GRI 303 - Water and Eff	luents (2018)		
103-1	Explanation of the material topic and coverage	36	
103-2	Management approach and its components	36	
103-3	Evaluation of management approach	36	
303-1	Interaction with water as a shared resource	36	
303-2	Management of impacts related to water discharges	36	
303-3	Water extraction	36, 88	•
303-4	Water discharge	36, 88	٠
303-5	Water consumption	36, 89	•





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GRI	DESCRIPTION	PAGEORREFERENCE	EXTERNAL VERIFICATION
GRI 305 - Emissions (2016)			
	Evaluation of the metanial tania and sevenage	21.25	
103-1	Explanation of the material topic and coverage	31, 30	
103-2	Management approach and its components	31, 35	
103-3	Evaluation of management approach	31, 35	
305-1	Direct (Scope 1) GHG emissions	31, 87	•
305-2	Indirect GHG emissions when generating energy (Scope 2)	31,87	•
305-4	Intensity of GHG emissions	31, 88	
305-5	GHG emissions reduction	31	
305-6	Emissions of substances that affect the ozone layer	31	
305-7	Nitrous oxides (NOX), sulfur oxides (SOX) and other significant air emissions	35, 88	•
GRI 306 - Waste (2020)			
103-1	Explanation of the material topic and coverage	39	
103-2	Management approach and its components	39	
103-3	Evaluation of management approach	39	
306-1	Waste generation and significant impacts related to waste	39	
306-2	Management of significant impacts related to waste	39	
306-3	Waste generated	89	
306-4	Waste not intended for disposal	89	•
306-5	Waste intended for disposal	89	•
GRI 306 - Effluents and Waste (2016)		
306-2	Waste by type and method of disposal	39, 89	•
306-3	Significant spills	90	•
Material Topics - GRI 400 - Social St	andards		







GRI	DESCRIPTION	PAGE OR REFERENCE	EXTERNAL VERIFICATION
GRI 401 - Employment (2016)			
103-1	Explanation of the material topic and coverage	58, 61	
103-2	Management approach and its components	58, 61	
103-3	Evaluation of management approach	58, 61	
401-1	New hiring of employees and staff turnover	58, 92	
401-3	Parental leave	61, 93	
GRI 403 - Occupational Health and S	Safety (2018)		
103-1	Explanation of the material topic and coverage	44	
103-2	Management approach and its components	44	
103-3	Evaluation of management approach	44	
403-1	Occupational health and safety management system	44	
403-2	Hazard identification, risk assessment and incident investigation	44	
403-3	Health services in the workplace	44	
403-4	Worker involvement, consultation and communication on occupational health and safety	44	
403-5	Training of workers on occupational health and safety	44	
403-6	Promotion of workers' health	44	
403-7	Prevention and mitigation of impacts on the health and safety of workers directly linked to business relationships	44	
403-8	Coverage of the occupational health and safety management system	44	
403-9	Injuries due to work-related accidents	44,95	
403-10	Work-related ailments and illnesses	44, 96	





GRI	DESCRIPTION	PAGEORREFERENCE	EXTERNAL VERIFICATION
GRI 404 - Training and tea	aching (2016)		
103-1	Explanation of the material topic and coverage	58, 65	
103-2	Management approach and its components	58, 65	
103-3	Evaluation of management approach	58,65	
404-1	Average training hours per year by employee	65,94	
404-2	Programs to improve employee skills and transition assistance programs	58	
404-3	Percentage of employees receiving regular performance and professional development evaluations	58,94	
GRI 405 - Diversity and eq	qual opportunities (2016)		
103-1	Explanation of the material topic and coverage	58	
103-2	Management approach and its components	58	
103-3	Evaluation of management approach	58	
405-1	Diversity in government agencies and employees	58, 92	
GRI 413 - Local Communi	ties (2016)		
103-1	Explanation of the material topic and coverage	68	
103-2	Management approach and its components	68	
103-3	Evaluation of management approach	68	
413-1	Operations with local community participation, impact assessments and development programs	68	
GRI 416 - Customer Healt	h and Safety (2016)		
103-1	Explanation of the material topic and coverage	23	
103-2	Management approach and its components	23	
103-3	Evaluation of management approach	23	
416-1	Evaluation of the health and safety impacts of product or service categories	23	







GRI	DESCRIPTION	PAGEORREFERENCE	EXTERNALVERI
GRI 417 - Marketing and L	abeling (2016)		
103-1	Explanation of the material topic and coverage	26	
103-2	Management approach and its components	26	
103-3	Evaluation of management approach	26	
417-1	Requirements for information and labeling of products and services	26	
417-3	Non-compliance cases related to marketing communications	26	








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SASB INDEX

SASB	TOPIC
RT-CH-110a.1.	Greenhouse Effect Gas Emissions
RT-CH-110a.2	Greenhouse Effect Gas Emissions
RT-CH-120a.1	Air quality
RT-CH-130a.1.	Energy management
RT-CH-140a.1.	Water management
RT-CH-140a.3	Water management
RT-CH-150a.1	Hazardous waste management
RT-CH-210a.1	Relationship with the community
RT-CH-320a.1	Occupational health and safety
RT-CH-320a.2	Occupational health and safety
RT-CH-540a.1	Operational Safety, Preparedness and Response to Emergencies

METRICS	PAGE OR REFE
Scope 1 gross global emissions, percentage covered by emission limitation regulations	31
Discussion on the strategy or short- and long-term plans to manage Scope 1 emissions, goals for emission reduction and an analysis of the results related to these goals	31
Emissions into the air of the following pollutants: (1) NOX (excluding N2O); (2) SOX; (3) Volatile organic compounds (VOC); and (4) Hazardous air pollutants (HAP)	35
(1) Total energy consumed; (2) Percentage of grid power; (3) Renewable percentage; (4) Total auto-generated energy	33
(1) Total water extracted; (2) Total water consumed, percentage of each in areas with high or extremely high water stress	36
Description of water management risks and analysis of the mitigation strategies and practices	36
Quantity of hazardous waste generated, percentage recycled	39
Discussion on the participation processes to manage risks and opportunities associated with the communities' rights and interests	68
(1) Total Recordable Incident Rate (TRIR) and (2) Mortality rate for a) Direct employees and b) Contract employees	44
Description of the initiatives undergone to evaluate, oversee and reduce direct and contract employees' exposure to long-term risks to their health (chronic)	44
Process Safety Incident Count (PSIC), Process Safety Total Incident Rate (PSTIR) and Process Safety Incident Severity Rate (PSISR)4	53



EFERENCE		

YPF

2020-2021 SUSTAINABILITY REPORT

NOTES

- 1 2020 YPF Sustainability Report.
- 2 Responsible Environmental Care Program.
- 3 La Plata Industrial Complex (CILP): YPF refining complex located in La Plata.
- 4 Sales to third parties in quantity (tons) of product sold.
- 5 For more information see: https://echa.europa.eu/es/

6 KKDIK: Kimyasallarin (Chemicals), Kayit (Registration), Degenlendirme (Evaluation), Izni (Authorization), Kisitlanmasi (Restriction).

7 YTEC: Technology company created in 2013 by YPF (51%) and CON-ICET (49%).

8https://www.ypf.com/productosyservicios/quimica/Paginas/index.html

9https://www.ypf.com/productosyservicios/quimica/Paginas/index.html

10 The Chamber of the Chemical and Petrochemical Industry is a non-profit civil association, founded in 1949 in order to represent companies in the chemical and petrochemical sector. It brings together more than 170 related companies that represent 80% of the industrial added value of the sector, made up of large, medium and small companies with international and national capital.

11 The methodology developed by YPF was approved by the United Nations in 2007 under the name of AM0055 "Baseline and Monitoring Methodology for the Recovery and Use of Residual Gas in Refinery Facilities."

12 Collected from surface or underground streams, or the public water supply.

13 Discharged water: discharged to a receiving body (surface or underground), channels, sanitation network, etc. The water is discharged in compliance with the conditions established by the application authority.

14 ICEP: Health exam compliance rate: Number of health exams year of calculation/own personnel.

15 ICER: Test compliance rate in the population at risk: Number of tests 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.

16 Specialized Center for Standardization and Accreditation in Health.

17 The value includes CIE staff.

18 The value includes CIE staff.

19 See Operational Excellence Policy

20 Exposure (E): How often the initiating event could occur in the evaluation scope.

21 Level 1 and 2 process safety event rate: 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)

22 Formula: (Total count of level 1 events/hours worked by own employees and contracted personnel) x 200,000.

23 Formula: (Total count of level 2 events / hours worked by own employees and contracted personnel) x 200,000.

24 VUCA: Volatile, Uncertain, Complex, and Ambiguous.

28 The percentage increase in the total annual compensation of the highest-paid person in the organization divided by the average percentage increase in the total annual compensation of all employees of the organization, excluding the highest paid person.

30 Manufacture at the request of a third party, owner of the inputs or the necessary means for the elaboration of a product or work.

31 Martina Azcurra is also an alternate director of Company MEGA and chair of the Board of Directors of Profértil; both companies owned by YPF.

25 BANI: Brittle, Anxious, Non-linear, and Incomprehensible.

26 Online tool that allows creating collaborative murals.

27 Grupo YPF: YPF S.A. and affiliated companies.

29 For more information: purchasing and hiring conditions (ypf.com)

32 YPF's Code of Ethics and Conduct is available on its website; to see the Spanish version click here; for the English version, click here.

33 YPF's Anti-Corruption Policy is available on its website; to see the Spanish version, click here; to see the English version click here.



YPF



