# PHARMACEUTICAL SECTOR IN URUGUAY

APRIL 2024

Uruguay XXI
INVESTMENT, EXPORT AND COUNTRY BRAND PROMOTION AGENCY

# TABLE OF CONTENTS

# WHY INVEST IN URUGUAY?

## HUMAN AND VETERINARY PHARMACEUTICALS SECTOR

- Uruguay presents several across the board strengths that give weight to its value proposition for attracting investment and export development focused on Life Sciences (pharmaceutical industry and medical devices, animal health and biotechnology-based projects).
- Reliability, stability, institutional strength, quality of life, proven track record as a business hub for multinational and multi-Latin pharmaceutical companies, access to qualified talent and tax incentives. In addition to its track record and institutional strength, Uruguay is a country with 3.4 million inhabitants, this allows it to quickly cover its domestic demand without interfering with regional supply.
- Uruguay offers a combination of services and complementary investment opportunities, ranging from developing new drugs to the most advanced services in the value chain of regional distribution and administrative back office or customer service, shaping a cluster mostly composed of multinational and multi-Latin companies.
- According to the latest survey carried out among foreign companies (2023), 84% of foreign investors are either satisfied or very satisfied with the business climate in Uruguay. Economic, political and social stability, legal security, tax incentives, foreign exchange freedom and the freedom to repatriate dividends are among the main reasons why they choose to invest in Uruguay. Also, when asked about investment incentives, the high level of satisfaction with the investment law (94%) and with the free trade zone regime (87%) stands out.
- Several international pharmaceutical as well as medical device companies have successful operations-in the country either as global trade and service hubs (establishing regional distribution centers, trading centers and support services); as production hubs (through the construction of new facilities and/or the acquisition of local companies in both human and animal health) or as R&D service hubs (CROs, Diagnostics, Startups).
- To assist production-related activities in the pharmaceutical sector, there is a dynamic ecosystem in place to support innovation that collaborates in the introduction of new product lines or in the implementation of innovation projects between companies and research groups. This ecosystem includes a wide range of activities spanning from biotechnology, diagnostics, clinical research, medical devices and components, alongside startups and research groups that support R&D activities.

- More information: https://www.uruguayxxi.gub.uy/en/invest/sector/life-sciences/

# EXECUTIVE SUMMARY

The global pharmaceutical sector has seen exponential growth in recent decades. Its scope is continually expanding, moving from traditional manufacturing and commerce to a major licensing and patenting market. Although the sector covers a wide range of areas, this report focuses on activities related to human and animal pharmaceutical products - both traditional and those that integrate biotechnology in their processes - as well as medical equipment.

In Uruguay, the pharmaceutical sector has also grown significantly. Although there have been companies connected to the industry since the beginning of the 20th century, their number and production capacity have multiplied considerably in the past 30 years.

Uruguay offers a set of complementary services and investment opportunities, ranging from knowledge generation and drug production to advanced services in the value chain of trade, regional distribution and back office or customer service (business service centers), thus shaping a cluster driven by foreign direct investment.

Pharmaceutical and veterinary companies operate in Uruguay through different business platforms. The following table shows both some of the companies that carry out trade and service *hub* activities, as well as those that develop production and innovation activities.

## HUMAN PHARMACEUTICAL COMPANIES IN URUGUAY

| | TRADE & SERVICES<br>RDC / Trading Procurement/ Sales / Service Centers | MANUFACTURING & INNOVATION<br>Drug production<br>R&D Centers/Projects |
|---|---|---|
| EXPORT | MEGALABS – ERIOCHEM – EUROFARMA | |
| EXPORT | MERCK – ROCHE – ABBVIE – KNIGHT – ADIUM PHARMA – GADOR – ECKENER BRAUN - ASTRAZENECA – GSK – SANOFI – ABBOT - BOEHRINGER INGELHEIM<br>SHIMADZU - TERUMO | LIBRA – ION – ICU VITA – APITER – TERRY-DISPERT HAYMANN – URUFARMA – CLAUSEN – CELSIUS – FARMACO U. – GRAMÓN BAGÓ<br>INTEGER – BIOGENESIS - ELECTROPLAST |
| DOMESTIC MARKET | BAYER — PFIZER – MSD – TEVA – JANSEN (J&J) - SCIENZA | SZABO – ANTIA MOLL – SERVIMEDIC – NOASFARMA – HOMEOALEMAN – DERMAGROUP<br>CAILLON – LAZAR – NOLVER - SPEFAR |

Foreign pharmaceutical companies, domestic companies, medical equipment companies.

Within these platforms, most of the companies are mainly focused on the foreign market, while others cater exclusively to the local market[1]. The dynamics of the sector show that, while companies start operations on some of these business platforms, over time, they incorporate new activities and expand their presence into other platforms. After starting regional logistics activities in the country, many international companies' logistics activities in the country added other service activities as part of their expansion strategy. It is also common for global companies focused on the domestic market to include activities in commercial and service for companies with production activities aimed at the domestic market to leverage their growth through exports. An example to consider is the case of ***Megalabs***, with its presence on platforms for trade and services *hubs*, as well as production and innovation with a focus on the international market.

A significant proportion of the main companies in the industry are owned by foreign capital (in dark blue). Although the companies that make up the medical equipment sub sector are not numerous, the presence of ***Integer*** -also of foreign capital- with an important flow of exports implies that this sub sector has a significant size.

## VETERINARY COMPANIES IN URUGUAY

| | **TRADE & SERVICES**<br>RDC – Trading/Procurement/<br>Sales/Service Centers | **MANUFACTURING & INNOVATION**<br>Drug production<br>R&D Centers/Projects |
|---|---|---|
| **EXPORTS** | **TECNOVAX** | **VIRBAC – MSD – BOHREINGER/MERIAL – KONIG – LAB. ROSEMBUCH – TECNOBLEN – LAB. URUGUAY**<br>**MICROSULES – LA BUENA ESTRELLA – SYNTEX - LAB. CALIER – CIA. CIBELES – RIPOLL VET – LAB. BIOMEGA – LONSA – MVDMART – DESPRO – BIOKHEMIA – UNIMEDICAL - PROBIOMONT** |
| **DOMESTIC MARKET** | **BIOGENESIS BAGO**<br>**ZOETIS**<br>**LABYES** | **TAFIREL**<br>**LAB.PASTEUR – BIOLAB – ENTOX – COLBIN – ELUFAR – LAB. AC – ADLER – BIOSUR – LABORATORIO SUR - TOFANA** |

Foreign pharmaceutical companies, domestic companies.

[1] e.g.: BAYER –– PFIZER – MSD – TEVA – JANSEN (J&J) – SCIENZA

Looking at the animal pharmaceuticals sector from the same perspective, a large majority of companies are mainly focused on the production and innovation platform and are export oriented.

Unlike the human pharmaceuticals sector, there is only one company that carries out regional logistics activities from Uruguay and few international companies have commercial offices to serve the domestic market.

Based on the information available, the following sections describe each of the defined segments.

Table No. 1 presents a summary of the main data on the sector.

Table No. 1
**Main Indicators (2023)**

| PHARMA SECTOR | | COMMERCIAL AND SERVICES HUB | | MANUFACTURE AND INNOVATION HUB | | TOTAL** |
|---|---|---|---|---|---|---|
| | | Logistics – Trading – SSC | Import – Representation | Export* | Domestic market | |
| HUMAN PHARMA. | Companies | 60 | 15 | 20 | 25 | 120 |
| | Employment | 1,540 | 310 | 3,450 | 800 | 6,100 |
| VET. | Companies | 1 | 10 | 20 | 10 | 41 |
| | Employment | 5 | 105 | 1,160 | 80 | 1,350 |
| TOTAL | Companie | 61 | 25 | 40 | 35 | 161 |
| | Employme | 1,545 | 415 | 4,610 | 880 | 7,450 |
| | Millions | USD 857 transits | USD 399 imports | USD 310 exports | USD 511 Products consumed domestically | USD 822 Production |

* Includes medical device exporters. Includes exports from Free Trade Zones,
** Total production is the sum of the exported amount and the production destined for internal distribution.

*Considering the human and animal pharmaceuticals sectors plus the medical devices sector,* ***the total production of the sector is estimated at USD 822 million for 2023.*** *This represents* ***11% of Uruguay's industrial GDP*** *and 1% of the total GDP*[2]

**With total exports amounting to USD 310 million** (including medical equipment and exports from free trade zones), t**he sector represents more than 2.7% of overall exports in 2023.** This year, USD 179 million was exported in human pharmaceutical products (more than half of them from free trade zones), USD 90 million in veterinary products, and USD 42 million in medical equipment.

Uruguay's importance as a regional hub for human medicines can be seen in the increasing number of products that enter the country as **transit**, and that have Europe and North America as its origin and have Latin American countries as final destination. **In 2023 transits reached USD 857 million.**

*The sector directly* ***employs*** *almost* ***7,500 people*** *and is comprised of over* ***160 directly related companies****,* ***120*** *of which belong to the* ***human pharmaceuticals*** *and* ***medical equipment segment and the remaining 40 belong to animal health.***

Of the total employment, **6,100 jobs are in human health.** Most of the employment generated (4,610 people, or 76%) corresponds to exporting companies, most of which are foreign or have been acquired by foreign economic regional groups. Companies engaged in trade and service *hub* activities are also important generators of employment. These companies generate around 1,550 direct jobs, including the specialized suppliers in the logistics chain mentioned below. On the other hand, the companies that handle the domestic supply of pharmaceutical products of foreign origin - often local representatives of international laboratories - employ an estimated 310 people. The **animal health segment generates around 1,350 direct jobs.** In addition, information gathered on the **biotechnology-start-up sector,** and it is estimated that it generates approximately **200 highly skilled jobs**.

[2] A comparison with the Gross Value of Production would be more appropriate, but this data is not available for 2023.

The sector's ecosystem is completed by specialized science parks, public and private universities that offer training options and contribute to research in the sector, together with research groups (+160) and a growing number of start-ups (+30).

# 1. INTERNATIONAL TRENDS

The global market for health-related services and products has shown a significant growth trend in recent decades, driven by the rise in the world population, the increase in life expectancy and the aging of this population. Advances in biotechnology (cell and gene therapies), together with artificial intelligence and the intensive use of data, suggest that this market will continue to expand rapidly.

The global pandemic caused by COVID-19 has highlighted how strategic it is to have a strong health care industry, not only due to its direct link to public health, but also because it is a highly innovative sector that has significant technological externalities[3].

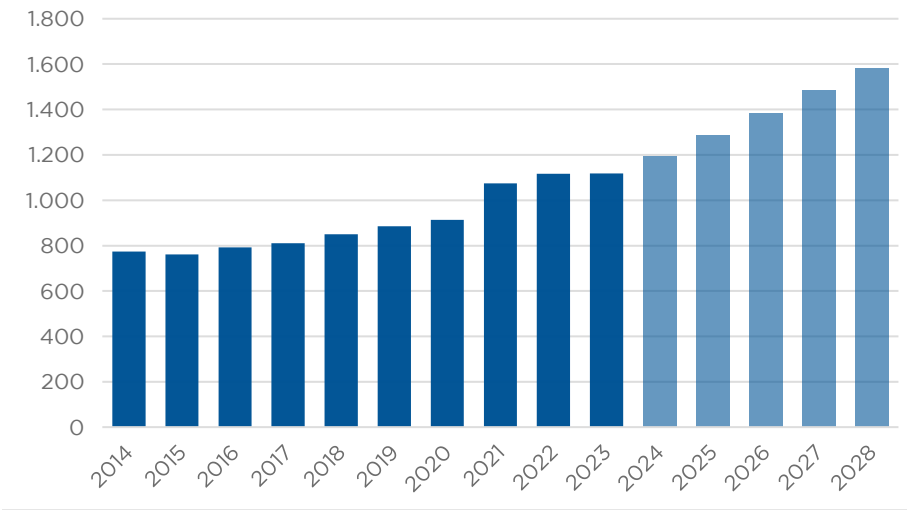
The pandemic also revealed some vulnerabilities of the sector. Disruptions to supply chains and rising freight costs have caused distortions in the industry. The high demand to develop vaccines and treatments related to COVID has diverted resources from the care and research of other pathologies. The dynamics of the pandemic showed, on the one hand, a strong increase in demand for antiviral drugs, medical hygiene products and respirators, while demand for other pharmaceutical or medical products decreased due to limited funding and because many medical procedures were postponed. According to the World Health Organization, 31% of countries reported suspension of treatments for cardiovascular diseases, 42% for cancer and 49% for diabetes[4].

At the product level, the sector is experiencing growth in the generic drug market compared to brand-name drugs, making them more accessible to the general population. In addition, the diagnosis of new diseases and the demand for new treatments create a multiplicity of needs and a high specificity that drives the sector and is expressed through the so-called orphan drugs[5]. For over a decade, the growth of orphan drugs has outpaced that of non-orphan prescription drugs. The share of orphan drugs in global prescription drug sales has doubled over the past decade, rising from less than 10% in 2014 to almost one-fifth today.[6]

[3] "Prospects for International Trade in Latin America and the Caribbean 2021: in search of a resilient and sustainable recovery", ECLAC.
[4] Source: Euromonitor International – "Covid-19 Impact on Pharmaceuticals and Medical Equipment Industry".
[5] Orphan drugs are used to treat rare diseases. They usually require long periods of time to be developed, as well as significant investments, and are still characterized by high levels of uncertainty during the formulation process. For these reasons as well as for public health reasons, the normal development plans include companies that have government support.
[6] Source: "Orphan Drug Report 2024" – Evaluate

The growth experienced and projected for the industry is clearly reflected in the sales evolution of pharmaceutical and medical technology products, as shown in Graph No. 1.

Graph No. 1
**Global medication sales**
(USD Billions)




Source: Evaluate Pharma – "Evaluate World Preview 2023"

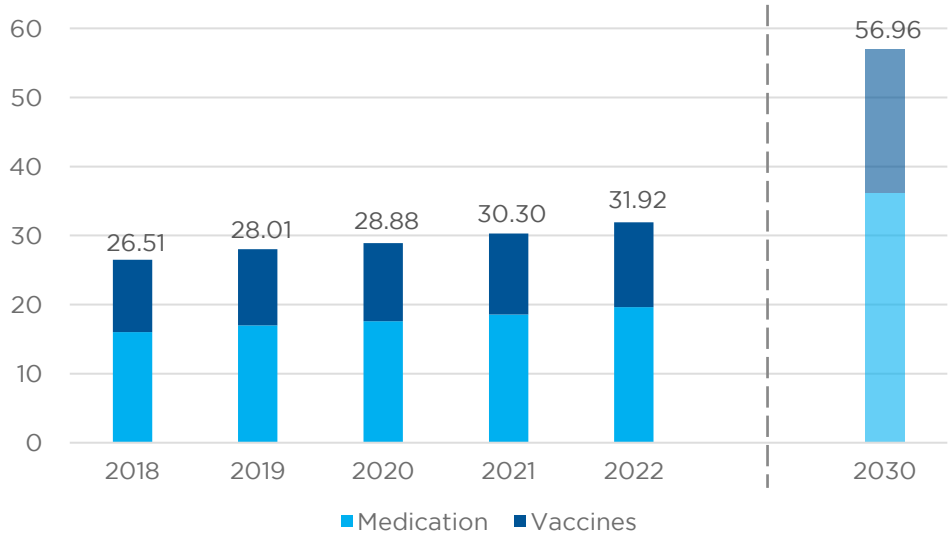
According to Evaluate Group data and projections, global medication sales in 2021 exceeded USD 1 trillion. They are expected to **grow at an average annual rate of 7% in the coming years and obtain a total value** close to **USD 1.6 trillion in 2028.**

As for veterinary products, although they have similarities with those used for human health, the market has a different logic and should be analyzed separately.

Although the global veterinary health market is growing, it is much smaller than the human health market. Key factors such as technological advances in diagnostics and therapies and increasing productivity - which in turn increases the risk of zoonosis transmission - are part of the explanation for this trend. In addition, growing awareness of animal health as a result of government initiatives is driving the growth of this market, estimated at some USD 32 billion, which is expected to grow to USD 57 billion by 2030[7].

[7] Source: Veterinary Medicine - Market analysis & segment forecast (2021-2028), Grand View Research.

Graph No. 2
**Animal Health Global Market**
(USD Billions)




Source: Global Veterinary Medicine Market Research Report - Market Research Future

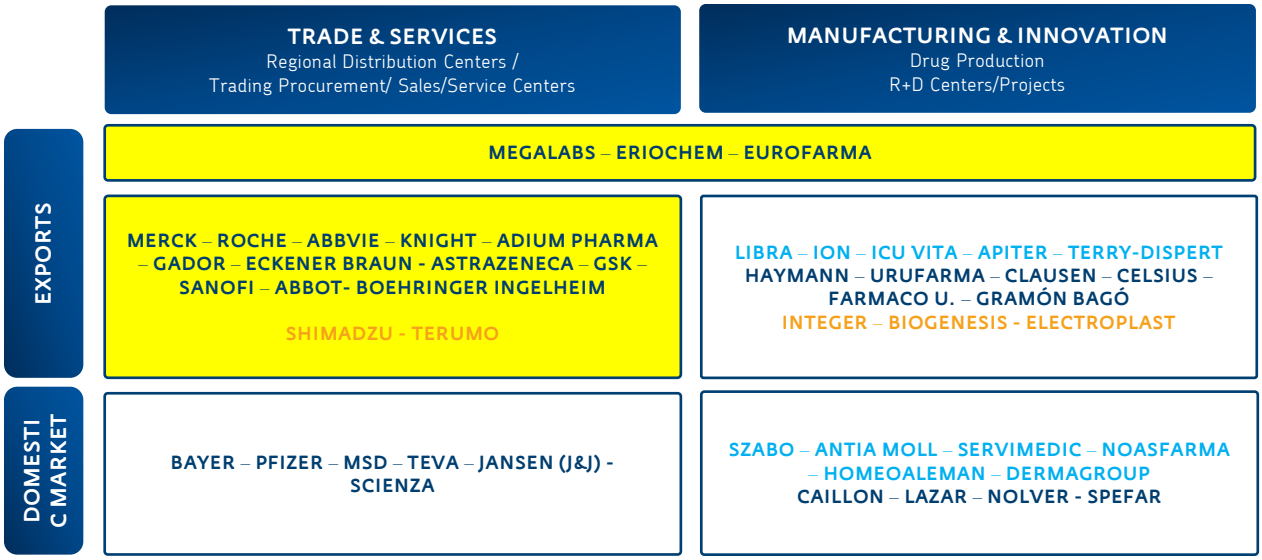
This global industry growth scenario, together with the factors mentioned above, reinforces the importance of innovation activities for pharmaceutical companies, along with a concern for maintaining profitability. This context generates opportunities for related services, such as manufacturing activities, innovation and research services, or even distribution. Many of these opportunities are applicable to the pharmaceutical sector in Uruguay, to be discussed below.

# 2. URUGUAY: TRADE AND SERVICES HUB

*Hub* activities have been specifically located in the free trade zones (mainly *Parque de las Ciencias* and *Zonamerica*) and the free airport (LACC), which have the necessary infrastructure to offer logistics and distribution services, fractioning, conditioning and cold storage activities.

Sixty companies participated in the dynamics of the pharma *hub* in 2023, including major multinational companies such as Astrazeneca, Sanofi and GSK. Most of these companies are foreign multinationals and employed around 1,500 people in 2023.

## TRADE AND SERVICE HUB COMPANIES



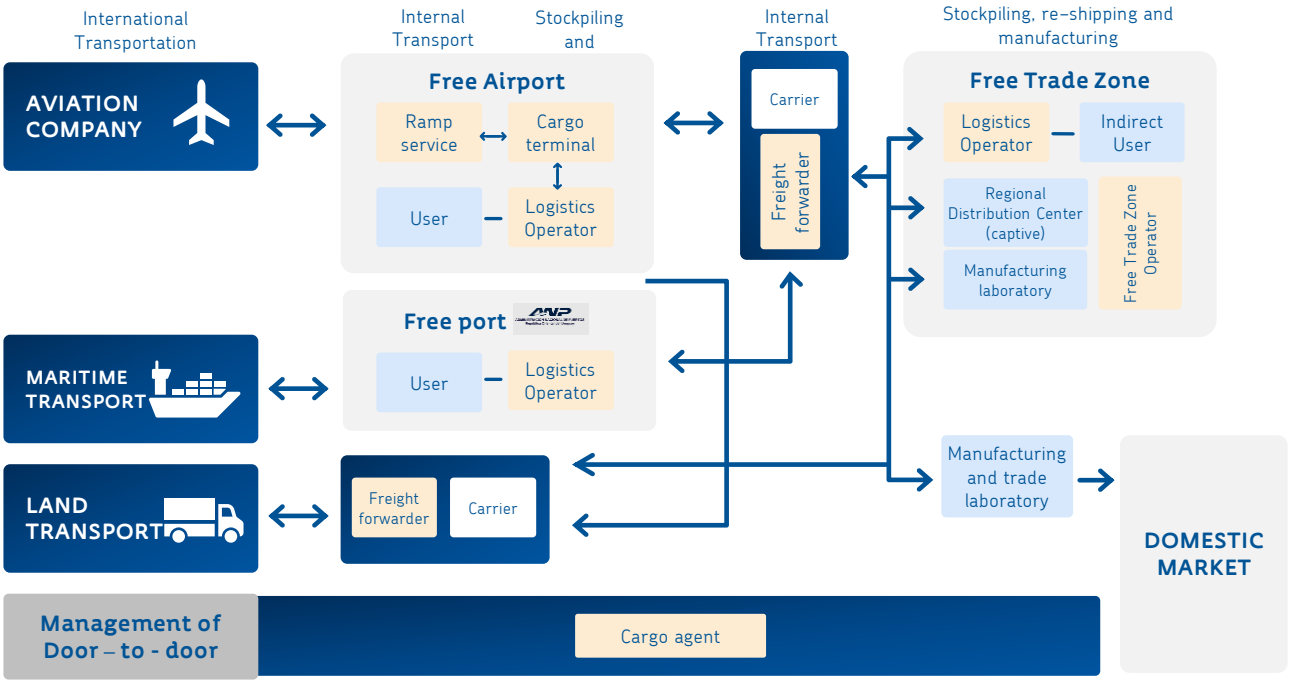

Foreign pharmaceutical companies, domestic companies, medical equipment companies.

## 2.1.REGIONAL DISTRIBUTION

Uruguay has a long history in logistics and distribution activities for the region, making it a logistics hub of reference. In the country, the sector encompasses various operations carried out at ports, airports and free trade zones.

Pharmaceutical companies are the main players, developing their activity as captive distribution centers or through specialized logistics operators. In addition to these, there are several suppliers that complete the chain (carriers, freight forwarders, shippers and specialized cold chain suppliers).

Figure No. 1
LOGISTICS HUB STAKEHOLDERS
Value chain




For the pharmaceutical sector in particular, the country is positioned as a regional *hub* for Latin America, providing significant advantages for the establishment of regional distribution centers. The regulatory framework, geographical location and established infrastructure constitute Uruguay's main attractions in this segment.

Uruguay offers important regulatory advantages for logistics operations, with incentives for the installation of regional distribution centers (RDCs) and for the handling of goods in transit. These operations are carried out directly by international pharmaceutical companies or through third-party logistics operators (3PLs). These incentives include the free trade zone, free ports and airport, bonded warehouses and temporary admission regimes, all of which are detailed in the section: Regulatory Framework.

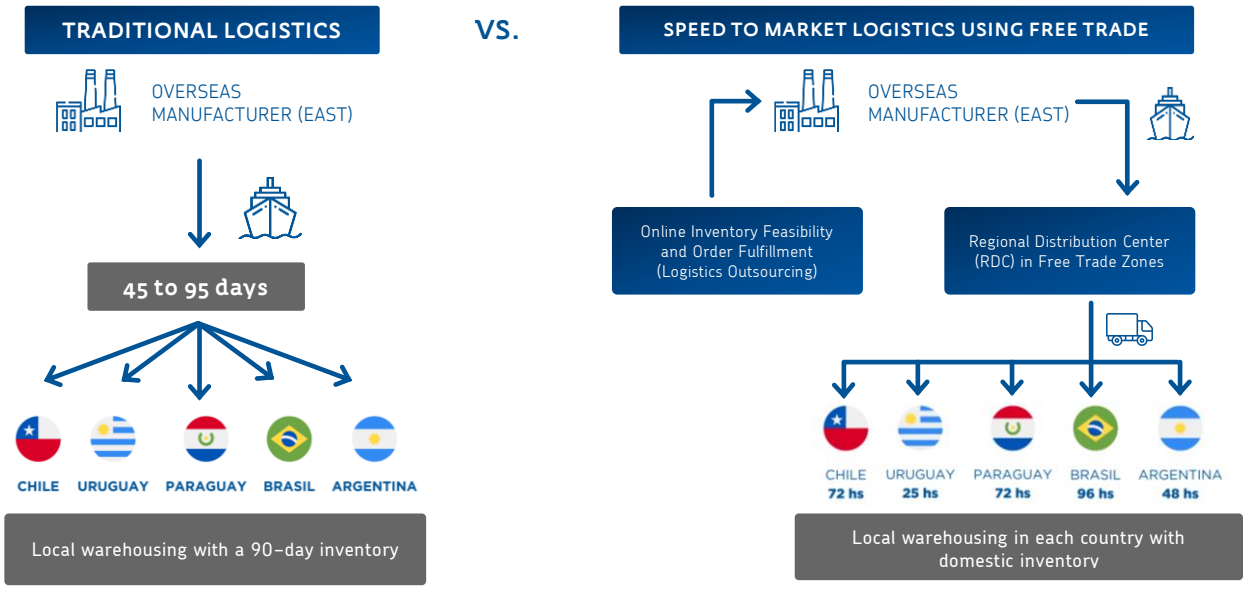
The country's geographical location also allows easy access to the main cities in the region, in addition to having two ports at the main gateway to the southern Atlantic coast, with direct access to the Paraná-Paraguay-Uruguay waterway. In turn, the modern Carrasco airport and the most extensive ground transportation network in Latin America are attributes to be highlighted in terms of infrastructure. Uruguay is the ideal location to have a *hub* in Latin America complementary to the northern *hub* (Panama).

In addition to the purely pharmaceutical activities, there are also those related to the transit of cannabis-based medicine, Uruguayan legislation provides for the promotion of these activities in Decree 282/2020, which governs the regulation and control of logistical operations with therapeutic medical cannabis products in customs warehouses authorized by the Ministry of Public Health (MSP in Spanish) and the Institute for the Regulation and Control of Cannabis (IRCCA, for its acronym in Spanish). Thus, the warehouses can receive imports - prior authorization from the Ministry of Public Health- to be redistributed in the region.

This system would enable, for instance, the entry of medical cannabis products into the Brazilian market, where imported products are specific to each patient. By setting up a hub it is possible to import complete lots, split them up and carry out operations between Uruguay and Brazil.

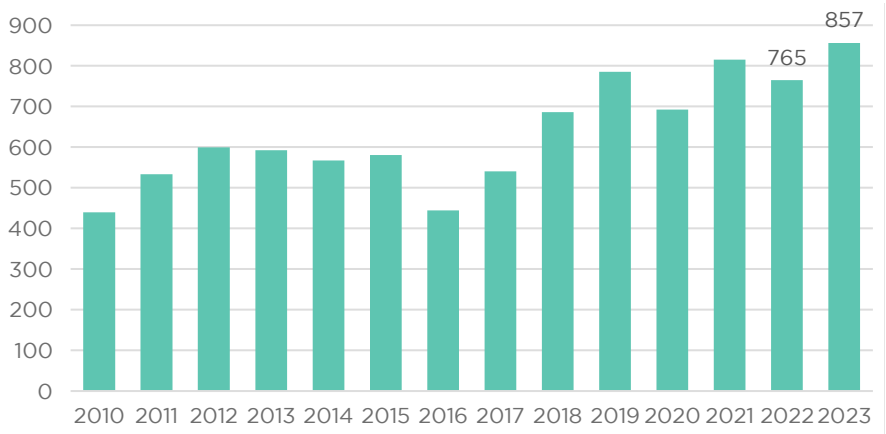
Figure No. 2

TRADITIONAL LOGISTICS VS. STM LOGISTICS




The growth in logistics hub activities can be easily observed in Graph No. 3. Transits of pharmaceutical products have presented a sustained upward trend since 2010, except for the 2016 drop. In five years, it went from an average annual transit flow of USD 500 million to almost USD 900 million in the past year. This business model has established itself as an outstanding alternative for companies catering to the sector in the region.

Graph No. 3
**Pharmaceutical Products Transits**
(USD Millions)



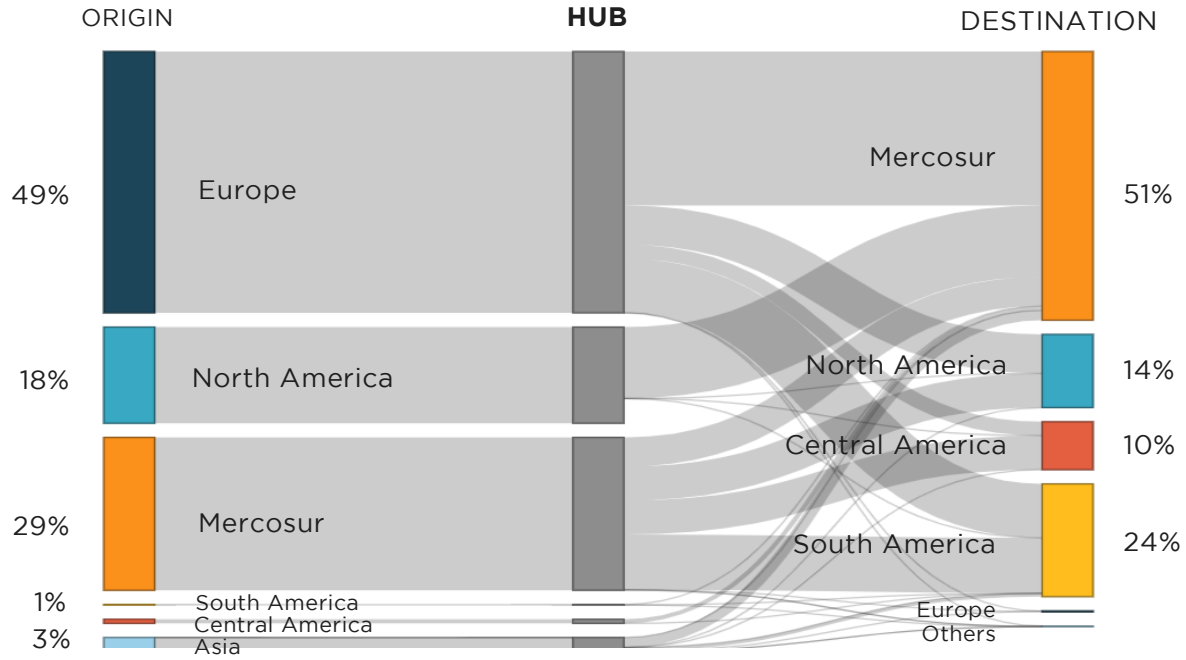

Source: compiled by Uruguay XXI based on information from the National Customs Directorate (DNA). Includes exports similar to transits amounting to approximately USD 10 million per year. These figures do not include HUB activities carried out exclusively within the airport, since the goods do not change customs premises and are not recorded as transits.

The main transit flows of pharmaceutical products enter the country from outside the region, arriving from Europe and the United States, and are meant for all Latin America, but mainly Mercosur countries.

As can be observed in Figure No. 3, **in 2023 49% of the transits came from European countries (Italy, Switzerland, Germany, Sweden) and 18% from North America (mainly the United States**). On the other hand, 29% of transits come from Mercosur, mostly from Argentina.

In terms of the destination of these transits, they are distributed from Uruguay to all Latin America. Fifty-one percent of the medications that pass through the country go to Mercosur countries. Around 24% are sent to other South American countries, 14% to North America (Mexico) and 10% to Central America.

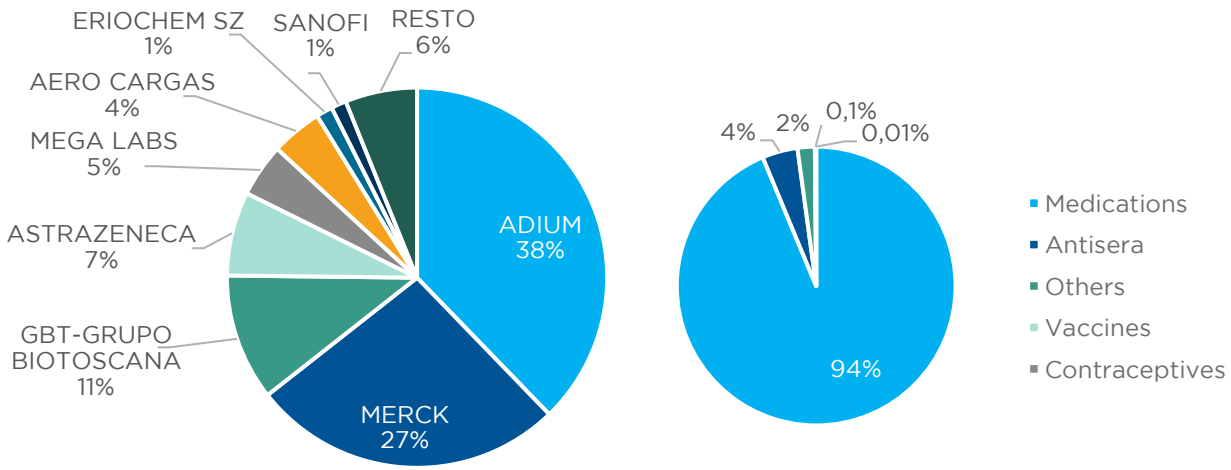
Figure No.3
**Pharmaceutical products -Transit Flows**
(2023)




Source: Compiled by Uruguay XXI based on National Customs Directorate (DNA).

A large percentage of transits are focused on final products, mainly medicines, as reflected in their distribution in 2023: 94% medications, 4% antiserums, and 2% contraceptives, while vaccine transits are minimal.

Graph No. 4
**Pharma hub movements by company and product**
(2023)




Source: Uruguay XXI based on DNA.

In 2023, transit operations came mostly from 6 companies that accounted for approximately 90% of operations. Among the companies that exclusively carry out distribution activities, *AstraZeneca* and *GSK* stand out. There are other companies that also distribute their products to the region from Uruguay, as well as carry out other support or production activities (see following sections).

## 2.2. TRADING AND GLOBAL SERVICE CENTERS

Uruguay offers a series of strengths for the development of business-related service activities, creating opportunities for the establishment of captive operations such as regional *headquarters* or service centers (e.g., foreign trade, supply chain, finance and accounting, human resources, customer service, and research and analysis) to support regional and global businesses.

The country is positioned as a reliable platform for the provision of high-quality services at competitive costs. This has fostered international companies to establish service centers, improving their business processes and regional insertion.

In the pharmaceutical sector some companies with regional distribution centers have incorporated support and/or commercial service activities with or without merchandise transit (e.g. Merck, Adium, Knight).

## 2.3. MAIN COMPANIES

**Adium Pharma** established a regional distribution center in Uruguay (Zonamerica) from which the company carries out secondary packaging of finished generic drugs and raw materials, as well as their distribution to most Latin American countries.

London-based **AstraZeneca** is active in the marketing and distribution of specialty pharmaceuticals. Its regional distribution center has been operating in Uruguay since 2016. From this RDC the company carries out a logistics operation to supply finished products to Argentina and Brazil. The cargo coming from Europe by air and sea is consolidated in trucks at the *hub* located inside the free airport, and then it is transported by land to Buenos Aires and São Paulo.

**GSK** participates in the marketing and distribution of specialty pharmaceuticals. In 2021 it installed its Regional Distribution Center in Uruguay. This operation optimizes transportation and demurrage costs by consolidating the cargo at the Geel hub (Belgium) and shipping the containers by sea for subsequent deconsolidation and cross-docking at the Free Airport-to be later shipped overland to the final market. In 2022, a hub for vaccine distribution to Argentina, Brazil, Chile, Paraguay, Bolivia and Uruguay was added, with the main advantages include cost reduction and the possibility of delivering to almost all South America by land, improving inventory management and the sturdiness of the logistics chain.

**Abbott** is a global healthcare company engaged in discovering new medicines, technologies and management approaches in healthcare. Its product portfolio ranges from nutritional supplements and laboratory diagnostics to medical devices and pharmaceutical therapies. In 2015, the company set up its regional offices in a free trade zone and currently supports all Latin America and the Caribbean in finance, procurement, sourcing, distribution, and quality control activities.

**Merck** operates in Uruguay as a regional distribution *hub* and provider of regional and global corporate services. The operation has steadily expanded in

line with the company's growth in Latin America. Currently, 175 people work on all its platforms. In terms of logistics, Merck carries out packaging and distribution activities in the country for biotechnology products manufactured in Europe, which are then shipped to several countries in the region. Regarding services, the company operates a corporate services center (*Merck Business Services LATAM*) since 2018, which includes commercial activities, purchasing, finance and administration, and supply chain and legal support for the region.

**Roche** is a Swiss company that has been present in Uruguay for 75 years. Currently, the company employs around 150 people in the country for its Pharmaceuticals, Diagnostics and Diabetes Care divisions, and has regulatory affairs center that handles global operations. In addition, Roche manages the Bolivian and Paraguayan markets from Montevideo and has a regional distribution center (RDC) from which all logistics operations in Latin America are coordinated, coordinating the supply chain of goods from the production centers to its regional subsidiaries.

## 2.4. DOMESTIC MARKET

Another operation that can be classified within the trade and services hub is the internal distribution of pharmaceutical products of foreign origin. This is often carried out by local representatives of international laboratories that do not maintain production plants in the country and instead import their products to supply the domestic market.

In addition to international pharmaceutical companies participating in these segments and distributing in the domestic market, there are other international laboratories that solely maintain commercial offices in Uruguay. As exemplified by *Bayer, Pfizer, Johnson & Johnson or MSD in the* human pharmaceuticals sector, and *Biogénesis Bagó, Zoetis and Labyes* among those for veterinary use.

## 2.5. SPECIALIZED SUPPLIERS

For the development and establishment of activities related to trade hubs and services, there are different business platforms and specialized suppliers for the pharmaceutical logistics chain. This business and support services ecosystem provides companies setting up in the country support throughout the logistics chain according to the degree of specialization required. This contributes to making the country more attractive to this demanding industry,

as well as to the constant improvement of the services provided. The following is a list of companies that provide services to foreign companies:

FREE TRADE ZONE OR FREE AIRPORT OPERATORS.

**Science Park** (PDLC by its acronym in Spanish) is a vast 85-hectare complex functioning as a logistics, industrial, services, and high-tech hub. Operating under the Uruguayan Free Zone regime, it has become a prominent campus for life sciences, high technology, and added-value activities in the region.

In operations since 2010, currently more than 90 companies benefit from PDLC´s state-of-the-art infrastructure to develop their regional or global businesses from Uruguay.

Located within the so called "innovation axis" of Canelones Department, Uruguay, PDLC boasts cutting-edge infrastructure and buildings specifically designed to accommodate complex service, commercial, and industrial activities.

This focus on industrial capabilities attracts major pharmaceutical companies that produce under the Free Zone regime. A prime example is Megalabs, which operates a massive 23,000 square meter facility housing its headquarters and a unique R&D center dedicated to producing sterile, solid, and ophthalmic medicines for distribution across the Americas.

Over 80% of the companies within the PDLC are involved in activities related to life sciences, high technology, and high added value. These activities encompass a wide range, including pharmaceutical and veterinary laboratories, suppliers of raw materials for human and animal health, and specialized service providers in the pharmaceutical industry offering services like engineering, clean rooms, auditing, packaging and prospectus production. Additionally, PDLC is home to logistics operators with expertise in handling health products, facilities Good Manufacturing Practices (GMP) complaint for drug and injectable production, and providers offering injectable manufacturing services, vials, pre-filled products, and analysis and physical-chemical quality control of raw materials and finished products for third parties. The park also boasts a GMP plant dedicated to the extraction of CBD oil and pure crystals, a cloning bank and plant specifically for THC extraction, a dedicated pharmaceutical R&D center, a Microbiology and Physical-Chemical Control Laboratory, a Genetic Diagnostic laboratory, a facility for the production of biological raw materials, and serum production plants.

BGI Genomics, a leading Chinese company specializing in integrated precision medicine solutions and next-generation DNA and RNA sequencing, recently established its first

laboratory in Latin America within Science Park, with a planned investment of US$10 million over five years.[8]

**Zonamerica[9],** with more than 30 years of experience, specializes in the design and creation of highly competitive business environments. A 90-hectare site that offers its clients an integral locative solution based on world-class infrastructure and modern technology services. It excels in the scalability and flexibility it provides its clients. Zonamerica currently employs some 7,000 people in more than 500 companies. With cutting-edge environmental conditions, it adopts values and carries out tangible actions in response to climate change, such as: measuring the carbon footprint, promoting the reuse of surface water from lagoons, managing the park's water footprint and its own water reserve.

With a strategic location, just 10 minutes away from Carrasco International Airport and 40 minutes from the International Port of Montevideo, the site is home to nearly 70% of Uruguay's pharmaceutical exports. Pharmaceutical companies, distribution centers, clinical analysis laboratories, and other players in the Pharma and Life Sciences industry find the right solution to develop their business and operate from Zonamerica to the region. Some of the industry companies that today operate from Zonamerica are Adium Pharma, Merck, Va-q-tec, Abbot, Boehringer Ingelheim, Sanofi, Fresenius Medical Care, Shimadzu, and Eurofarma. A robust ecosystem in which logistics activities, regional distribution centers, industrial or value-added tasks, and the centralization of regional or global services are developed. [10]

**Latin American Cargo City (LACC)** is the only free airport in South America. It is a strategic business unit of Uruguay's Cargo Terminal (TCU, for its acronym in Spanish) dedicated to the trading and provision of regional distribution services in several industry verticals, including pharmaceuticals, clinical trials, animal health, medical devices, high technology and spare parts.

LOGISTICS OPERATORS

**Selenin** is a logistics operator specializing in pharmaceutical products (medical equipment, diagnostic reagents, therapeutic devices, cosmetics, nutritional supplements, food, etc.) established in 2008. It operates under the

[8] Source: Information provided by Science Park Free Trade Zone Link
[9] Source: Information provided by Zonamerica Free Trade Zone Link
[10] For further information click here.

free zone regime and is in the Parque de las Ciencias. Its services range from storage of raw materials and pharmaceutical specialties to secondary packaging of finished products.

**Costa Oriental**, headquartered in Zonamerica and Colonia's Free Trade Zone, is a major logistics operator in Uruguay. The company currently operates as a regional distribution center for international companies in a wide variety of sectors (pharmaceutical, chemical, electronics, retail, spare parts and raw materials), optimizing its logistics costs by combining regional inventory from Brazil, Argentina, Chile, Paraguay and Uruguay in its facilities.

**Grupo RAS** is an international company focused on logistics services planning and management since 1991. The company offers customized solutions in infrastructure and warehousing; customs; regional and international distribution; transportation by sea, air and land; foreign trade services and industrial projects.

**Farmalog** is a Uruguayan pharmaceutical warehousing and logistics company founded in 2010, a leader in the sector, providing services to domestic and multinational companies. It has 6000 $m^2$ of storage space, 8 cold chambers, and quality control laboratories to meet the needs of the pharmaceutical sector. In 2019, it created Farmalog International Logistics, which includes a 3,000 $m^2$ warehousing facility and a quality control laboratory in a free trade zone.

**Farmared-Logired,** a leading company in logistics services for pharmaceutical and related products as well as consumer goods, has characterized itself for its commitment to excellence since its foundation in 1997. In 2001 it incorporated the Logired brand to serve consumer goods and launched its Logistics Center in 2013. With the goal of continuously improving, it has implemented technologies and automation to optimize logistical and administrative processes. A pioneer in sustainability, in 2023, it published its first report based on GRI Standards, demonstrating its commitment as a triple-impact company. In short, Farmared-Logired emerges as a key strategic partner for companies seeking to outsource their logistics services, offering quality, innovation and reliability at each stage of the supply chain (B2B and B2C) based on a solid commitment to sustainability and corporate responsibility.

**Supramar** is a Uruguayan company with 25 years of experience that offers logistics solutions to both national and international companies under the free port and free zone systems for goods in transit; from its

domestic warehouse for nationalized products, to local distribution (solely in Uruguay) using its own fleet of trucks.

COLD CHAIN PACKAGING

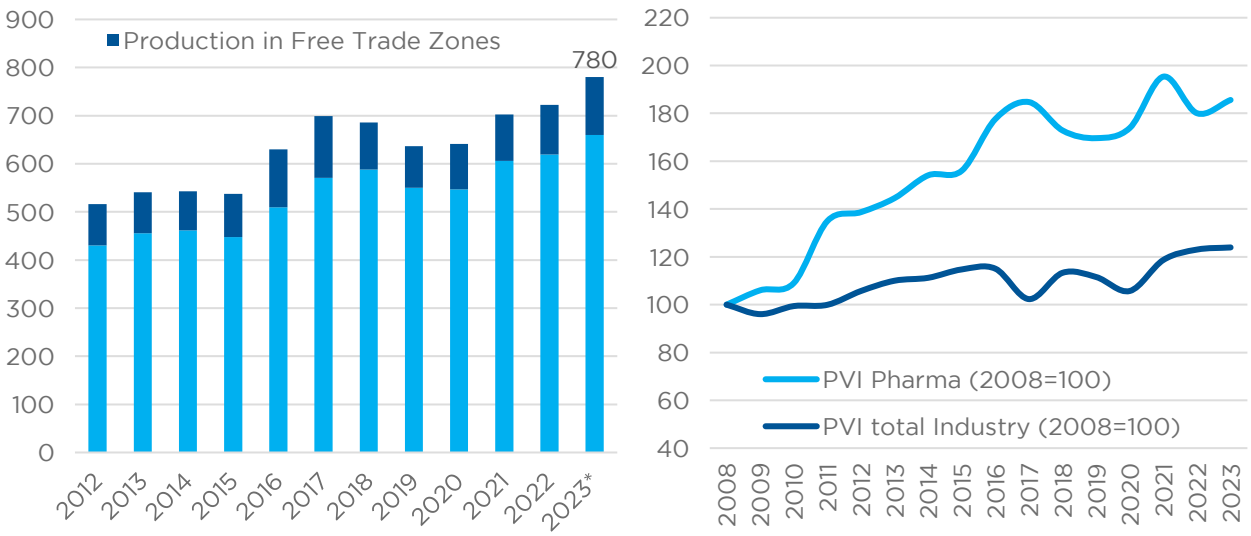
**Va-Q-Tec** is a German company specializing in high-efficiency thermal containers and boxes for temperature-controlled logistics that expanded its global presence in 2018 with a new headquarters and operations center located in zona franca from where it offers solutions for the transportation of pharmaceutical products to its various customers in Uruguay, Chile, Argentina, Paraguay  Va-Q-Tec is a German company specializing in high-efficiency thermal containers and boxes for temperature-controlled logistics that expanded its global presence in 2018 with a new headquarters and operations center located in Zona Franca, from where it offers solutions for the transportation of pharmaceutical products to its various customers in Uruguay, Chile, Argentina, Paraguay and Brazil. The facility in Uruguay serves as a key point for Va-Q-Tec's rental services in Latin America and as a logistics distribution hub for the Southern Cone. In 2023 it was acquired by Envirotainer and is undergoing an integration process.

**Cold Chain Technologies** is a global provider of advanced thermal packaging solutions for the shipment of temperature-sensitive medications, vaccines, and biological products, primarily serving the pharmaceutical industry. In Uruguay, the company operates its regional distribution center through a 3PL (Farmalog) located in zona franca. It also produces thermal insulation materials in the department of Canelones. In 2024 the process of integrating the recently acquired company Exeltainer began.

# 3. PRODUCTION AND INNOVATION HUB

The pharmaceutical industry, both the production of human and veterinary medicines, is one of the most important sectors of Uruguay's industrial core. According to preliminary estimates for 2023, the industry's Gross Value of Production (GVP) totals USD 780 million. This represents almost 8% of the Gross Domestic Product (GDP) of the manufacturing industry and is equivalent to 1% of the total GDP[11].

Graph No. 5
**Gross Value of Production and Physical Volume Index**
(USD millions and base 2008=100)




Source: Uruguay XXI based on Exante and the National Statistics Institute (INE, for its acronym in Spanish). * Estimated for 2023

The sector has shown significant growth in recent years, driven by the domestic market increase and higher exports. As can be seen in Graph No. 5, the volume of production has grown well above that of the industrial sector. This dynamism can be largely explained due to

[11] It would be more convenient to make the comparison in terms of Gross Value Added (GVA), which is the equivalent of the sector GDP, but there is no estimate for this value.

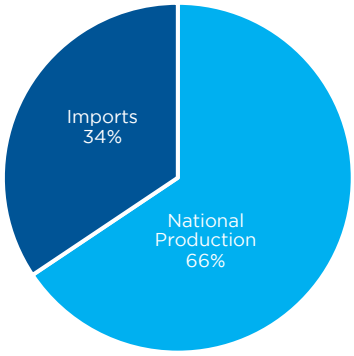
investments in the sector, that in the 2010-2023 period they exceeded USD 522 million and included the construction of new facilities, as well as the expansion of existing ones[12].

**The total size of the Uruguayan pharmaceutical market (production and imports) stood at USD 1.179 billion in 2023, with 66% coming from domestic production and the remaining 34% from imports**. These amounts refer to products for both human and animal health.

Pharmaceuticals for human use is the most important segment of this industry in Uruguay. It accounts for 86% of domestic demand and 67% of exports.

Table No. 2
**Pharmaceutical Market Structure**
(2023)

| **Structure of the Uruguayan market 2023** (USD Millions) | | | |
|---|---|---|---|
| | **Total** | **Human** | **Animal** |
| **Domestic production*** | 780 | 648 | 132 |
| **Imports** | 399 | 316 | 83 |
| **Market size** | **1,179** | **964** | **215** |
| **Domestic use** | 910 | 785 | 125 |
| **Exports** | 269 | 179 | 90 |




Source: prepared based on the Chamber of Pharmaceutical and Allied Specialties (CEFA, for its acronym in Spanish), Customs and Exante. Note (*): Estimate based on Exante projections and export data from Free Trade Zones.

**If exports of medical devices are included (USD 42 million), the Gross Value of Production totals USD 822 million and exports would reach USD 310 million.**

[12] Source: Ministry of Economy and Finance – Commission for the Application of the Investment Law (MEF - COMAP) || Investments by Mega Pharma, for USD 110 million, and Eriochem, for USD 7.5 million, both in free trade zones, are also accounted for.

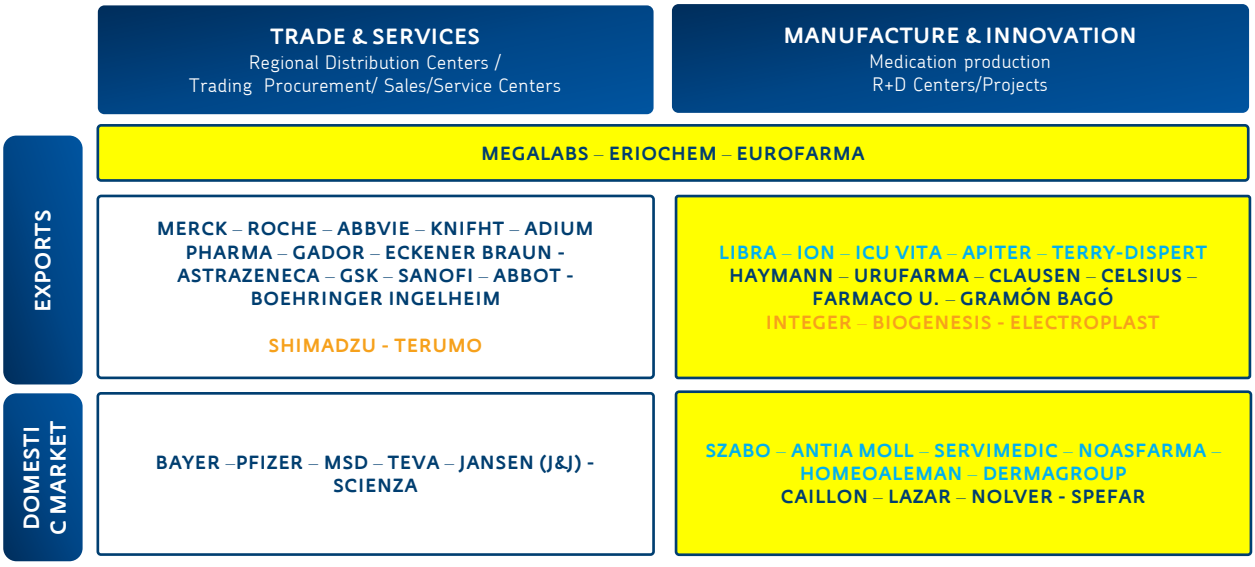
## 3.1.HUMAN USE

The human drug manufacturing segment has tradition in Uruguay. The first companies began operating in Uruguay in the late 1960s. Over the last few years and following a trend that is also present at the international level, multiple mergers and acquisitions (*M&A*) have taken place in the local market, with national and international companies absorbing smaller national laboratories.

Within the pharmaceutical industry, medications for human use account for approximately 83% of total production[13].

In terms of the industry structure, pharmaceutical laboratories for human use are mainly composed of multinational companies that manufacture globally patented products, or local companies that manufacture and/or sell similar or generic pharmaceutical products. The first ones are grouped in the Chamber of Pharmaceutical and Related Specialties (CEFA for its Spanish acronym) and the second ones are grouped in the National Laboratories Association (ALN for its Spanish acronym).

### COMPANIES IN THE PRODUCTION AND INNOVATION HUB



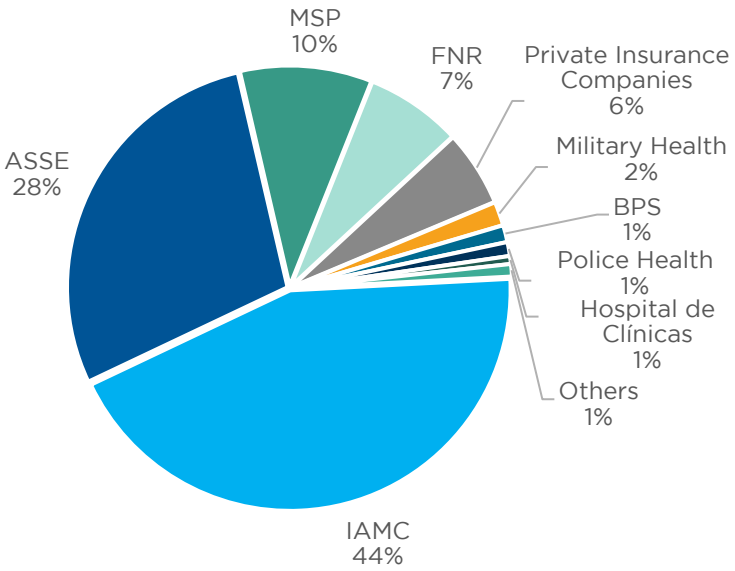

Foreign pharmaceutical companies, national companies, and medical equipment companies.

[13] See previous section.

The sector's main customers are mainly the external market, the government, private health service providers (health insurance companies) and pharmacies.

Regarding to drug expenditure, the role played by the different actors in the Uruguayan health system is important. The National Integrated Health System (SNIS, for its acronym in Spanish) provides coverage to all inhabitants through a mixed public-private system. The main public sector health care agencies are the State Health Services Administration (ASSE, for its acronym in Spanish), the Military Health Service, the Police Health Service and the Hospital de Clínicas (a teaching hospital). The private sector is composed of Collective Medical Care Institutions (IAMC, for its acronym in Spanish) and private insurance companies[14].

Graph No. 6
**Drugs & Pharmaceutical Supplies Expenditure by Health Care Provider**




Note: National Resource Fund (FNR, for its acronym in Spanish)
Source: Health Accounts - MSP.

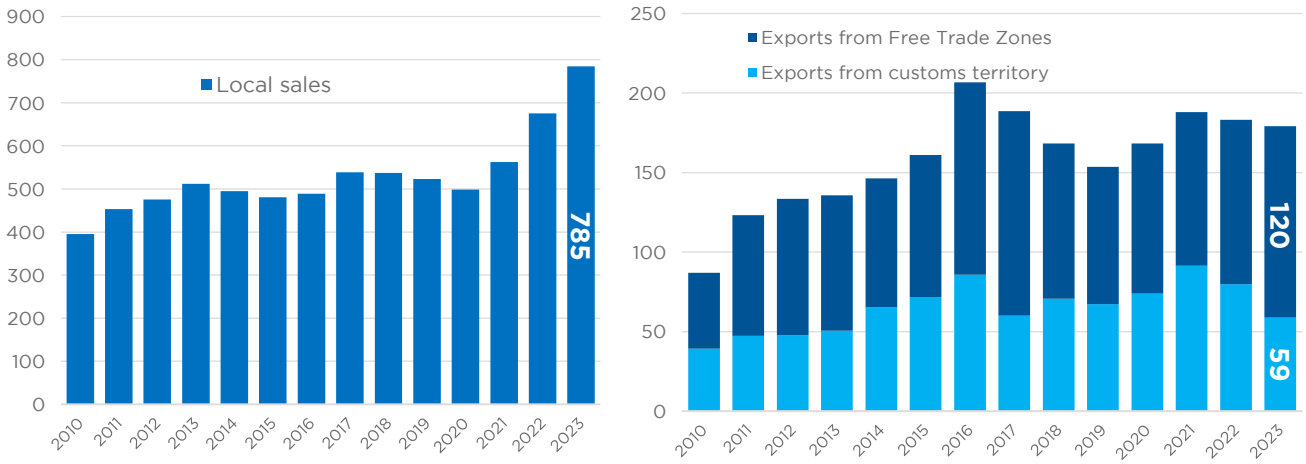
Uruguay's national drug regulatory authority is the Medications Department of the MSP. This agency is responsible for issuing the licenses to companies dedicated to the import, representation, production, processing and trade of medicines, which in turn must be registered with this agency. There are about 77 companies authorized by the MSP for these activities[15].

[14] According to the latest available data from the Ministry of Public Health (MSP, for its acronym in Spanish), in 2021, expenditure on drugs and pharmaceutical supplies accounted for 12% of the total current spending of the health system. This implied an expenditure of USD 645 million, equivalent to 82% of local market sales.
[15] The list of drugs, together with the relevant laboratories, is available online: LINK

Around 39 companies participated in the manufacturing sector in 2023, this figure has remained stable in recent years even though there is a trend of foreign companies acquiring national laboratories that remain as independent business units. Of the total number of manufacturing companies, about half are exporters, and the rest exclusively supply the domestic market.

Sales flows, both to the domestic and foreign markets, have increased significantly in recent years. Local sales have risen considerably in the last two years, reaching USD 785 million in 2023.

Graph No. 7
**Local Sales and Exports – Human Use Medicines**
(USD Millions)




Source: own compilation based on CEFA and DNA (National Customs Directorate)

Exports of pharmaceuticals for human use regained momentum in 2021, after three years of decline, and continued to grow in the following years, particularly in 2023. Exports from free trade zones are very important in this process, accounting for over 65% of the sub-segment's external sales for human use pharmaceuticals. In 2023 24 companies participated in the sector's exports, which amounted to USD 179 million, representing 1.6% of the country's exports.

Since 2010, exports of pharmaceuticals for human use have consistently exceeded USD 100 million, with a special boost from the settlement of several companies in Zonamerica and Parque de las Ciencias (free trade zones). The free trade zone system has allowed for dynamic operations and significant synergies between companies in the sector.

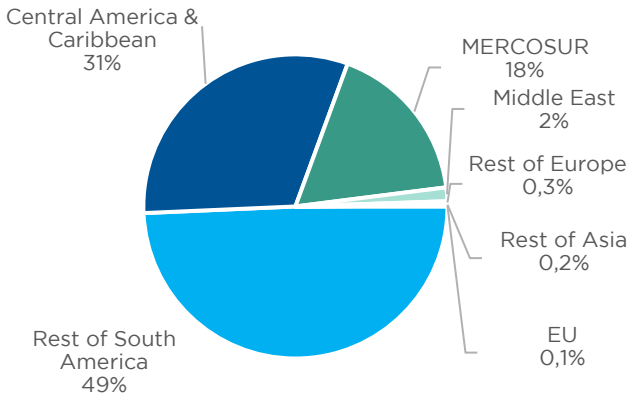
Exports from free trade zones imply that these products enter under the transit regime and may undergo some intermediate processing before being exported to other countries.

In total, exports of pharmaceuticals for human use increased from USD 87 million in 2010 to USD 179 million in 2023. The main exporting company, *Megalabs*, accounted for more than half of external sales in 2023, and for the same period five companies represented 95% of exports. Furthermore, 86% of exports were carried out by companies of foreign origin.

Graph No. 8

**Human Use Pharmaceutical Exports by Company and Destination**
(2023)

| | 2021 | 2022 | 2023 |
|---|---|---|---|
| Total (USD Millions) | 188 | 183 | 191 |
| MEGA LABS S.A. | 48% | 52% | 62% |
| ICLOS URUGUAY S.A. | 15% | 13% | 14% |
| URUFARMA S.A. | 13% | 13% | 10% |
| ABBVIE S.A. | 5% | 5% | 6% |
| FARMACO URUGUAYO S.A. | 6% | 3% | 3% |
| LABORATORIO LIBRA S.A. | 4% | 2% | 2% |
| LABORATORIO GADOR S.A. | 4% | 4% | 2% |
| ROCHE INTERNATIONAL LTD. | 1% | 1% | 1% |
| TERRY | 1% | 1% | 1% |
| LABORATORIOS HAYMANN S.A. | 0.7% | 0.5% | 0.3% |




Source: Uruguay XXI based on the National Customs Directorate.

Nearly 83% of exports in the human use segment correspond to medications, which include a wide range of applications and uses. In turn, 9% of exports correspond to contraceptives, while the remaining 8% are exports of antisera.

In addition, the exported products are mainly intended for the region. In 2023, almost 70% of total sales were directed to South America, with Ecuador, Argentina and Colombia as the main destinations. Central America also has a relevant share, with 29% of the total in 2023. The Dominican Republic, Guatemala and Panama are the main markets in this region.

The main exporting companies today are mostly of foreign origin. The most relevant are described below.

**Megalabs** is a multi-Latin company with 17 production plants and six R&D centers in Latin America. In Uruguay, the Megalabs campus, located in Parque de las Ciencias, consists of a production plant, a development center that carries out R&D

projects for the entire region, a quality control sector and a corporate center where the administrative, financial and technological tasks carried out have an impact on the company's operations throughout Latin America. The Megalabs campus in Uruguay is a space that fosters the exchange of knowledge and technical updating while providing a unique infrastructure capable of hosting highly complex industrial projects.

Megalabs' presence in the country was also strengthened through the acquisition of local laboratories such as: **Celsius, Spefar, Iclos and Haymman**, all of which carry out production activities aimed not only at the domestic market, but also at the regional market[16].

**Eriochem** is a pharmaceutical company engaged in the synthesis of active pharmaceutical ingredients and the production of liquid and lyophilized injectables. The company was founded in Argentina and over time has expanded to produce oncology drugs for Latin America, Asia Pacific, Europe and North America.

In Uruguay, Eriochem performs secondary packaging and analysis of oncology pharmaceuticals for export to several countries. The company has a pre-filled syringe plant as well as its administrative and operations offices for the region in the Parque de las Ciencias free trade zone.

Urufarma Founded in 1946, **Urufarma** is an Argentine-owned company with a modern industrial complex (GMP + GLP certified) for the manufacture of oral contraceptives and other hormonal products. In addition to having a strong impact on the local market, a large part of its production is exported to countries such as Argentina, Chile, Colombia, Paraguay, Peru, Mexico and Venezuela, among others In April 2024, the company opened a modern industrial complex for the production of oncological drugs, with an investment of almost USD 40 million[17].

### 3.1.1. MEDICAL DEVICES

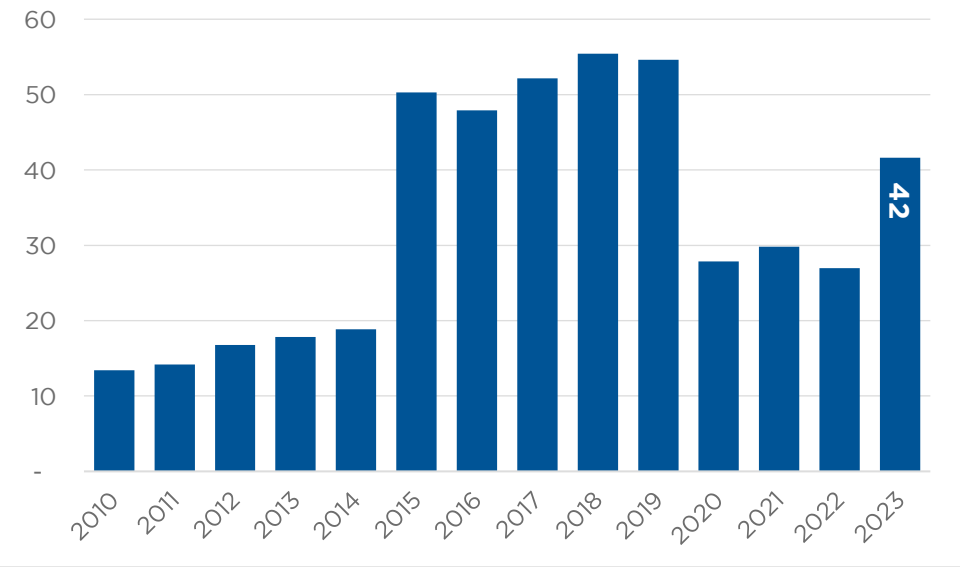
In addition to medicines, there are companies that design, prototype, manufacture and export medical devices from Uruguay.

[16] In February 2023, IDB Invest approved a 10-year loan of up to USD 70 million to Megalabs. The loan will finance investment projects in eight countries in the region (including Uruguay), covering the expansion of existing pharmaceutical production plants, the modernization and expansion of antibiotic plants, investments in efficiency programs, good laboratory practices and good manufacturing practices, as well as the purchase of machinery and equipment: Link

[17] "Urufarma Lab opens modern industrial complex" – El País

The significant increase in the export of these products is largely due to the company Integer, which entered the U.S. market in 2015 after its clients obtained approval to sell medical products in that market and totaled almost USD 50 million in 2019. As of 2020, the decline in the export stream is explained by two reasons: (i) the impact of COVID-19 that caused the cancellation or delay of surgeries, impacting the demand for its products, and (ii) a change in the operations strategy of this company that focuses more on exporting the design of devices and low volume production, transferring the high-volume production to other facilities of the company. These design services are not reflected in goods exports. Despite this context, in the past year exports of medical equipment grew 54%, reaching USD 42 million.

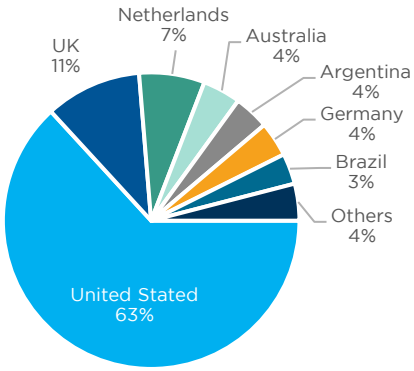
Graph No. 9
**Medical Devices Exports**
(USD Millions)




Source: Uruguay XXI based on the National Customs Directorate.

Graph No. 10
**Exports by company and destination** – 2023

| | 2021 | 2022 | 2023 |
|---|---|---|---|
| Total (USD Million) | 30 | 27 | 42 |
| INTEGER | 81% | 80% | 86% |
| ELECTROPLAST S.A. | 10% | 11% | 8% |
| SIEMENS S.A. | 2% | 2% | 1% |
| BIOGENESIS | 1% | 2% | 1% |
| COVIDIEN URUGUAY S.A. | 0% | 1% | 1% |




Source: Uruguay XXI based on the National Customs Directorate.

As for the destinations of these products, developed countries stand out as the main buyers of the devices produced by Integer. Electroplast and Biogenesis focus mainly on the region.

In total, these exporting companies directly employ around 750 people. Their most important characteristics are highlighted below:

Integer® With over 35 years in the market, Integer Montevideo (formerly CCC Medical Devices) engages in the design and manufacture of implantable medical devices. The company primarily serves the US market and has 250 employees, of which 60 are engineers (electrical, systems, mechanical and chemical) involved in R&D activities.

EPSA® Electroplast S.A. is a worldwide supplier of medical devices for hospital services across a variety of specialties. Its products are used in anesthesiology, urology, surgery, gastroenterology, emergency care, adult and pediatric intensive care. In its production plant in Uruguay, the company employs over 130 people, and is one of the only national companies in its field with ISO and CE (European Community 93/42/EEC) certification.

Its export markets include Germany, Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Egypt, Kazakhstan, Lithuania, Mexico, Nicaragua, Paraguay, Peru, Trinidad and Tobago and Türkiye.

Biogénesis® we care about life It is engaged in the design and production of medical devices for oxygen saturation and temperature measurement,

electrocardiogram, invasive arterial pressure, non-invasive arterial pressure and electroencephalogram. The company currently employs about 20 people and has two lines of business: the manufacture of original and compatible products. In both areas, the company is positioned as a strongly quality-focused enterprise. Biogenesis exports to more than 70 countries through a wide network of distributors worldwide (345).

For the manufacture of medical devices, there is an incipient number of companies devoted to the design of specific software for this segment. Some of the most relevant ones are listed below:

Impulse dynamics is an international company based in New Jersey (USA) that is a leader in the development of innovative therapies for heart failure. The company's cardiac contractility modulation technology has proven to be effective in improving heart failure symptoms and patients' quality of life. Impulse Dynamics has a team of 15 people in Uruguay dedicated to the design, development and prototyping of implantable devices.

Focused on generating value for industrial and technological companies, providing design and development solutions for software, hardware and automation. Focus supports its clients in the integral development of electronic systems: from the definition of requirements, through the design of hardware architecture, PCB design and prototype manufacturing. The skills of our software development team are complemented by in-depth knowledge of hardware design and communication systems, which allows us to obtain results that balance production costs with performance and energy efficiency. With a team of over 30 engineers and project managers with experience in Neuromodulation, we have worked on several Implantable Pulse Generators for different therapies, and on novel portable neurostimulators for bioelectronic medicine.

Since 2014 Hattrick has been designing and building software for leading medical device and digital therapy companies, bringing nearly a decade of innovation and experience to the forefront of healthcare technology. The companies' team adopts an agile approach to navigating the complex landscapes of FDA, HIPAA and other regulatory requirements in healthcare, ensuring that projects not only meet the highest internationally mandated standards, but do so with unmatched efficiency and adaptability. It specializes in seamlessly connecting software with a wide range of medical and wearable devices through Bluetooth, WiFi, RFID and NFC technologies, guaranteeing innovative and securely integrated solutions.

## 3.2. VETERINARY USE

The veterinary drug manufacturing segment in Uruguay focuses on the production and sale of mainly treatment products, with a broad spectrum of use both among household pets and livestock that are part of some of the country's main productive activities.

The health authority for veterinary drugs is the Ministry of Livestock, Agriculture and Fisheries (MGAP, for its acronym in Spanish) through its Veterinary Laboratories Division (DILAVE in Spanish). Companies engaged in the processing, portioning, importing and distribution of veterinary products must apply for authorization from this agency. There are currently 169 companies in these areas.

Production in Uruguay is carried out by some 29 companies[18] that combine the manufacture of a wide range of products such as medications, vaccines and serums and proteins for animal use. No record of companies operating in the veterinary segment under the free trade zone regime exists operating in the veterinary segment under the free trade zone regime.

VETERINARY COMPANIES IN URUGUAY

| | COMMERCE & SERVICES<br>RDC – Trading/Procurement/<br>Sales/Service Centers | MANUFACTURING & INNOVATION<br>Medication Production<br>R+D Centers/Projects |
|---|---|---|
| EXPORT | TECNOVAX | VIRBAC – MSD – BOHREINGER/MERIAL – KONIG – LAB. ROSEMBUCH – TECNOBLEN – LAB. URUGUAY<br>MICROSULES – LA BUENA ESTRELLA – SYNTEX - LAB. CALIER – CIA. CIBELES – RIPOLL VET – LAB. BIOMEGA – LONSA – MVDMART – DESPRO – BIOKHEMIA – UNIMEDICAL - PROBIOMONT |
| INTERNAL MARKET | BIOGENESIS BAGO<br>ZOETIS<br>LABYES | TAFIREL<br>LAB.PASTEUR – BIOLAB – ENTOX – COLBIN – ELUFAR – LAB. AC – ADLER – BIOSUR – LABORATORIO SUR - TOFANA |

Foreign pharmaceutical companies, national companies.

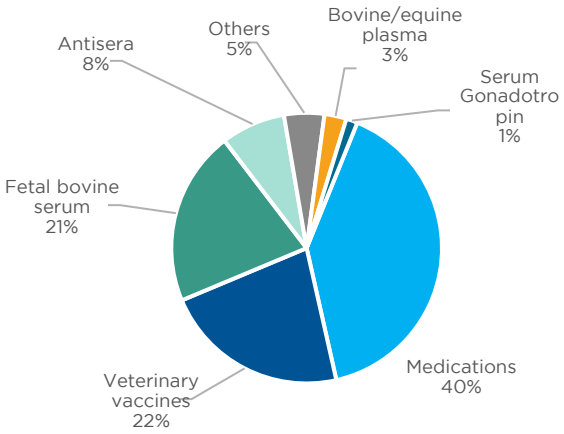
The manufacturing segment of veterinary products represents 17% of the total production of pharmaceutical products. Exports in 2023 were carried out by 26 companies, which exported a total of USD 90 million. The veterinary segment also shows a high concentration of exporting

[18] Companies that are authorized to manufacture veterinary products, but this is not their main line of business are excluded from this group. For instance, pharmaceutical laboratories for human use, food producers or cleaning products.

companies, although less than in the human segment. In this case, five companies accounted for 76% of exports last year.

Graph No. 11
**Veterinar Exports by Company and Product** - 2023

| | 2021 | 2022 | 2023 |
|---|---|---|---|
| Total (USD Million) | 92 | 102 | 90 |
| LABORATORIOS MICROSULES | 32% | 32% | 36% |
| VIRBAC URUGUAY S.A. | 16% | 16% | 15% |
| MVDMART S.A. | 5% | 17% | 14% |
| PRONDIL S A | 11% | 4% | 7% |
| TECNOBLEN S A | 2% | 4% | 4% |
| DESPRO S A | 3% | 6% | 4% |
| LAGE Y CIA S A | 3% | 3% | 4% |
| READYPOINT S.A. | 5% | 3% | 3% |
| LA RESERVA TRADING CO S A | 1% | 1% | 3% |
| LONSA SCIENCE SRL | 0% | 2% | 1% |



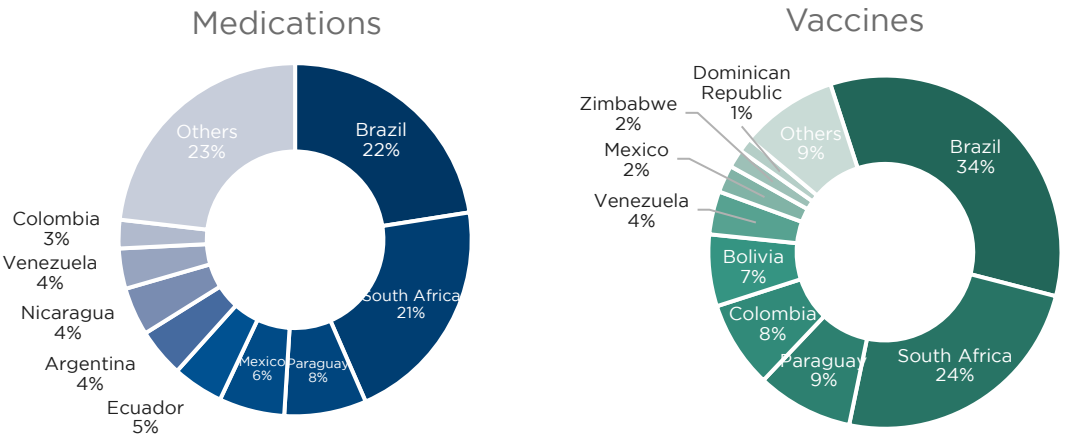

Source: Uruguay XXI based on the National Customs Directorate.

In terms of products, the segment presents a wide variety, ranging from medications to vaccines, as well as fetal serums, plasma and PMSG, hormones like serum gonadotropin.

In 2023, veterinary pharmaceuticals went out to 60 markets. Approximately half of the total went to South America, with Brazil, Paraguay and Argentina leading as destination markets. Vaccines show a higher concentration in destinations compared to medications, while the remaining exports were concentrated in fewer countries. Fetal serum was mainly destined for China.

Among the medications and vaccines produced and exported in Uruguay, stand out those with anti-parasite, anti-rabies and immunobiological functions tick control products.

Graph No. 12
**Veterinary Pharmaceuticals Exports Destinations by product** – 2023




Source: Uruguay XXI based on the National Customs Directorate.

The main companies are both national and foreign and produce a variety of veterinary products. The following is a brief description of the most relevant companies.

**MSD – Prondil S.A.** is a biotechnology laboratory specialized in the development and production of vaccines for veterinary use. With a clear export profile (its products are marketed in over 20 countries in Latin America, Africa, Europe and the Middle East), Prondil has adopted the most relevant and strict international standards in the field of biologics (CFR of the United States, Ph. Eur., OIE, WHO and GMP of Mercosur). Its production plant located in Montevideo has state-of-the-art equipment and facilities that ensure biosafety and environmental care.

**Virbac** Uruguay (until 2010, Laboratory Santa Elena S.A.) manufactures, distributes and exports animal health products. In addition to a production plant, Virbac Uruguay has a research and development center for biological products (vaccines).

**Laboratorios Microsules** has been operating in the local and international market for over thirty years, manufacturing, synthesizing, marketing and distributing veterinary drugs. The company has six production plants in Canelones, which allow the export of its products to more than 40 countries in Africa, America, Asia, Europe and the Middle East, and a state-of-the-art experimental field with animal welfare certification.

## 3.3. R&D ECOSYSTEM + New developments

Supporting activities associated to the production in the pharmaceutical sector in general, there is a dynamic ecosystem promoting innovation that collaborates in the addition of new product lines or in the implementation of innovation projects between companies and research groups.

This ecosystem covers sectors ranging from food, veterinary products, human use products and cannabis by-products, among others, and represents a strong base for the innovative ecosystem supported by specific institutions that favor this type of activities.

Figure No. 4
**Innovative ecosystem**


According to the National System of Researchers (SNI in Spanish) registry there are 1,515 researchers in the Life Sciences segment. These researchers are associated with more than

167 public and private research groups, which has fostered the emergence of startups in recent years. The research groups comprised of highly qualified scientists, most with training abroad, are capable of developing processes and products with quality control systems adjusted to international standards.

Table No. 3
**Researchers by area (2024)**

| Area | Number of researchers |
|---|---|
| **Agricultural Sciences** | **290** |
| **Medical and Health Sciences** | **279** |
| Health Biotechnology | 34 |
| Health Sciences | 69 |
| Basic Medicine | 125 |
| Clinical Medicine | 36 |
| Other Medical Sciences | 15 |
| **Biological Sciences** | **334** |
| Other Natural and Exact Sciences | 391 |
| **Social Science** | **443** |
| **Humanities** | **208** |
| **Engineering and Technology** | **221** |
| **Total** | **2,166** |
| **Total Pharma + Life Science** | **1,515** |

Source: Uruguay XXI based on the National System of Researchers (SNI).

The pharmaceutical sector in Uruguay has a broad network of research institutions and incubators with state-of-the-art technological platforms and competent human resources. In addition to collaborating in developing projects with industry, these ecosystem players also have the capacity to provide specific training for personnel in the sector. This network of academic research groups and service provider startups create a dynamic innovation ecosystem for developing projects and R&D centers focused on exports and attracting investments.

Some of these organizations include: Pasteur Institute, Uruguay's Innovation Hub, Uruguay's Technological Laboratory (LATU in Spanish), Polo Tecnológico de Pando Institute, Clemente Estable Institute, Biomedical Research Center, Uruguayan Center for Molecular Imaging (CUDIM), Institute of Hygiene and the Biotechnology Center for Research and Innovation (CBI+I).

The **Pasteur Institute** is a non-profit foundation, created in 2004 by the Institut Pasteur in Paris and the University of the Republic of Uruguay. It ensures that highly qualified human resources and modern equipment is available to the entire scientific community and life science companies. The institute works on integrated projects in biotechnology related to the human and animal health sectors, among others. Within this framework, it provides biotechnology services for foreign and national companies, including Biopolis (Spain), Danone (France), Gema Biotech (Argentina), Santa Elena (Uruguay), and Microsules (Uruguay).

These institutes mentioned above, besides contributing to industry projects, provide specific training and the special equipment and infrastructure in order to do so, which otherwise would have to be provided by the company, which would hinder its daily operations. Most of these institutions, as well as free zones with specific platforms, technologies and services for Life Sciences companies (e.g. Zonamerica and Parque de las Ciencias) are mainly found in the metropolitan area of Montevideo, creating an innovation *hub*.

**Laboratorio Tecnológico del Uruguay (Uruguay's Technological Laboratory).** Organization created in 1965. Its mission is to promote the sustainable development of the country and its international insertion, through innovation and the transfer of value solutions in analytical, metrological, technological, management and conformity assessment services in accordance with applicable regulations.

**Uruguay Innovation Hub** is a national program that seeks to propel Uruguay to the forefront of the knowledge economy. Its commitment is to consolidate the local innovation ecosystem. This is achieved through the implementation of new instruments and the development of initiatives that foster collaboration and synergies among the various actors in the ecosystem.

It seeks to promote and accelerate ventures in high-growth sectors such as advanced technologies, green technologies and biotechnology, as well as to position the country as a benchmark in the search for and resolution of global problems through innovation.[19]

**Pando Scientific and Technological Park (PCTP)** is an innovation and development center located in the department of Canelones, Uruguay. It

[19] Visit: https://uih.uy/ y "Uruguay's Innovation Hub strategy to lever the biotechnology industry" – El Observador

stands as a unique environment in the country, promoting collaboration among the academic sector, businesses, and government.

The Park focuses its activities primarily in the fields of biotechnology, nanotechnology, chemistry, and pharmaceutical technologies. It offers a wide range of facilities including laboratories, offices, and shared spaces, as well as services related to surveillance and competitive intelligence, and support in the formulation and management of R&D projects. Additionally, it provides assistance in prototype development, technology transfer, and intellectual property strategies, ensuring that companies can compete effectively in a global market.

Currently, the Scientific Park hosts around 10 companies and collaborates on R&D projects with over 20 other companies from various sectors, with a strong emphasis on the pharmaceutical and biotechnological industries. Among the resident companies are research laboratories, innovative startups, and industrial production companies working on new business lines, applied biotechnology, and specialized chemical products.

The Park not only provides the necessary infrastructure for research and development, but also fosters ecosystem dynamics that promote knowledge exchange and collaboration. Companies at the Park benefit from a collaborative environment and access to a network of contacts that enhances their innovation capabilities.

PCTP plays a crucial role in driving the pharmaceutical and biotechnological sectors in Uruguay, providing the resources necessary for companies to generate economic value through knowledge and innovation.

The institute "**Polo Tecnológico de Pando**" of the Chemistry Department (in the University of the Republic) serves as a center for research, development and innovation in the following fields: Chemistry, Biotechnology, Material Science and Environment. It specializes in the most productive sectors of industry and services in Uruguay.

The **Clemente Estable Institute for Biological Research** is a non-profit public institution under the Ministry of Education and Culture (MEC), which brings together several groups dedicated to research in different fields of biological sciences with the following objectives:

- To generate and develop scientific research that allows the acquisition of new knowledge in the field of life sciences and related areas.
- As a reference in science, technology and innovation at both the national and regional level, to train scientific and technical researchers.
- Contribute to the scientific and cultural development of the country, and to the planning of its scientific policy.

Based in the Biochemistry Department of the School of Medicine, the **Center for Biomedical Research** (CEINBIO in Spanish) functions as an interdisciplinary and multi-institutional academic space where researchers and themes in knowledge areas related to chemistry, biochemistry, cell biology, physiopathology and pharmacology of oxidation-reduction processes can converge. In addition, it interacts with multiple departments and research units of the Schools of Medicine, Sciences, Chemistry, the Institute of Biological Research and the Pasteur Institute of Montevideo.

An important focus of these activities has been participating in the training of high-quality human resources. Many students have carried out doctoral studies at PROINBIO, PEDECIBA-Biology, PEDECIBA-Chemistry, and foreign interns (both students and professors) have investigated chemical, biological, physio pathological and pharmacological aspects of free radicals and antioxidants in the different laboratories of the center.

The center also established contacts with the pharmaceutical and food industry and provided advice in the Chemistry and Biology of Free Radicals and Antioxidants. The industry has also shown a growing interest in the development of antioxidant compounds that are being developed and evaluated in these laboratories, as well as in the functional analysis and antioxidant characteristics of their own natural products and foods.

The **Uruguayan Center for Molecular Imaging** (CUDIM in Spanish) is committed to the development of research, training and applications in health sciences. The following activities are especially fostered:

- Diagnosis: clinical examinations of patients with public and private health coverage mainly in the areas of oncology and neurology.
- Training: in order to promote teacher, professional and technical improvement.
- Clinical and biomedical research: evolution of the impact of PET cyclotron for various pathologies and in the evaluation of new drugs in research and development.

Besides research and industry support institutions, there are several examples of incubators operating nationally, which promote early-stage projects. In general, the profile of these centers is defined by the objectives, mentors, and companies supported. Those with a profile more closely linked to the pharmaceutical sector include:

**Hygiene Institute**. It is a specialized organism attached to the School of Medicine of the University of the Republic (UdelaR). Its objective is health promotion and disease prevention, as well as teaching at all levels. It also carries out research work focused on health problems and gathers knowledge on specific topics. Traditionally, it has been active in the field of communicable diseases. This institute was the first of its kind to be created in Latin America and one of the first in the world.

**National Institute for Agricultural Research (INIA in Spanish).** INIA's Biotechnology Unit has labs in each of the five Experimental Stations where various plant tissue culture techniques and biochemical-molecular approaches are developed in collaboration with the National Programs. Each experimental station has state-of-the-art equipped labs which incorporate biotechnological tools in very different areas such as plant, animal and microbial research. The techniques applied in different areas range from cell cultures, molecular markers and biochemical-molecular studies associated with characteristics of agricultural interest.

**Khem.** This incubator focuses on the development of technology-based companies. It is located on the premises of the Polo Tecnológico de Pando and has 350km$^2$ of laboratories for ventures under incubation. It also has the KhemBIO platform, through which biotechnology ventures can be sponsored.

The **Biotechnology Center for Research and Innovation** (CBI+I), together with the Technological University of Uruguay (UTEC in Spanish) and the Center for Innovation and Entrepreneurship (CIE in Spanish) of ORT University Uruguay, are in charge of the CIE BIO incubator. This incubator promotes and executes actions to develop, strengthen and coordinate the biotechnology-based ecosystem, seeking to turn entrepreneurial initiatives into innovative ventures that add value to society.

This dynamic ecosystem plays a fundamental role in innovation, fostering collaboration between companies and research entities. This context paved the way for the creation of over 20 biotechnology start-ups focused mainly on human health.

Figure No. 5
**Start Ups**

# 4. HUMAN CAPITAL - TALENT

## 4.1. EMPLOYMENT

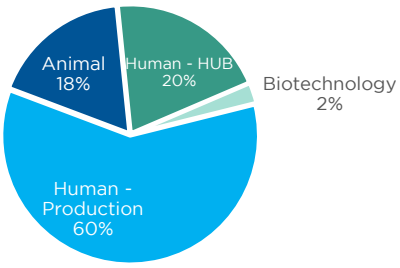
It is estimated that the workforce employed by the different segments of the sector is around 7,500 people[20], mostly highly qualified workers. This number does not include the indirect employment that the sector generates, which ranges from product sales and marketing to health services.

The human health segment employs the largest number of people, with more than 6,100 individuals, most of whom work in the export sector (about 2,700 in pharmaceutical companies and some 750 in medical equipment). Companies focused on trade and service *hub* activities are also important employment generators. These companies provide around 1,540 direct jobs, including specialized suppliers in the logistics chain.

Companies that handle the local distribution of foreign pharmaceuticals - often local representatives of international laboratories - employ an estimated 310 people. In addition, companies that focus their production exclusively on the domestic market employ approximately 800 people.

The animal health segment generates about 1,350 direct jobs, while the biotechnology sector employs 200 people, representing 3% of the sector's employment.

Graph No. 13
**Employment in the Pharmaceutical Sector -** By segment (2023)

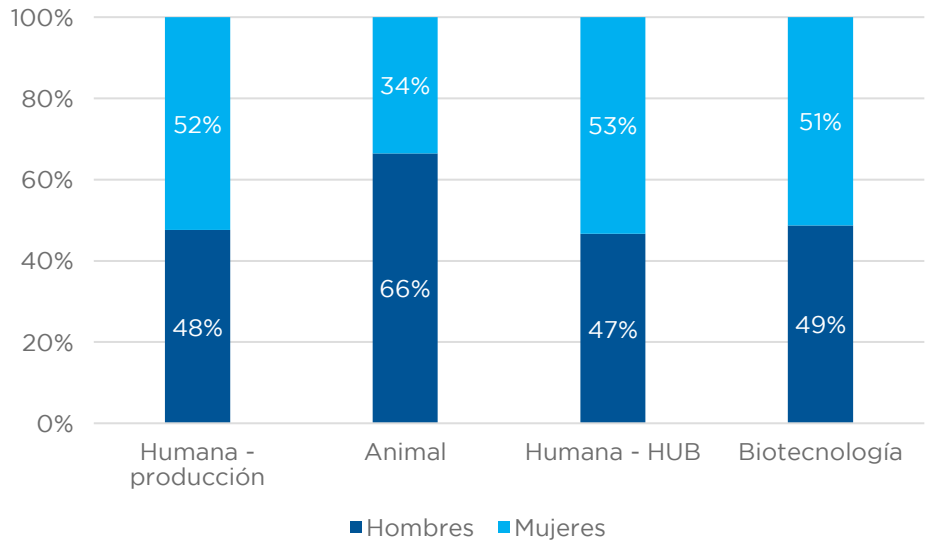



Source: Uruguay XXI based on data from the MTSS.

[20] Data as of December 2023. Based on data from the Ministry of Labor and Social Security (MTSS) and information provided by the companies.

The gender distribution shows an overall parity in the pharmaceutical sector, with 51% of men and 49% of women working in the industry. The distribution within each segment can be seen in Graph No. 14, which shows a higher participation of women in the most labor-intensive segment, human pharmaceuticals manufacturing.

Graph No. 14
**Employment in the Pharmaceutical Sector.** By segment and gender (2023)




Source: Uruguay XXI based on data from the MTSS.

## 4.2. EDUCATIONAL OFFER

The development of the sector in Uruguay has led to a growing educational market aimed at providing quality training to meet the high industry demands.

For the services sector associated with the pharmaceutical and health industry, university courses directly related to this segment, such as research, manufacturing or health services, are considered.

It should be noted that other university courses, such as those associated with business services and ICT, are also relevant to this segment. These nurture shared services centers based on foreign trade tasks, supply chains, administration and accounting, human resources management or market analysis associated with the pharmaceutical sector.

Table No. 4
**University students Population-** 2022

| Pharma and Health related education | |
|---|---|
| **Undergraduate or equivalent** | |
| Colleges/Educational institutions | 20 |
| Enrolled students | 66,033 |
| Total annual enrollment | 12,532 |
| Total annual graduations | 2,275 |
| **Postgraduate (Masters, PhDs, others)** | |
| Total annual enrollment | 1,311 |
| Total annual graduations | 195 |

Source: compiled by Uruguay ZZI based on data from the Ministry of Education and Culture - "Education Statistical Yearbook 2022"

More than 66,000 students are enrolled in courses directly related to pharmaceutical and health services. There is a clear preponderance of medicine over the rest of the university courses associated with the sector. In addition to the volume of annual graduates, there is also a large group of high-level university students in the labor market with many of the skills required for this business sector.

Table No. 5
**Student Enrollment per subject-** 2022

| | Enrolled |
|---|---|
| Biological Sciences | 2,459 |
| Medicine | 17,392 |
| Chemistry/ Biochemistry | 7,029 |
| Veterinary medicine | 5,254 |
| Other - human health | 33,899 |
| **Total associated with the sector** | **66,033** |

Source: compiled by Uruguay XXI with data from the Ministry of Education and Culture - "Education Statistics Yearbook 2022"

The technological development of the sector means that there is a large demand for highly qualified labor. In this sense, a wide range of related careers and educational institutions make up the sector's education ecosystem:

**University of the Republic (UdelaR).** Several colleges have research groups linked to the sector, with orientations in basic and applied research. Among these are the schools of Chemistry, Science, Veterinary Science, Engineering, Agronomy and Medicine. These research groups carry out teaching, research, dissemination and liaison activities with the productive sector to solve specific problems in industrial production.

The **Technological University of Uruguay (UTEC in Spanish)** has a tertiary public university education program with a technological profile, aimed at research and innovation. As for the connection to the industry, through several degrees in different departments of the country it has developed workshops, undergraduate and graduate dissertations according to the needs of companies, cooperatives, and other interested parties.

In the private sector, **ORT University** is the only one that offers Biotechnology degrees (Bachelor's and Engineering) in its engineering school. The university has an academic infrastructure that includes practice and experimentation laboratories in biotechnology.

The **Catholic University of Uruguay** provides an academic offer focused on health areas (medicine, dentistry, nursing, psychology, among others) in its School of Health Sciences.

The **University of the Enterprise** (Universidad de la Empresa) offers degrees such as physiotherapy, imaging and nursing in its School of Health Sciences in Montevideo and Colonia.

The **University of Montevideo** offers several postgraduate courses in medical and pharmacological specialties at its Center of Biomedical Sciences. It also offers several advanced courses related to the health area.

**CLAEH** is the first private university offering a degree in Medicine in Maldonado.

# ANNEX

## 4.3. REGULATORY FRAMEWORK

To see the annex with the regulatory framework of the sector in Uruguay, click on the following link: Regulatory Framework

# 5. URUGUAY AT A GLANCE

## URUGUAY IN NUMBERS

| Official name | Oriental Republic of Uruguay |
|---|---|
| **Geographic location** | South America, borders with Argentina and Brazil |
| **Capital city** | Montevideo |
| **Surface area** | 176,215 km$^2$. 95% of the territory is productive land, suitable for agriculture and livestock farming |
| **Population (2023)** | 3.44 million |
| **GDP per capital (2022)** | USD 20,043 |
| **Currency** | Uruguayan Peso ($) |
| **Literacy rate** | 0.98 |
| **Life expectancy at birth** | 77.9 years old |
| **Government type** | Democratic republic with presidential system |
| **Political division** | 19 departments |
| **Time Zone** | GMT - 03:00 |
| **Official Language** | Spanish |

## MAIN ECONOMIC INDICATORS

| Indicators | 2018 | 2019 | 2020 | 2021 | 2022 | 2023* |
|---|---|---|---|---|---|---|
| **GDP (Annual % Change)** | 0.16% | 0.93% | -7.38% | 5.56% | 4.71% | 0.37% |
| **GDP (USD Billions)** | 65.259 | 62.166 | 53.615 | 60.728 | 70.236 | 77.131 |
| **Population (Millions of individuals)** | 3.43 | 3.44 | 3.44 | 3.44 | 3.44 | 3.44 |
| **GDP per Capital (USD)** | 19,010 | 18,095 | 15,593 | 17,648 | 20,395 | 22,422 |
| **Unemployment rate - Annual Average (% EAP)** | 8.3% | 8.9% | 10.4% | 9.3% | 7.9% | 8.3% |
| **Exchange rate (Pesos per USD, Annual Average)** | 30.8 | 35.3 | 42.1 | 43.6 | 41.1 | 38.9 |
| **Exchange rate (Annual Average Variation)** | 7.3% | 14.7% | 19.2% | 3.6% | -5.6% | -5.5% |
| **Consumer Prices (Cumulative Annual Variation %)** | 8.0% | 8.8% | 9.4% | 8.0% | 8.3% | 5.1% |
| **Goods and services exports (USD Billion) **** | 17.283 | 17.254 | 13.909 | 19.639 | 22.611 | 24.851 |
| **Goods and services imports (USD Billions) **** | 13.973 | 13.504 | 11.431 | 15.134 | 18.993 | 18.865 |
| **Trade Surplus / Deficit (USD Billions)** | 3.309 | 3.75 | 2.477 | 4.505 | 3.618 | 5.986 |
| **Trade Surplus / Deficit (% of GDP)** | 5.1% | 6.0% | 4.6% | 7.4% | 5.2% | 7.8% |
| **Overall Fiscal Result (% of GDP)** | -3.9% | -4.4% | -5.8% | -4.1% | -3.4% | -3.6% |
| **Gross Capital Formation (% of GDP)** | 14.9% | 14.1% | 16.4% | 18.3% | 18.9% | 17.3% |
| **Public Sector Gross Debt (% of GDP)** | 58.9% | 59.9% | 74.5% | 69.8% | 67.9% | - |
| **Foreign Direct Investment (USD Millions) ***** | -11 | 2,018 | 756 | 1,937 | 3,456 | 3,429 |
| **Foreign Direct Investment (% of GDP)** | 0.0% | 3.2% | 1.4% | 3.2% | 4.9% | 4.4% |

*Data projected in red.
Sources: BCU, INE, MEF and estimated data (*). The fiscal result data include the effect of Act N°19,590 (fifty-year-olds). In 2017 the BCU adopted the methodology of the 6th manual on balance of payments. The methodology includes purchase and sale of goods and re-exports and data is available since 2012. Data are net flows so they may take on negative values (**).
includes purchase and sale of goods and re-exports and data is available since 2012. Data are net flows so they may take on negative values (**).

Uruguay *XXI*

PROMOCIÓN DE INVERSIONES,
EXPORTACIONES E IMAGEN PAÍS


www.uruguayxxi.gub.uy

info@uruguayxxi.gub.uy

UruguayXXI