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## Brazil infrastructure market study 2022

November 2022



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# 港湾セクター 市場調査 エグゼクティブサマリ

## ハイライト情報

取扱物量	選定7港: 525 millions トン (2020年) 港湾セクター合計: 1.2 billion トン (2021年、前年比 4.8%成長)
計画投資金額	選定7港: 約R\$34 billion; 港湾のPPIフレームワークによる投資: 2023年までの間にR\$ 4.6 billion
進行中のプロジェクト数	選定7港: : 6つのターミナルリース、1つのコンセッション (PPI frameworkより) 港湾セクター合計: 10のターミナルリース、3つのコンセッション (PPI frameworkより)
市場競争力	1400社超。大多数はパブリックカンパニーが占めている。
法律規制の背景	港湾関連の法律は、民間資本を誘致して港湾管理をより柔軟にし、官僚主義を減らすことによって 構造物の近代化や拡張を可能にすると共に、競争原理を通じて、取扱物量を増加させることを目的としている。
成長のポテンシャル	高い。投資優遇措置によって市場が動いていくことが想定されており、 これによりセクター内の格差を縮小することが可能になる。

\* 選定7港 : Itaquí, Ponta da Madeira, Tubarão, Santos, Paranaguá, São Francisco do Sul, Rio Grande。穀物、鉄鋼業及び日本企業の活動地域との関連性から選定。

# 港セクター 市場調査 エグゼクティブサマリ

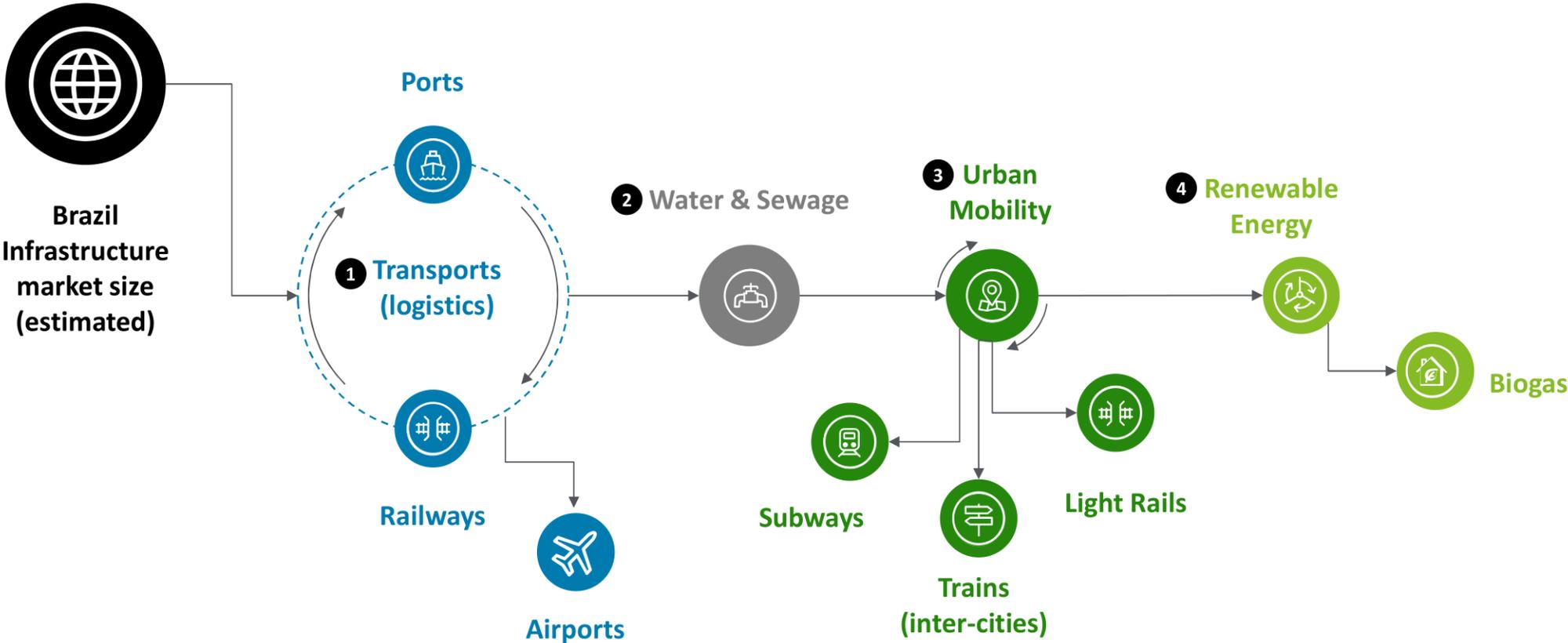
## ブラジルに投資すべき理由



広大な国土	南米10か国と隣接	世界5番目の人口	世界7番目の市場規模	海外投資の集中	安定した港湾システムのキャパシティー	成長を続ける貿易収支
851万5,767平方kmの国土。 航行可能な海岸線は8.5千kmである。	南米10か国との国境線を共有している。	世界で5番目の人口を持ち、2億1400万人の住民が27の州と5,580の自治体に生活している。	ブラジルは世界第7位の消費市場であり、世界第3位の農業生産国である。	2015年、ブラジルは海外投資の受入額が世界4位であった。	ブラジルの港湾セクターは合計で2021年に1.2 billion トンの貨物を取扱した。(前年比4.8%増)	2021年、COVID-19によるパンデミックの影響が顕著であった中で、貿易収支は史上最大の黒字を記録した。 (US\$ 61.2 billion)

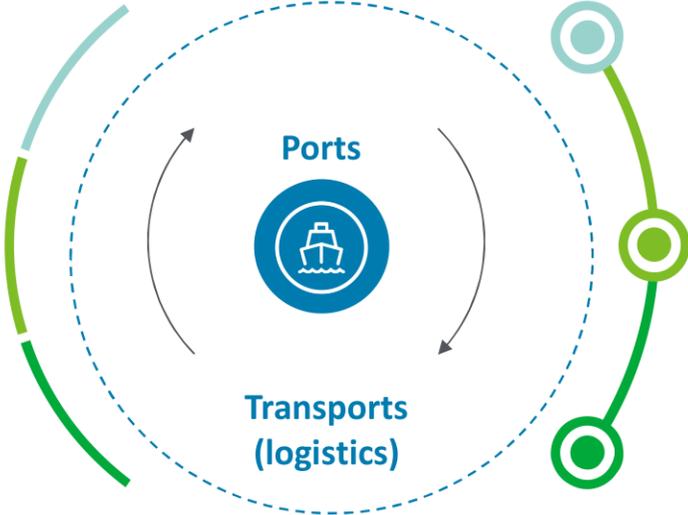
# Brazil infrastructure market study

## General Overview



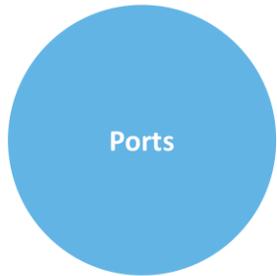
# Brazil infrastructure market study

Transport - Ports



# Brazil infrastructure market study

Transports – Ports – Agenda – 1/2



Public Value Chain and Regulations



General Sector Overview



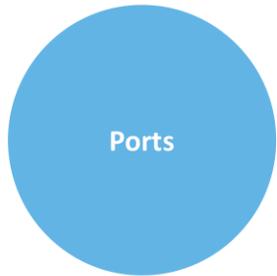
Main Players



Federal Government Strategy

# Brazil infrastructure market study

Transports – Ports – Agenda – 2/2



Selected Ports and TUPs - Profile



Main Projects Portfolio



Financing Sources



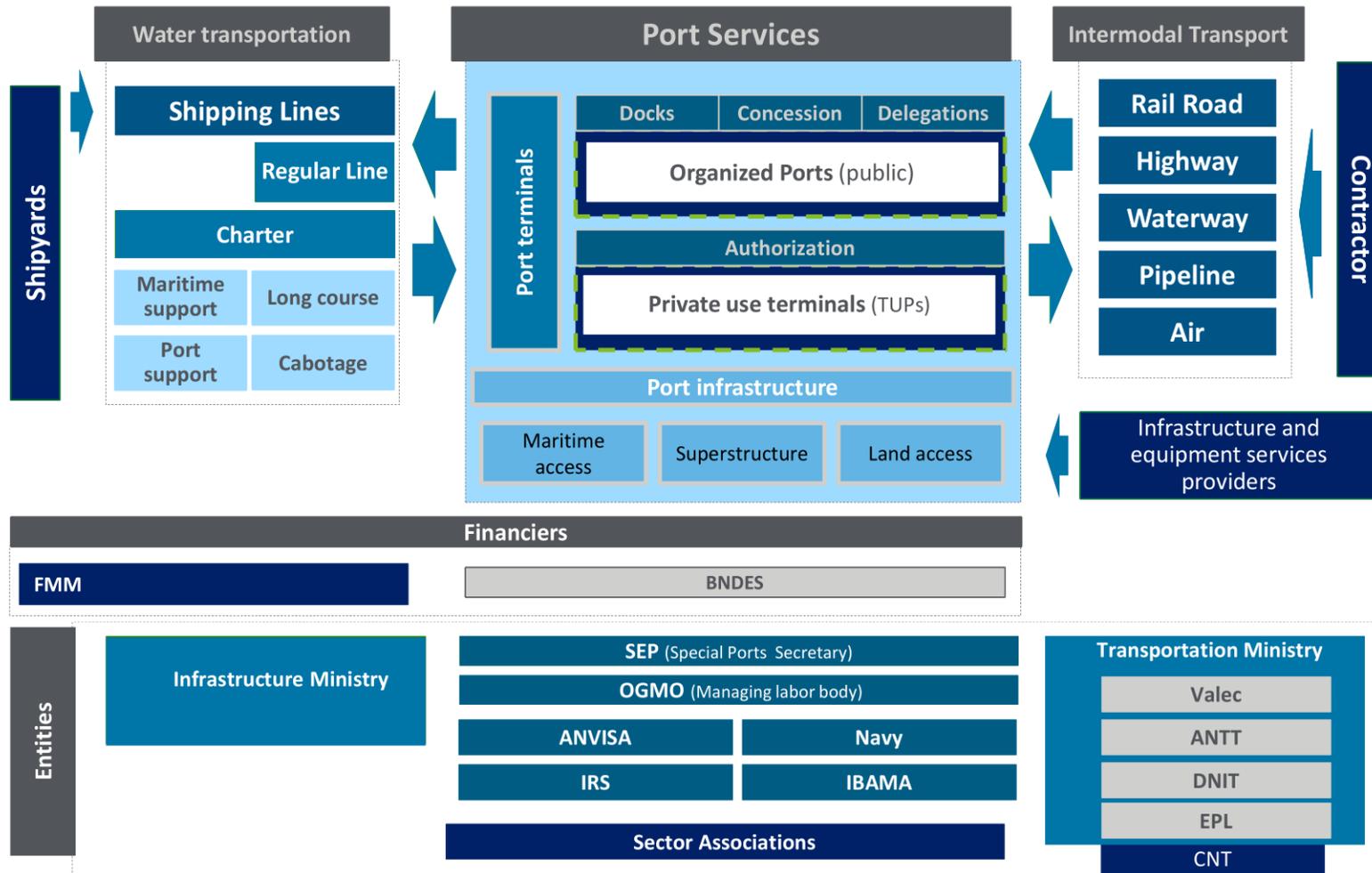
Final Considerations

# Public Value Chain and Regulations



# Public Value Chain and Regulations

Sector Organization - Public Value Chain and Regulations entities involved.





# Public Value Chain and Regulations

## Sector Organization – Water transport entities.

**Port terminals:** Infrastructure aimed for the movement of cargo in water transport;

**Public Ports:** It's a set of terminals, located close to each other, that share navigation, movement and storage infrastructure of goods, whose traffic and port operations are under the jurisdiction of a port authority.

**Docks:** Mixed economy entities that operate in the administration of a portion of the Brazilian ports. The docks have the federal government as their major partner;

**Concessions:** Ports that operate under the concession regime from the federal government to the states and the private sector;

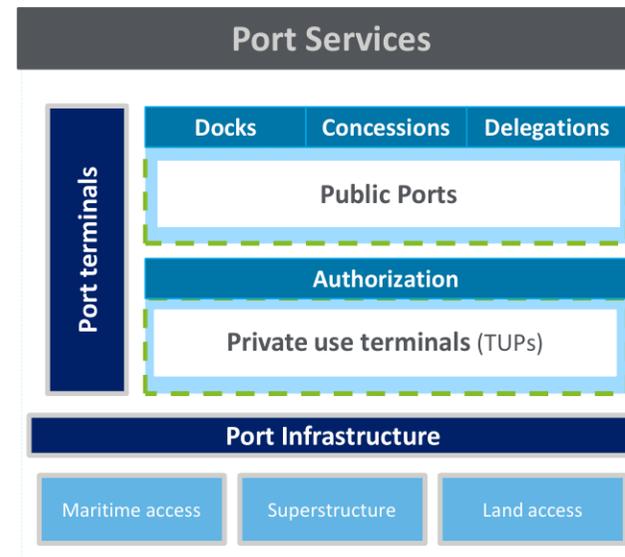
**Delegations:** Ports that operate under the regime of delegation of responsibilities from the federal government to states and municipalities;

**Private use terminals (TUPs):** Port terminals located outside the public port area, whose port activities take place under the private regime. Private use terminals are created under a 25-year operating authorization regime, renewable for successive periods;

**Land access infrastructure:** These are the access roads that allow the transportation of goods from the land limits of the port area to the terminal yards, storage areas and ships;

**Port Superstructure:** These are the equipment used for handling and storing goods in the ports, such as: cranes, conveyors, straddle carrier and warehouses;

**Waterway access infrastructure:** These are the changes made to the maritime environment so that the reception and accommodation of vessels can be carried out, such as: Access Chanel, Evolution Basin, Berth, maritime signaling, etc.





# Public Value Chain and Regulations

## Sector Organization – Water transport entities.

**FMM:** The Merchant Marine Fund has an accounting nature and intends to provide resources for the development of the Merchant Navy and for the Brazilian shipbuilding and repair industry.

**BNDES e Federal Banks:** Nordeste Bank, Banco do Brasil Bank, Amazônia Bank and Caixa Econômica Federal.

**ANTAQ:** Agency responsible for regulating, supervising and inspecting the activities of waterway transport services and the exploration of ports and waterways infrastructure.

**SEP:** Secretary directly linked to the republic president, responsible for formulating policies and guidelines for the promotion of the sector, execution of programs and projects that aim to support the development of port infrastructure, with budgets investments and the Growth Acceleration Program.

**OGMO:** Non-profit entities that act in the regulation of independent workers in the port sector. They have an administrative, supervisor, and professional nature.

**ANVISA/ IRS / IBAMA/ Navy:** Entities responsible for inspecting and authorizing port activities.

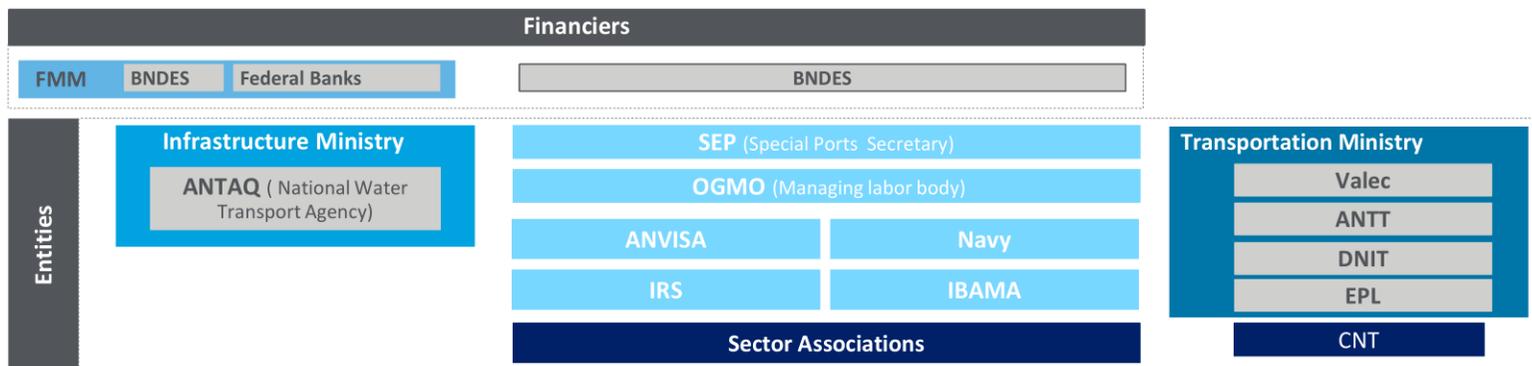
**VALEC:** Public company responsible for the construction and operation of railway infrastructure.

**ANTT:** National land transport agency, responsible for regulating and organizing land transportation.

**DNIT:** National Department of Transport Infrastructure, responsible for transport infrastructure in Brazil.

**EPL:** Logistic planning company, that aims to elaborate integrated logistic planning.

**CNT:** National transport confederation, responsible for acting in the defense of the interests of the transport sector.

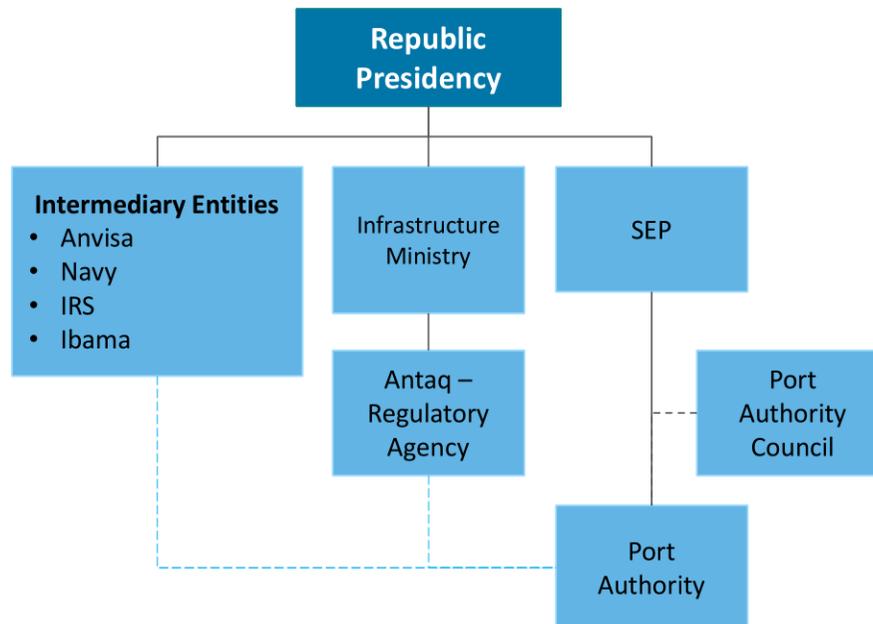




# Public Value Chain and Regulations

Regulatory Environment – Sector regulatory entities.

Port Authority (AP) is responsible for managing the ports. There's an AP for each port. The AP is under the regency of the Special Secretary for Ports (SEP) and regulated by the National Waterway Transport Agency and intermediary entities.



## Roles and Responsibilities

**SEP:** Special Secretary for Ports

- In the role of the executive branch, it is responsible for elaborating and promoting sectoral policies for ports.

**ANTAQ:** Nacional Water Transport Agency

- As a regulatory agency, it regulates and inspects public and private agents in water transport.

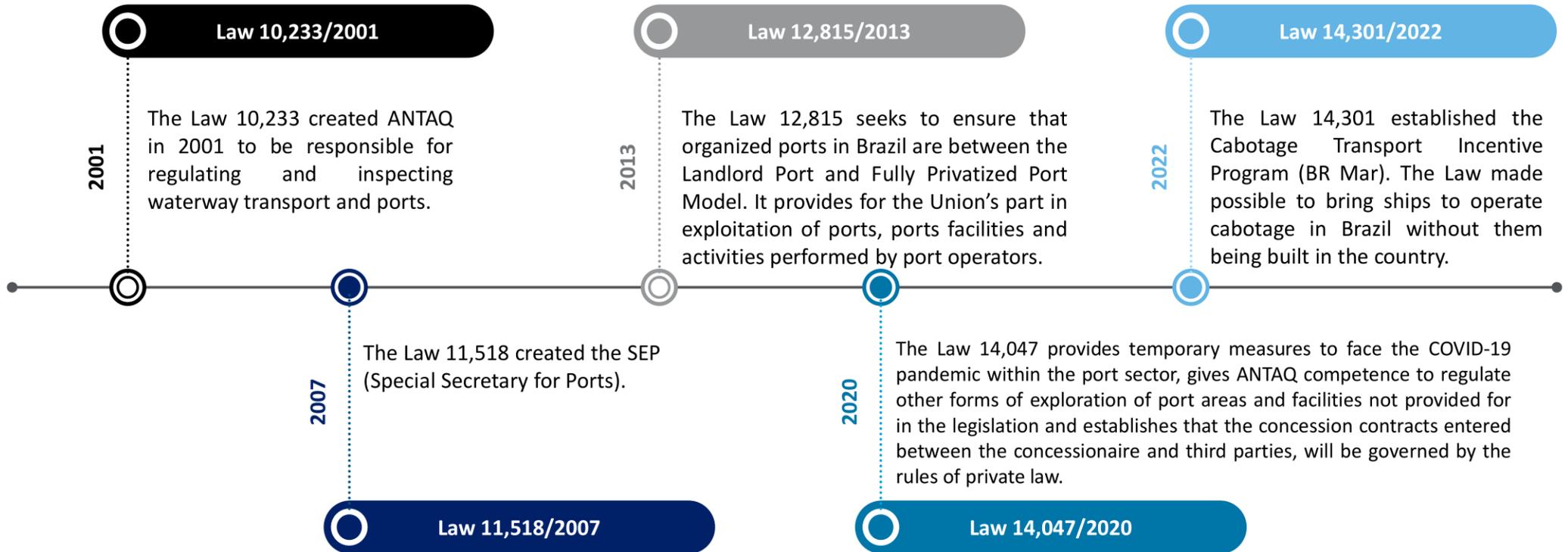
### Intermediary Entities

Responsible for inspecting the port authority

- **ANVISA:** National Health Surveillance Agency
- **MARINHA:** Brazil's Navy
- **IRS**
- **IBAMA:** Brazilian Institute for the Environment and Renewable Natural Resources

# Public Value Chain and Regulations

## Regulatory Environment – Main Sector Laws.



Source: Camera News Agency and Planalto.

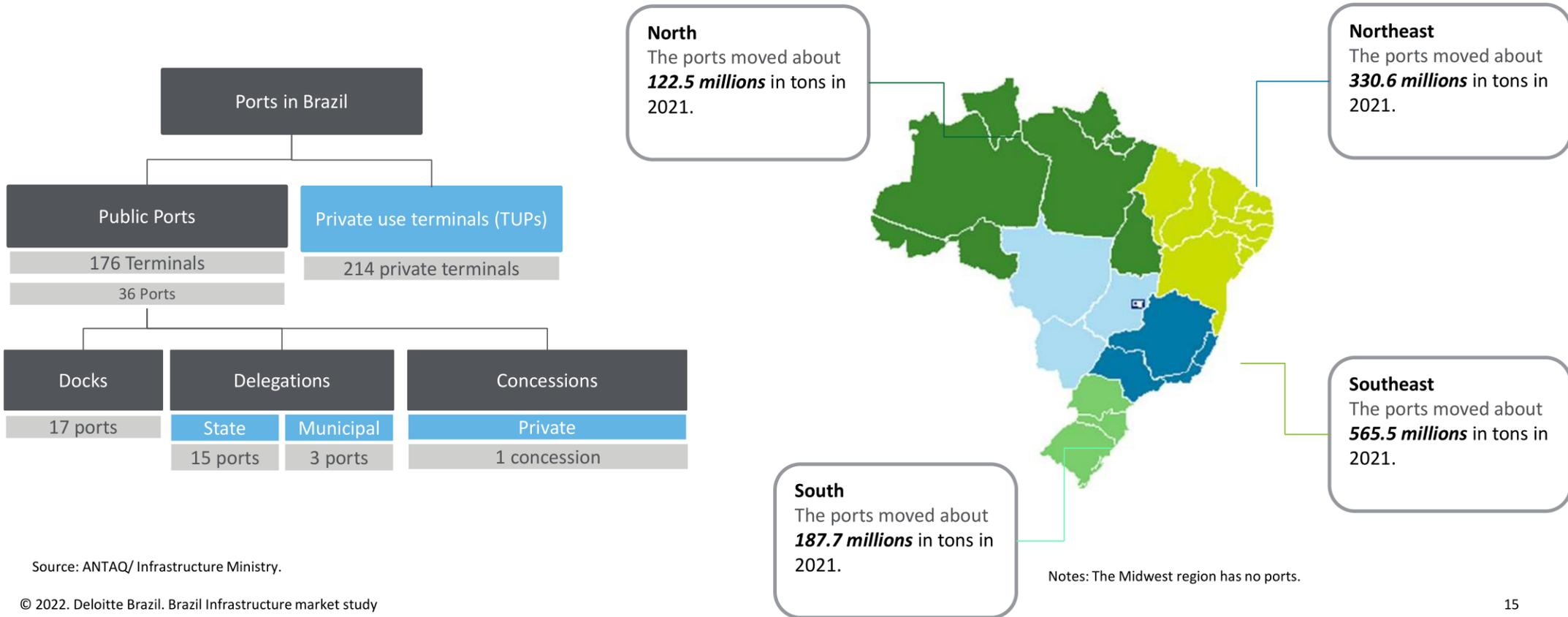
# General Sector Overview



# General Sector Overview

## Distribution of public and private ports (TUPs)

In Brazil, there are 390 port terminals: 214 terminals for private use (TUP's), located in private ports; and 176 leased terminals in organized ports (public ports).



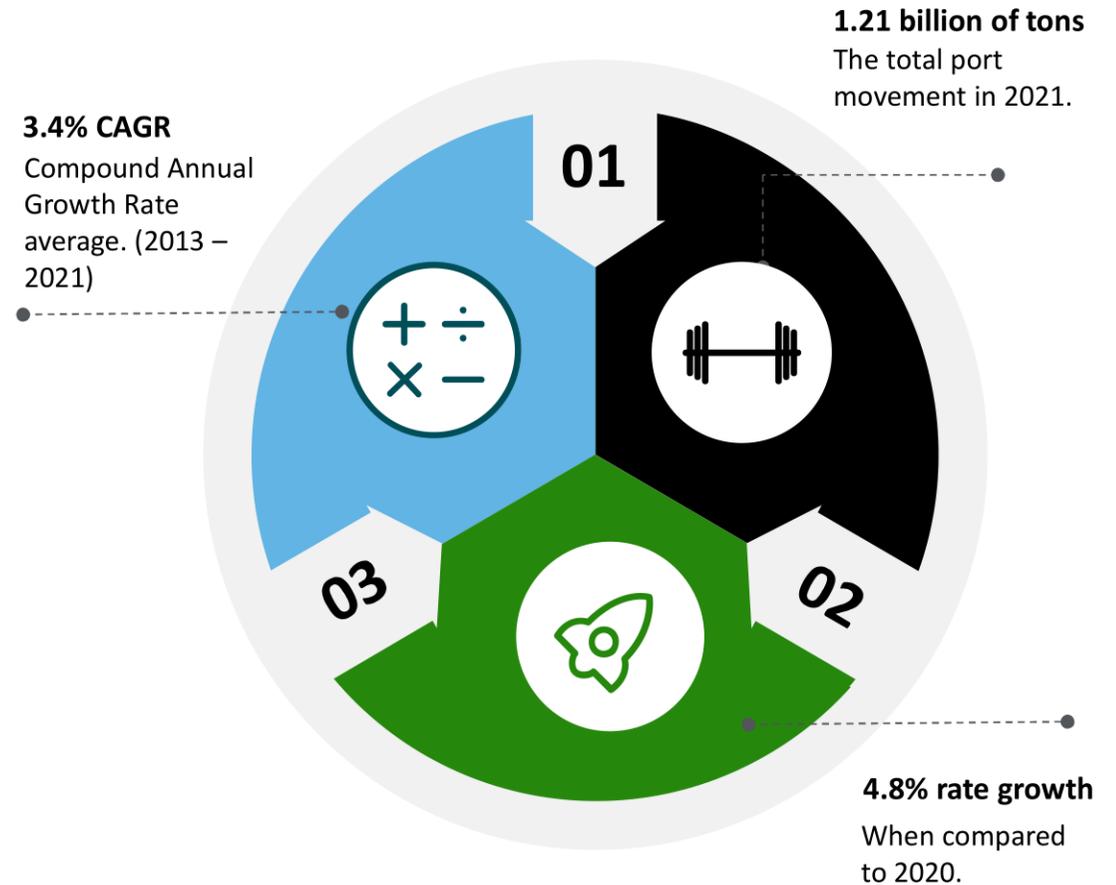


## General Sector Overview

Market size in terms of volume - The numbers show that maritime transport is the famous sleeping giant.

The port sector has been growing over the years, since 2013 the number of transported tons has grown 3.4% p.y.

Due to its geographic position, Brazil has an enormous potential in the development of the waterway modal.



Source: ANTAQ.

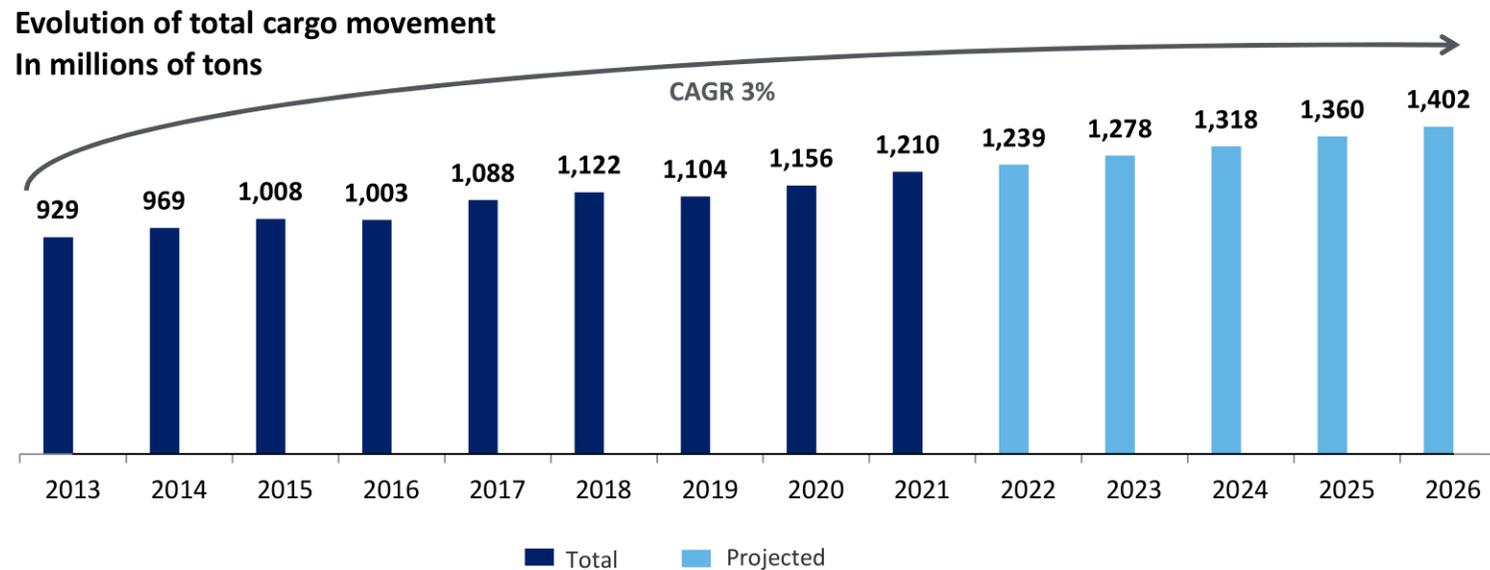


## General Sector Overview

Market size in terms of volume - The volume transported in private use terminals (TUPs) and public ports in Brazil has grown by an average of 3% per year since 2013, and it's expected to continue growing by the same rate until 2026.

The Brazilian port sector (public ports and private terminals), moved about 1.21 billion in tons in 2021. The number represented 4.8% growth compared to 2020.

ANTAQ has also released the port movement expectation for the upcoming years. For 2022, studies indicate that the total movement will reach 1.24 billion in tons, a 2.4% growth compared to 2021. For the next four years, the expectation is that it will maintain the upward bias in port movement. In 2026, the expectation goes up to 1.40 billion. A CAGR of 3.0% expected from 2021 to 2026.



Source: ANTAQ.



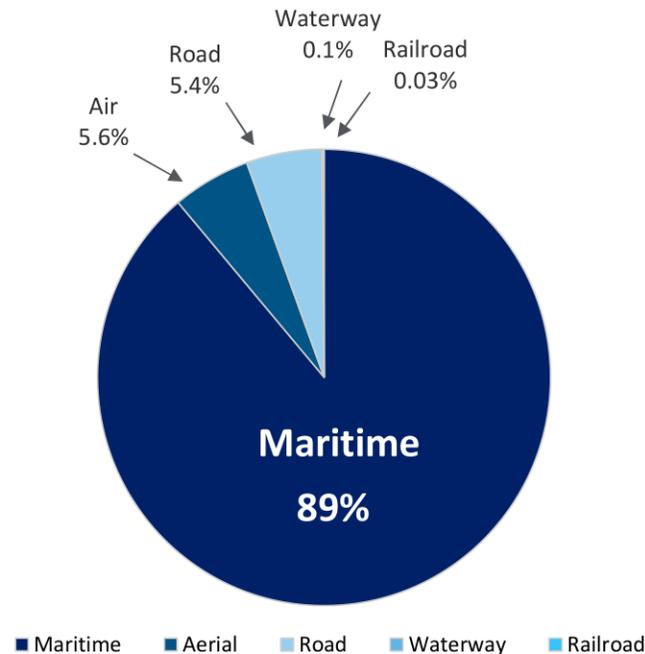
## General Sector Overview

Importance of ports in international logistic – exportation modal share % - maritime transport is the most used in international logistic transports.

The maritime transport participates with 89% of total exports in terms of value (equivalent to 187 billion dollars), and 98.6% of total exports in terms of volume (equivalent to 663 million tons).

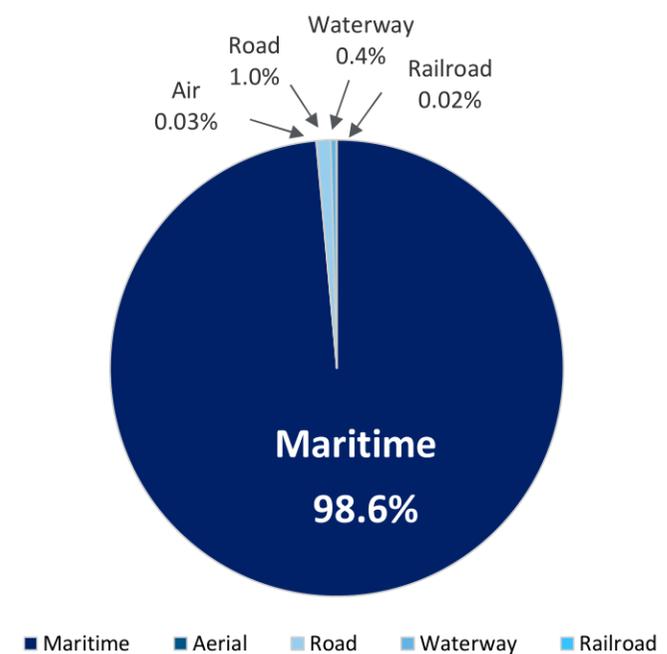
Representation by transportation way in 2020

In US\$



Representation by transportation way in 2020

In tons



Source: ANTAQ.



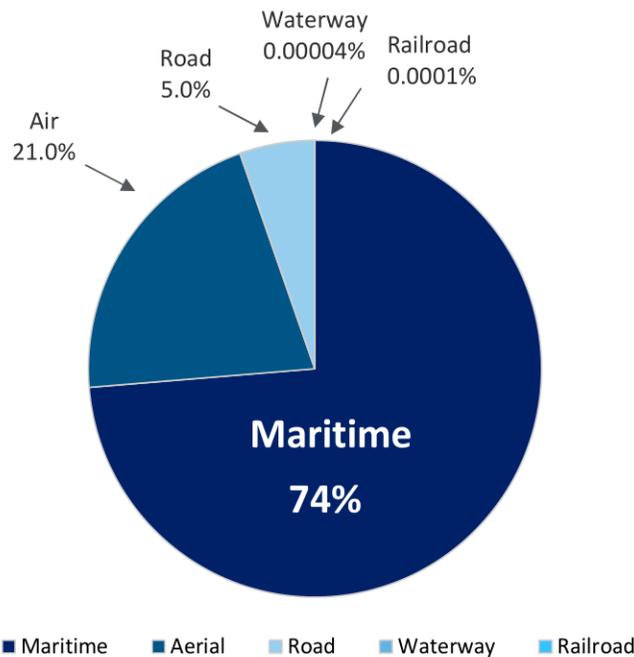
## General Sector Overview

Importance of ports in international logistic – importation modal share % - maritime transport is the most used in international logistic transports.

The maritime transport participates with 74% of total imports in terms of value (equivalent to 118 billion US Dollars), and 95% of total imports in terms of volume (equivalent to 143 million tons).

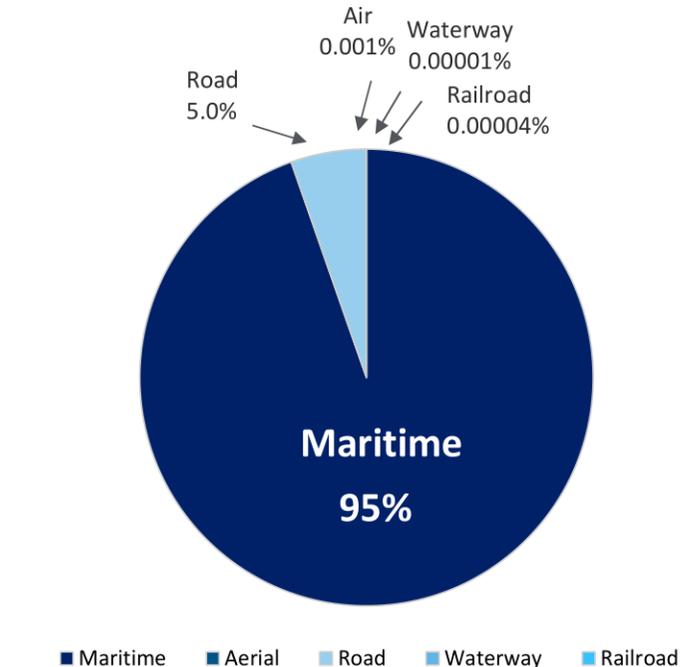
Representation by transportation way in 2020

In US\$



Representation by transportation way in 2020

In tons



Source: ANTAQ.



## General Sector Overview

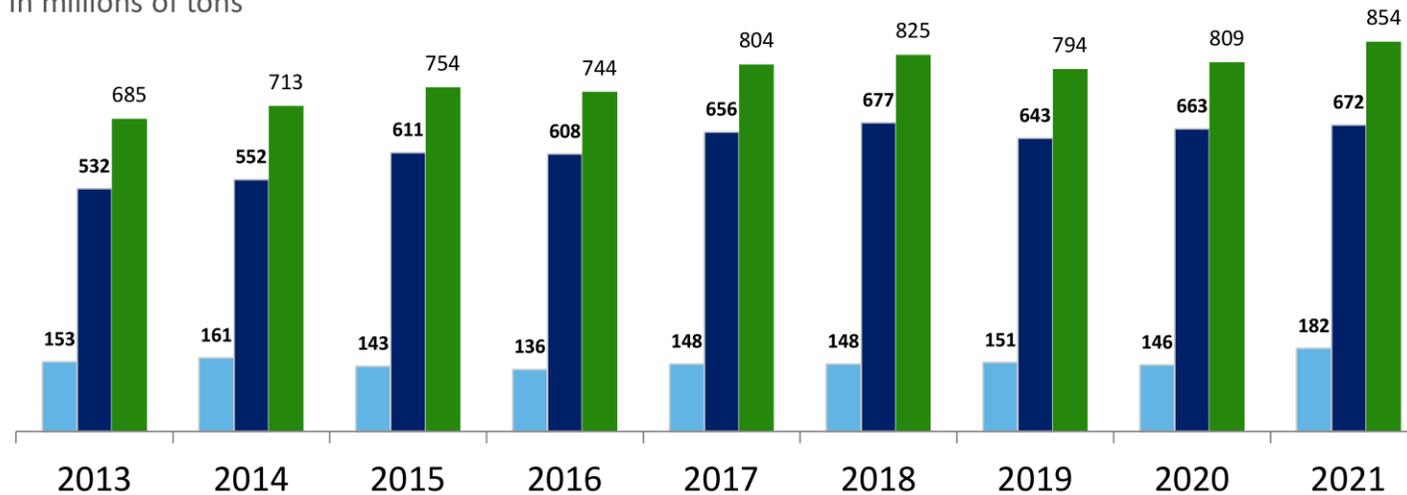
Importance of ports in international logistic - The maritime represents more than 98% of the total operations.

From 2020 to 2021, the exportation in the port sector grew by 1.3%, with a 3% CAGR between 2013 until 2021. The importations, on the other hand, grew by 2.9%, with a 2% CAGR, also between 2013 until 2021.

Both exports and imports have been growing in monetary terms and, as a result, Brazil has maintained a positive trade balance.

### Navigation Evolution

In millions of tons



Source: ANTAQ.



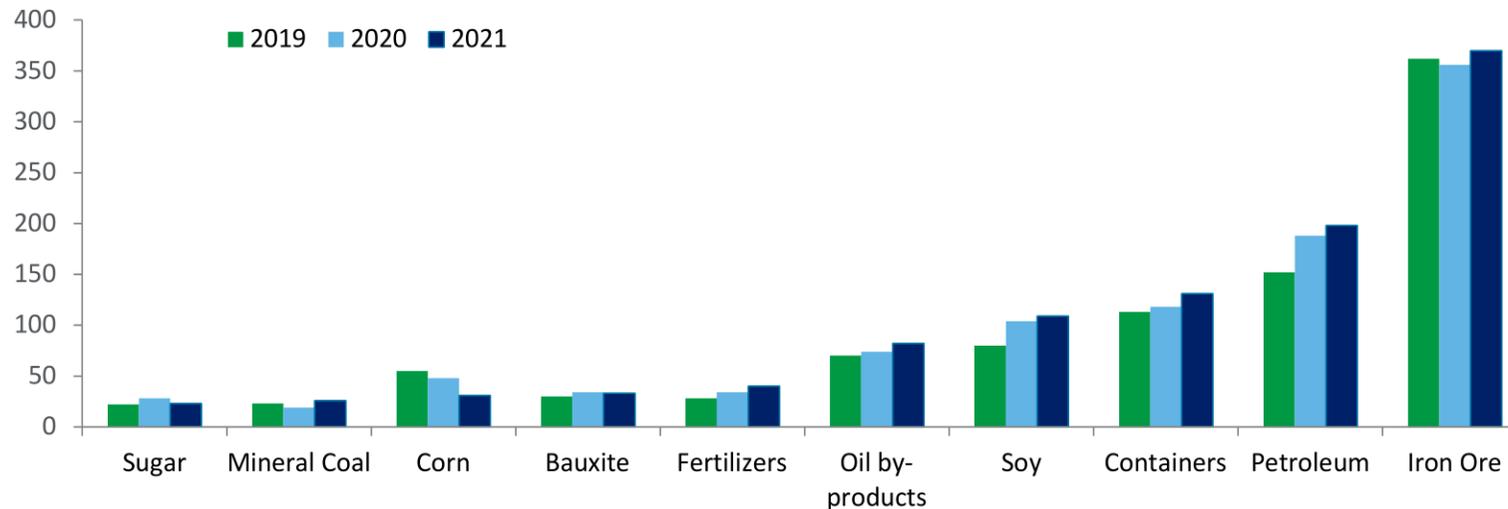
## General Sector Overview

The value of ports – The main items transported are commodities, representing almost 90% of the volume handled.

The cargo transport activity in national ports is mostly explored by the private sector, where the consolidated volume of cargo handled is strongly impacted by the exports of iron ore and petroleum. On the other hand, in organized (public) ports, the cargo profile is more diversified. The National Port Logistics Plan (PNLP) projects a consistent growth in cargo transportation through Brazilian ports until 2060.

### Ranking of products moved (total movement – import/exports ) in 2019, 2020 and 2021.

In approximate millions of tons

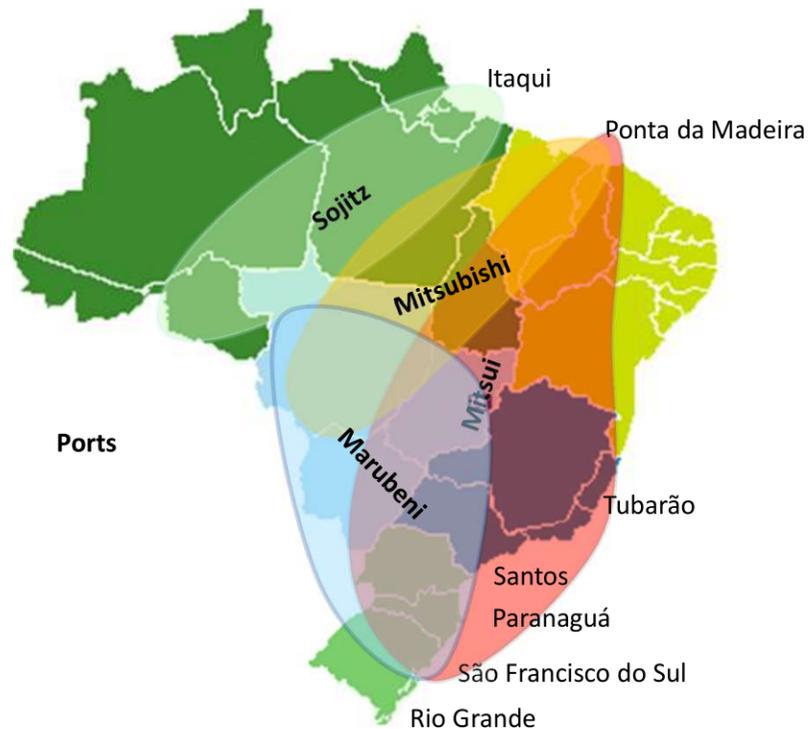


Source: ANTAQ.



## General Sector Overview

Operations by Region - Selected Ports – Brazilian main geographic areas of Japanese companies' activities.



Considering the transportation of grains and iron mining and Japanese companies' geographic performance activity areas, the following ports have been selected to be the focus of our study:

- Itaqui;
- Ponta da Madeira;
- Tubarão;
- Santos;
- Paranaguá;
- São Francisco do Sul;
- Rio Grande.



## General Sector Overview

Comparison with other ports worldwide - Santos occupies the 46th position among the largest ports in the world, in terms of cargo handling in 2020.

To evaluate volumes of shipped cargo, the usual approach is to count how many 20-foot containers were counted during the entry and the exit from a port. A 20-foot (6.1 meter) container represents a twenty-foot equivalent unit (TEU). Therefore, if a shipping container is 40 feet (which most shipping containers are), it counts as two TEU (40/20).

Ranking	Port	Country	Volume in 2020 (millions of TEUs)
1	Shanghai	China	43,5
2	Singapore	Singapore	36,6
3	Ningbo-Zhoushan	China	28,7
4	Shenzhen	China	26,6
5	Guangzhou	China	23,2
6	Qingdao	China	22,0
7	Busan	South Korea	21,6
8	Hong Kong	China	20,1
9	Tianjin	China	18,4
10	Rotterdam	Netherlands	14,4
11	Jebel Ali	Dubai, UAE	13,5
12	Klang Port	Malaysia	13,2
13	Antwerp	Belgium	12,0
14	Xiamen	China	11,4
15	Tanjung Pelepas	Malaysia	9,9
16	Kaohsiung	Taiwan	9,6
17	Los Angeles	US	9,2
18	Hamburg	Germany	8,7
19	Long Beach	US	8,1
20	Laem Chabagn	Thailand	7,6
21	New York	US	7,6
22	Saigon	Vietnam	7,2
23	Colombo	Sri Lanka	6,9

Ranking	Port	Country	Volume in 2020 (millions of TEUs)
24	Dalian	China	6,6
25	Yokohama	Japan	n/a
26	Tanjung Priok	Indonesia	6,2
27	Suzhou	China	n/a
28	Tanger Med	Morocco	5,8
29	Yingkou	China	5,7
30	Pireu	Greece	5,4
31	Valencia	Spain	5,4
32	Taicang	China	n/a
33	Hai Phong	Vietnam	n/a
34	Algeciras	Spain	5,1
35	Rizhao	China	4,9
36	Nhava Sheva	India	4,7
37	Savannah	USA	4,7
38	Manila	Philippines	4,4
39	Bremen/Bremerhaven	Germany	n/a
40	Lianyungang	China	n/a
41	Mundra	India	n/a
42	Colon	Panama	4,4
43	Tokyo	Japan	n/a
44	Foshan	China	n/a
45	Jeddah	Saudi Arabia	n/a
46	Santos	Brazil	4,2

Source: MoverDB.



## General Sector Overview

Market size in terms of volume - Ranking of the largest ports in Brazil by volume – All of the 7 selected ports are in the list of the largest cargo transporters in 2020, moving 525 millions of tons or about 45% of total volume.

The ten public and private largest cargo transporters in 2020							
#	Public Ports	State	Volume moved (in millions of tons)	#	Private Ports	State	Volume moved (in millions of tons)
1.	Santos	SP	146	1.	Ponta da Madeira Maritime Terminal	MA	191
2.	Paranaguá	PR	57	2.	Angra dos Reis Waterway Terminal	RJ	60
3.	Itaguaí	RJ	46	3.	Tubarão Terminal	ES	56
4.	Rio Grande	RS	38	4.	São Sebastião (Almirante Barroso) Waterway Terminal	SP	52
5.	Suape	PE	26	5.	Petróleo TPET/T-Oil - Açú Terminal	RJ	30
6.	Itaqui	MA	25	6.	Açú - Ore Port Terminal	RJ	24
7.	Vila do Conde	PA	15	7.	Ilha Guaíba (TIG) Terminal	RJ	24
8.	Santarém	PA	14	8.	Madre de Deus Waterway Terminal	BA	20
9.	São Francisco do Sul	SC	12	9.	Brazil's Southeast Port	RJ	19
10.	Rio de Janeiro	RJ	8	10.	Ilha D'Água Waterway Terminal	RJ	18

**Total volume moved: 1.16 billion of tons in 2020.**  
**Total volume moved - largest cargo transporters: 0.88 billion tons in 2020**  
**Total volume moved - selected ports: 0.52 billion tons in 2020**

Source: ANTAQ.



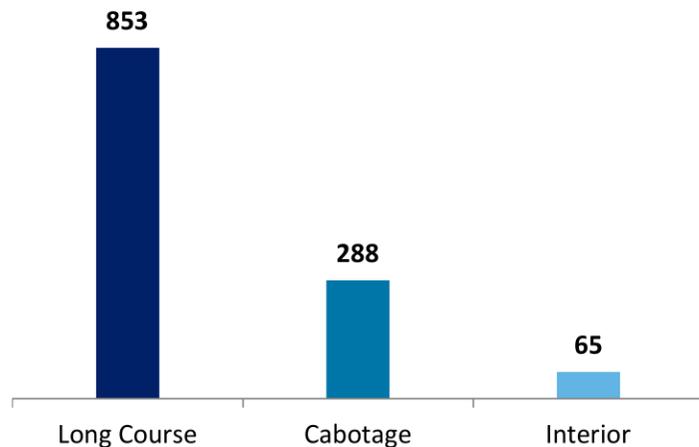
# General Sector Overview

## Volume Transported – Navigation types – Opportunities in cabotage navigation.

Considering the types of navigation used in cargo transport - long distance, cabotage and interior – it is possible to indicate the data of performance of the movement of goods by type of navigation cargo in the loading and unloading operations.

### Volume moved by navigation type

Approximate total transported in 2021  
In millions of tons



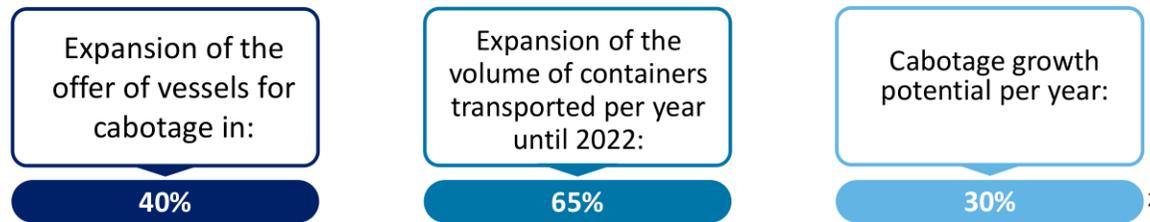
Source: ANTAQ/ EPL.

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The cabotage navigation grew 5.6% from 2020 to 2021, with a total moved of 288.3 millions of tons. It appears that even with innovations in the regulation of the sector, cabotage navigation has not yet taken advantage of its full competitive potential in Brazil. EPL estimates indicate that currently cabotage costs on average 60% less than road mode and 40% less than rail. However, this mode accounts for only 11% of the Brazilian logistics matrix, being considered an extremely promising alternative for the coming years.

The Bill nº 4199/2020, called “BR do Mar” is an initiative of the Ministry of Infrastructure and its main objectives are to encourage cabotage in the country, by increasing supply, encouraging competition and competitiveness, reduction of logistics costs, expansion of routes and balance of the Brazilian transport matrix. One of the main changes proposed in the BR do Mar Program is to enable the expansion of cabotage operations and, consequently, the entry of new companies. Therefore, the Law 14,301/2022 established that ships that were not built in Brazil can also operate in cabotage in the country.

### Estimate of expected results with the BR Mar:





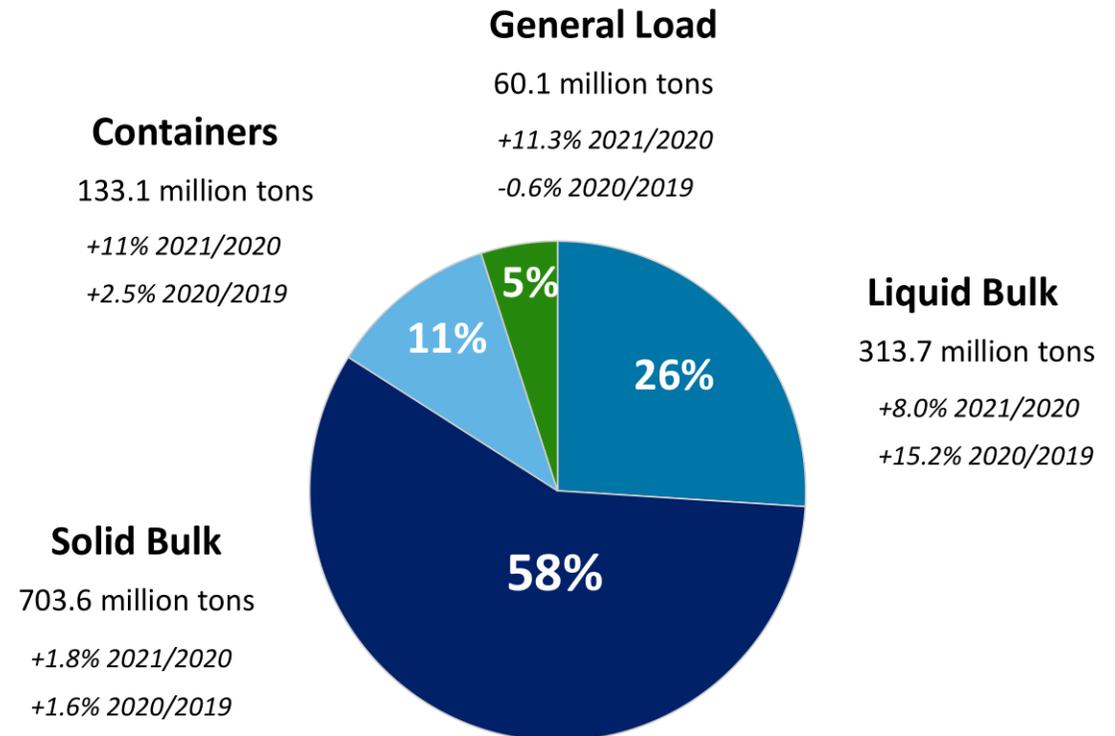
## General Sector Overview

Volume Transported – Cargo profiles.

Regarding cargo profiles, 2021 registered growth in the movement of solid bulk, liquid bulk, containers and general cargo. The handling of containers, for example, recorded an increase of 11% compared to 2020. There were 133.1 million tons. The solid bulk grew by 1.8% and the liquid bulk by 8%. The general load reached a 11.3% growth.

### Representation by cargo profile

Percentage distribution in 2021



Source: ANTAQ.

## General Sector Overview

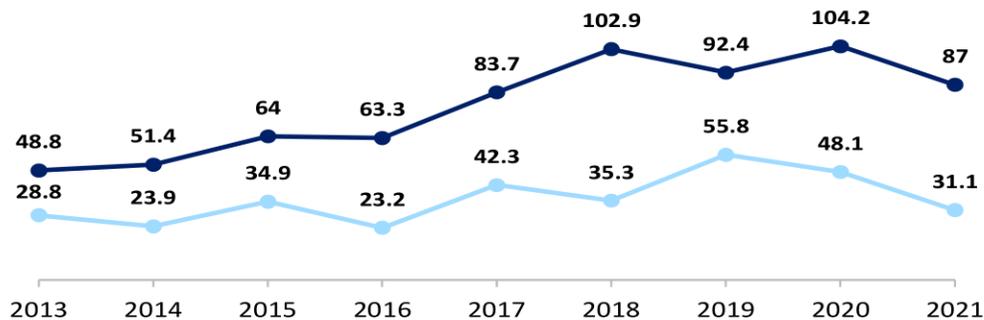
Volume Transported – Cargo profiles – Grains and Iron ore - Grains are both classified in solid bulk and in containerized cargo.

### Grains

The progressive increase in grain consumption and new markets for Brazilian agribusiness exports reinforce the need to reduce costs and make national products more competitive. Despite the still very uncertain economic and geopolitical context in 2022, producers and sectoral agents believe that new projects for port terminals and land access will be implemented in the coming years to ensure the flow of cargo.

The Association of Private Port Terminals (ATP) notes that there are many projects related to grain logistics underway. Only in Arco Norte, there are projects for grain handling in Itacoatiara (AM), Barcarena (PA) and Aratu (BA). The perspective is that the port capacity for grain handling is keeping pace with Brazilian production.

### Soy and Corn (in millions of tons)



Source: ANTAQ.

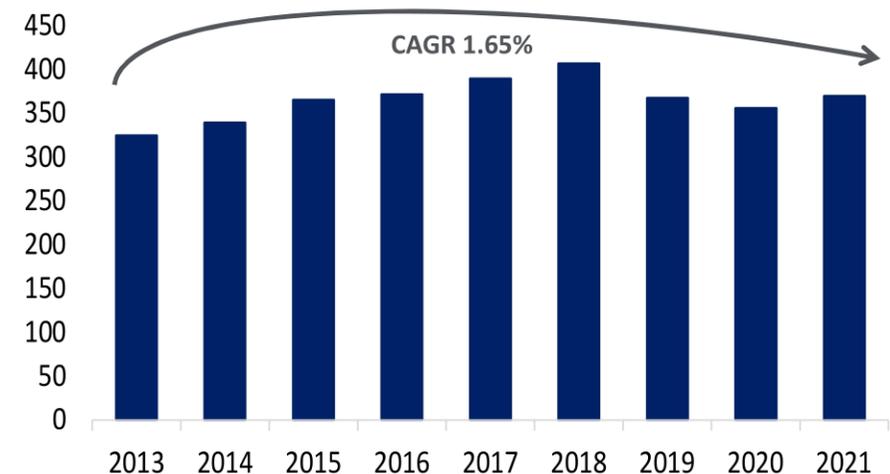
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### Iron Ore

Regarding the main loads handled, iron ore continues to be the biggest highlight in terms of quantity. There were 370.4 million tons moved in 2021: an increase of 4% compared to 2020 (356.1 million tons). The Ponta da Madeira Terminal (MA) is the facility that handles the most of iron ore in Brazil.

## Evolution of cargo moved

(in millions of tons)



Notes: Approximated values.

# Main Players



## Main Players

7 Selected ports and TUPs's management entities and volume handled in 2020.

		Port	Administration	Entity	Millions of tons moved in 2020
Organized Ports (public)	Docks	SANTOS	Union (Federal Government)	Companhia Docas do Estado de São Paulo (CODESP)	146
	Delegations	PARANAGUÁ	State	APPA	57
		RIO GRANDE		SUPRG	38
		ITAQUI		EMAP	25
Concessions	SÃO FRANCISCO DO SUL	State	APSFS	12	
Private Ports (TUPs)	Authorization	TUP	Administration	Entity	Millions of tons moved in 2020
		Ponta da Madeira	Private	Vale do Rio Doce Company	191
Tubarão	56				

Source: Consolidated data from the companies' websites.



## Main Players

Companies that own several TUPs.

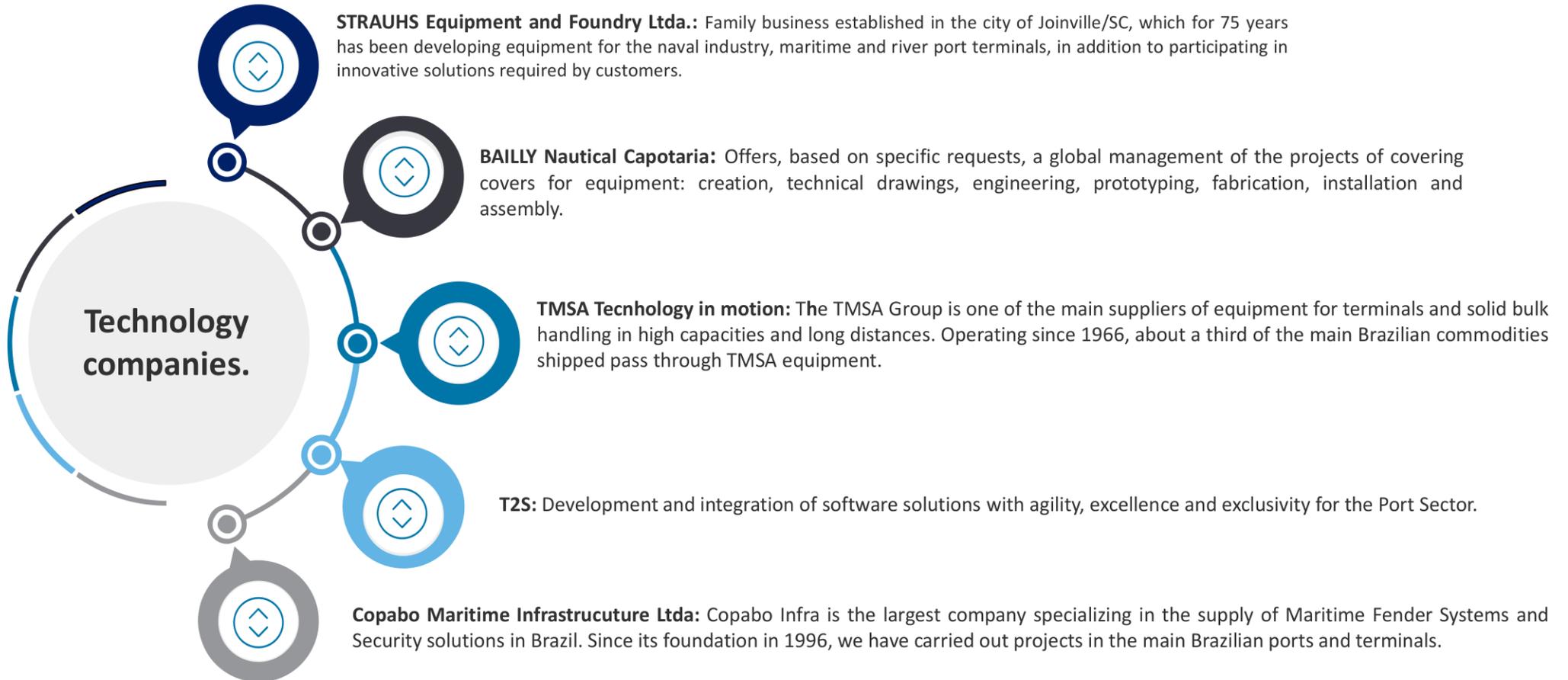
Company	TUP
Petrobras	Japeri
	Jequié
	Macapá
	Angra dos Reis
	Aracaju
	Guanabara GNL bay
	Belém
	Barra do Riacho
	Barueri
	Maceió
	Biguaçu
	Madre de Deus
	Brasília
	Cabedelo
	Cabiúnas
	Campos Elíseos
	Manaus
	Mucuripe
	Niterói
	Norte Capixaba
	Osório
	Paranaguá
	GLN Pecém
	Santos
	São Francisco do Sul
	São Luís
	Candeias
	Coari
	Cubatão
	Guamaré
	Guaramirim
	Guararema
Guarulhos	
Ilha d'Água	
Ilha Redonda	
Itabuna	
Itajaí	
São Sebastião	
Suape	

Company	TUP
Petrobras	Vitória
	Ribeirão Preto
	Rio Grande
	Senador Canedo
Vale	Uberaba
	Uberlândia
	São Caetano do Sul
	Volta Redonda
	Tubarão
	Ponta da madeira
	Itaguaí
	Ilha Guaíba
	Gregório Curvo
	Teluk Rubiah
IMETAME	Balintang
	Harapan Tanjung Mangksa
Bianchini	Nueva Palmira
	Sohar
Gerdau	Aracruz
	Bianchini
Chibatão	Rio dos Sinos
	Praia mole
J.F de Oliveira Nav.	Gerdau Salvador
	Chibatão
	Chibatão 2
	J.F de Oliveira Belém
TBL	J.F Oliveira Manaus
	J.F Oliveira Passarão
	J.F Oliveira Belmonte
Cargill	Bertonlini Belém
	IBEPAR Manaus
	Bertolini Santarém
	Miritituba
Prumo Logística	Paranaguá
	Santarém
	Porto Velho
	Açu Port Complex
	Açu Port Terminal

Source: ANTAQ.

## Main Players

Technology providers companies.



Source: Ports and Ships.



## Main Players

Major iron ore companies.

The Iron Ore is one of the most known, explored and necessary metals in the world. Australia, Brazil and China are the world's largest producers of the metal. Iron mining is of great economic importance in Brazil due to the resources invested and financial returns involved, the deposits found with potential for exploration and those with active mining attract millionaire investments every year.

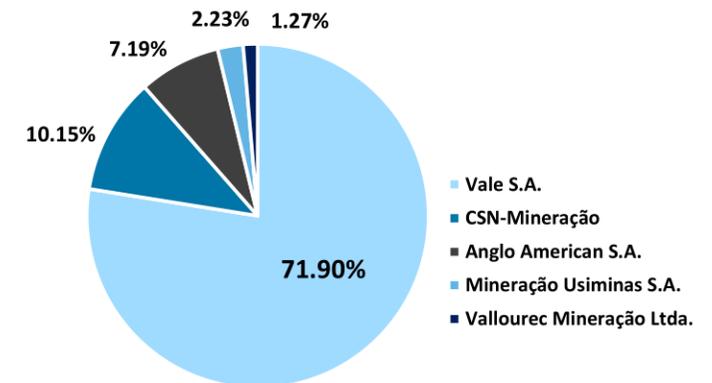
Currently, the main companies producing Iron Ore in Brazil are:

- Vale S.A.;
- CSN – Mineração;
- Anglo American Minério de Ferro Brasil S.A.;
- Mineração Usiminas S.A.;
- Vallourec Mineração Ltda.

Source: ANM.

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## Participation % of the companies in the production of iron ore



Vale is the world's largest producer of iron ore and pellets, essential raw materials for the manufacture of steel. Carajás is the company's largest operation, located in the north of Brazil. Carajás ore is considered the best quality iron ore in the world, which is one of the factors that guarantees the commodity's prominence in the country.



## Main Players

Major agribusiness companies.

The 5 largest agricultural producers in the world are China, the United States, Brazil, India and Russia. Brazil has been standing out in the commodity export market for a while now. In 2020 alone, agribusiness represented more than 20% of the country's GDP. This, in turn, represents half of Brazil's exports with US\$ 55.4 billion in monetary value. The main export products of Brazilian agribusiness are soy and beef.

The 10 largest companies in Brazilian agribusiness, according to Forbes:

-  JBS;
-  Raízen;
-  Cosan;
-  Marfrig;
-  Cargill;
-  Ambev;
-  Bunge;
-  Copersucar;
-  BRF;
-  Cofco International.

Source: BMC News.

# Federal Government's Strategy



## Federal Government's Strategy

### Future Program of the Port Sector

Launched in 2021, the program has the objective of stimulating the modernization of organized ports and increasing their competitiveness, with a focus on reducing bureaucracy, improving management, improving the training of managers and port workers and the implementation of new technology, promoting more logistical efficiency. .

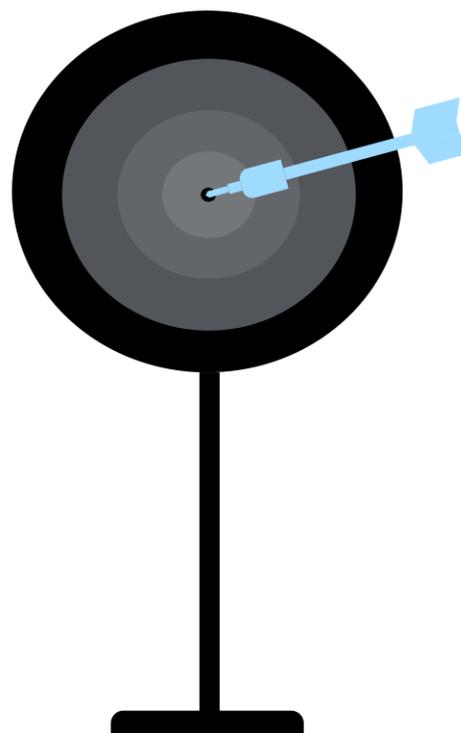
The Future Program for the port sector operates on four axes:

#### Normative Revisions

Focused on reviewing normative acts, bringing greater legal certainty, as well as streamlining and making new private investments in organized ports more flexible.

#### Professional Capacity

Which encourages the improvement of managers and workers in the port sector, making them increasingly qualified for the constant challenges of the modern world, mainly due to constant technological evolution.



#### Modernization Management

Focused on encouraging the modernization of the management of Dock Companies and Delegated Ports, improving governance by reinforcing managerial autonomy and decentralizing competences with the implementation of strategic goals, with the aim of improving the results of companies and seek its sustainability.

#### Innovation

Which includes Logistics Intelligence projects, strengthening Digital Transformation in Ports, bringing more efficiency and competitiveness to port operations.

Source: BNDES.



## Federal Government's Strategy

### Investment Partnership Program – PPI.

The Investment Partnership Program (PPI) was created, within the scope of the Presidency of the Republic and other privatization measures.

#### The objectives of the PPI are:



Once the ventures are qualified in the Investment Partnerships Program, they will be treated as a national priority. The bodies and entities involved must act so that the processes and acts necessary for the structuring, release and execution of the project occur efficiently and economically.

Source: BNDES.

The port sector is one of the infrastructure sectors that develops precisely with the establishment of partnerships between the State and the private sector. Therefore, a system of partnerships was established between the State and the private sector, which has been successful, so much so that it has been maintained and expanded with the New Law on Ports.

# Selected Ports and TUPs - Profile

## Selected Ports and TUPs - Profile

SP – Santos Port.



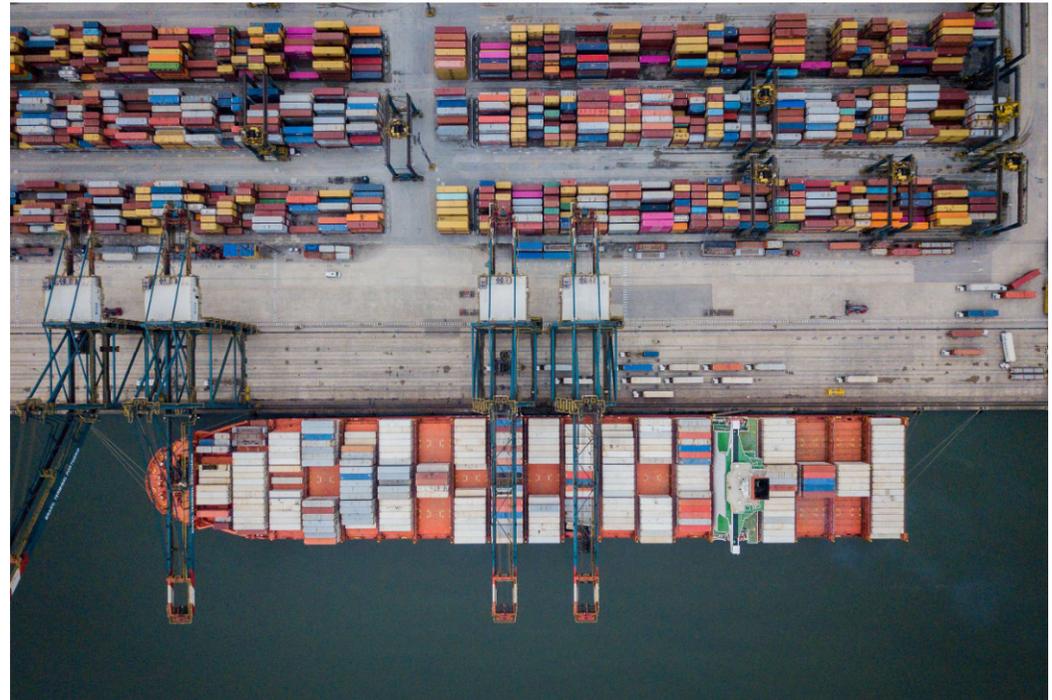
### Santos Port Complex



The Santos Port Complex is a set of terminals dedicated to the storage and movement of cargo and passengers installed along the Santos estuary, the natural boundary between the municipalities of Santos, Guarujá and Cubatão – constituting the largest port in Latin America.

Source: The port's website.

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The Santos Port aerial view.



## Selected Ports and TUPs - Profile

SP – Santos Port – The largest Port Complex in Latin America.

### News

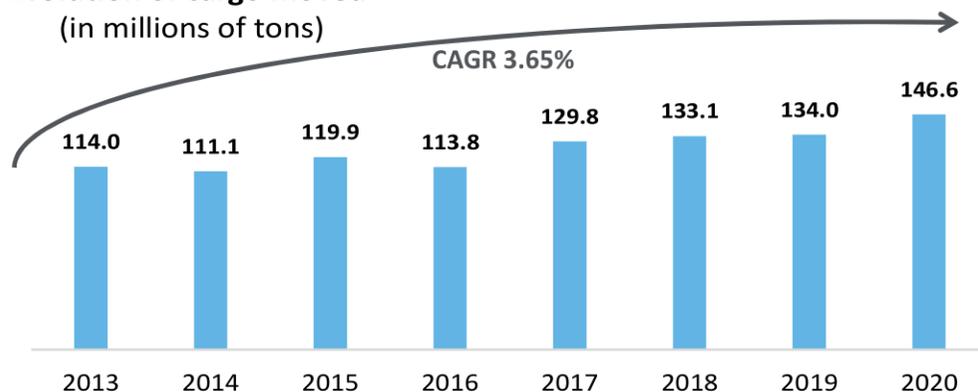
The Port of Santos connects more than 600 destinations and is the main gateway for goods entering and leaving the country, handling cargo from all Brazilian states and more than 200 countries. In 2020, it was responsible for handling 146.6 million tons of cargo, setting a new annual record, with a volume 9,4% higher than 2019.

Shipments reached 106.7 million tons, a performance 13.2% higher than in 2019. The biggest positive absolute variation were observed in bulk sugar shipments (67.5%); bulk soybeans (12.5%) and containerized cargo (6.0%). Landings reached 39.8 million tons, 0.3% higher when compared to 2019. The most positive absolute variations were verified in diesel oil (24.6%); bulk sulfur (24.6%) and bulk fertilizer landings (16.3%).

The Port's 2020-2040 Zoning and Development Plan sets a 49% capacity increase by 2040, reaching 240.6 millions of tons. The implementation of the Plan will result in new investments of R\$9.7 billion in the up coming years, with R\$2.5 billion in current contracts and R\$7.2 billion in new investments ( 8 leases and road-rail accesses).

### Evolution of cargo moved

(in millions of tons)



© 2022. Deloitte Brazil. Brazil Infrastructure market study  
Source: The port's website.

### General Information

Entity	CODESP
Types of cargo handled	Fertilizers, Ammonia, Coal, Sulfur, LPG, Iron Ore, Naptha, Salt, Caustic Soda, Wheat, Sugar, Alcohol, Coffee, Meat, Soybean, Gasoline, Corn, Fuel, Oil, Diesel Oil, Cellulose, Juices and containerized cargo.
Capacity	
Cargo moved	146.6 millions of tons
Channel depth	15 m
Wharf	16 km
Terminals	54 terminals
Berths	60 berths
Total area	8km <sup>2</sup>

Notes: Data from 2020.



## Selected Ports and TUPs - Profile

SP – Santos Port – Planned Investments – The port’s privatization is the second largest in the country.

### The project to make the Port of Santos private.

- The President of the Republic’s decree established the inclusion of the port of Santos in the Investment Partnerships Program (PPI) and in the National Privatization Program (PND). With the measure, the official process of the second largest privatization of the government began. The proposal provides for the privatization of the state-owned Santos Port Authority (SPA), former Docas do Estado de São Paulo Company (Codesp), in addition to the public port services it performs. The winner will have to make large investments for improvements and for the expansion of the port’s infrastructure, as well as maintenance of its facilities.
- The minimum asset grant amount is R\$1.38 billion. The consortium or company with the highest bid wins. The physical areas of the port will be granted for the winner for a period of 35 years.
- With total investments planned in order of R\$20.3 billion, the auction for the privatization of the port authority and the concession of the Port of Santos should take place at the end of this year. The projects are already under analysis at the Federal Audit Court (TCU).
- Of the R\$20.3 billion to be mandatorily invested by the winner, R\$14.1 will be invested in maintenance, during the term of the concession contract (35 years), another R\$3 billion will be invested in the construction of a 1.7 km submerged tunnel to connect Santos and Guarujá and the remaining part of the planned investment should be applied to works on new road accesses, port modernization and deepening of the Santos channel.
- There are also R\$265.6 millions of investments planned for the STS08 Santos Port terminal lease.

Source: GOV.

## Selected Ports and TUPs - Profile

PR – Paranaguá Port.



### Paranaguá Port



Source: portosenavios.

The Paranaguá Port aerial view.



## Selected Ports and TUPs - Profile

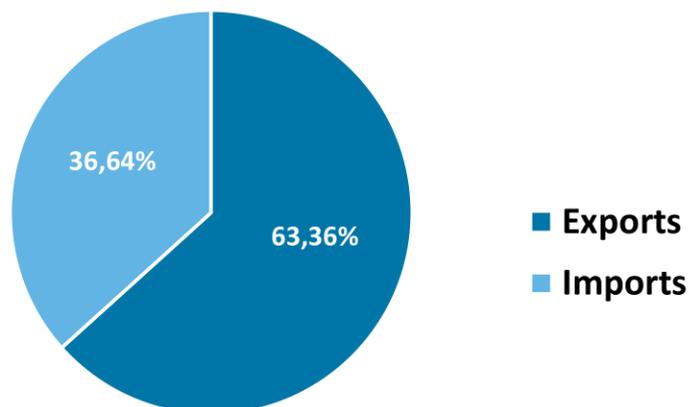
PR – Paranaguá Port – The largest **bulk** port in Latin America.

### News

The Port of Paranaguá is the second largest port in Brazil. It is the main transport route for the crop in the states of Paraná, Mato Grosso, Mato Grosso do Sul and Goiás. It also receives cargo from the states of Santa Catarina, São Paulo, Rio Grande do Sul and Rondônia.

The productivity records and growing infrastructure Evolution transformed the simple dock into a productivity giant, reaching the historic mark of 57.3 millions of tons in 2020, 8% higher than in 2019.

Exports reached 36.3 millions of tons and imports reached 21 millions of tons. a performance 13.2% higher than in 2019.



### General Information

Entity	APPA
Types of cargo handled	Soybeans, soybean meal, corn, salt, sugar, fertilizers, containers, frozen food, petroleum derivatives, ethanol and vehicles.

### Capacity

Cargo moved	57.3 millions of tons
Channel depth	16 m
Wharf	2.8 km
Terminals	11 terminals
Berths	20 berths
Total area	2.3 km <sup>2</sup>

Notes: Data from 2020, except for the numbers of Wharfs, Terminals, Berths and Total area, that are from 2017.



## Selected Ports and TUPs - Profile

PR – Paranaguá Port – Planned Investments – The port is attracting several investments for the next years.

### Port of Paranaguá is focused on attracting investments

With innovative projects and works that will expand cargo handling capacity, the port of Paraná attracts new investments and has become a logistics hub in South America.

- **New leases** - With new leases, the private investments already foreseen by the port authority could reach R\$ 2.6 billion in the coming years;
- **Other areas** - Another five areas of the Port of Paranaguá are already under study or in the process of leasing: PAR09, intended for handling solid vegetable bulk, should attract R\$ 493 million in investments and is in the public hearing phase and PAR32, with a R\$4.2 billion Capex, has already concluded the auction, for R\$30 million and is in the contract signing phase.
- **Due Diligence** - PAR14 also focused on solid bulk, are in the due diligence phase. It has a forecast of up to R\$ 1.2 billion in investments. PAR50, intended for liquid bulk, provides for an investment of R\$ 338 million;
- **Works** - In order to receive more cargo, the ports are preparing to increase their rail transport capacity.

Source: Corporate Paraná.

## Selected Ports and TUPs - Profile

RS – Rio Grande Port.



### Rio Grande Port



Source: The port's website.

The Rio Grande Port aerial view.



## Selected Ports and TUPs - Profile

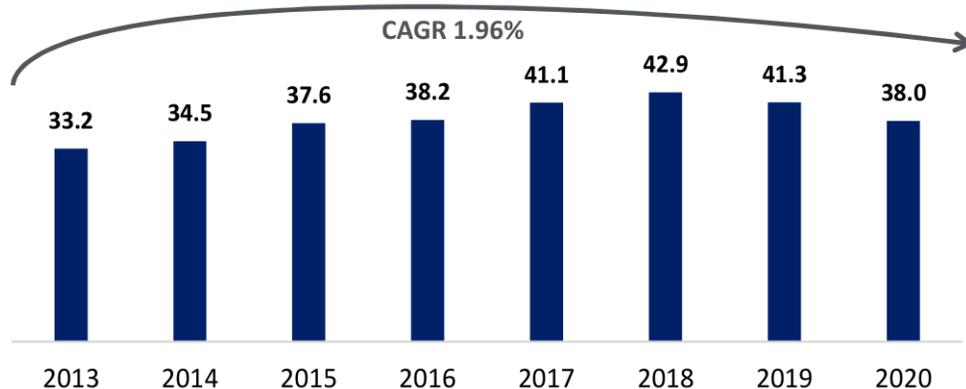
RS – Rio Grande Port – Equipped with a complete operational infrastructure, the port of Rio Grande is considered the second most important port for the development of the Brazilian international trade.

### News

Privileged for its geographical aspects, the Port of Rio Grande has consolidated itself as strategic complex due to its strong presence in the extreme south of Brazil, being among the most important in the American continent in terms of productivity.

With all this attractive power, the complex is currently expanding its activities. In June 2020, even with the pandemic stopping the entire world, Rio Grande broke its cargo handling record. Even though the total volume of 2020 was bit lower than 2019, the numbers for 2021 (45 million tons) and 2022 (24 million Jan-Aug) are very promising, demonstrating continuous growth.

### Evolution of cargo moved (in millions of tons)



© 2022. Deloitte Brazil. Brazil Infrastructure market study  
Source: The port's website.

### General Information

Entity	SUPRG
Types of cargo handled	Soybeans, soybean meal, corn, rice, wheat, cereals, fertilizers, containers, vehicles, cellulose, wood chip, chemicals and diesel oil.
Capacity	
Cargo moved	38 millions of tons
Channel depth	14.5 m
Wharf	6.5 km
Terminals	9 terminals
Berths	22 berths
Total area	50 ha

Notes: Data from 2020.



## Selected Ports and TUPs - Profile

RS – Rio Grande Port – Planned Investments – The company *Portos RS* plans biggest investment in a decade in the Rio Grande Port.

### Upcoming investments in the Port of Rio Grande

By the end of this year, the bidding processes for bathymetry, channel dredging and paving of the public pier in Rio Grande should be completed, with estimated investments of R\$ 100 million made by *Portos Rs*. Also, still at the end of 2022 and continuing until the first months of 2023, the launch of two other tenders for contracting services are expected, for the port traffic control system and for the automation of the gates, with the prospect of another R\$ 70 million in the new public company's (*Portos RS*) own contributions.

Source: Trade newspaper.

## Selected Ports and TUPs - Profile

MA – Itaquí Port.



### Itaquí Port



Source: The port's website.

The Itaquí Port aerial view.



## Selected Ports and TUPs - Profile

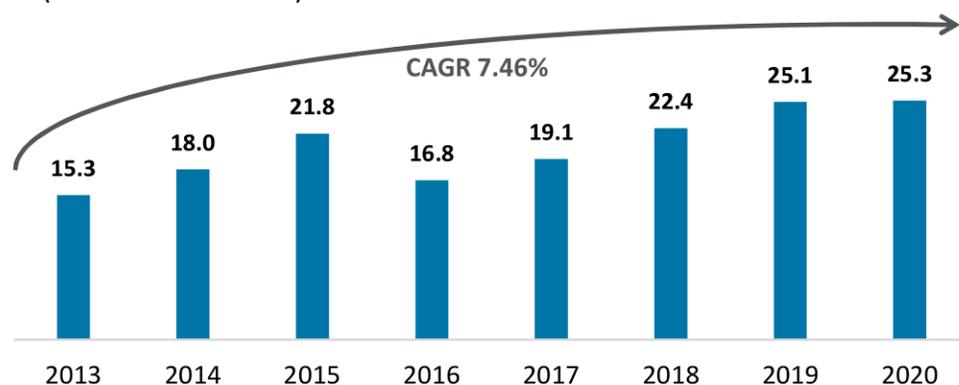
MA – Itaqui Port – One of the largest tidal ranges in Brazil.

### News

Itaqui's Port reaches the end of 2020 with handled volume of cargo above the historic mark reached in 2019, with 25.3 millions of tons. Grains reached 12.1 million tons, an increase of 8.5% over the same period last year. The fertilizers volume grew by 21%, when compared to 2019, reaching 2.6 millions of tons.

The Port of Itaqui has a strong side for handling solid and liquid bulk. Historically, the two chains that concentrate a large part of the volume are the production of grains - exports of soy and corn - and the movement of petroleum products - imports of diesel and gasoline.

**Evolution of cargo moved**  
(in millions of tons)



### General Information

Entity	EMAP
Types of cargo handled	Soybeans, soybean meal, corn, rice, wheat, cellulose, fertilizers, containers, coal, copper, petroleum derivatives, alcohol and ethanol.
Capacity	
Cargo moved	25.3 millions of tons
Channel depth	23 m
Wharf	1.9 km
Terminals	2 terminals
Berths	9 berths
Total area	0.174 km <sup>2</sup>

Notes: Data from 2020.



## Selected Ports and TUPs - Profile

MA – Itaquí Port – Planned Investments – The port looks for half a billion in investments.

### More than R\$500 million will be invested in the port of Itaquí

The Port of Itaquí is now preparing for a strong infrastructure expansion initiative. The reason is the company *Santos Brasil* has a project to expand and build new terminals for liquid bulk in the complex. The company will make an investment of R\$ 500 million. Therefore, the TGL 1 and TGL 3 terminals will undergo works with investment in the expansion of infrastructure, while the company prepares to complete the construction of a third terminal in 2023 and inaugurate it in the first few months.

Source: CPG.

## Selected Ports and TUPs - Profile

SC – São Francisco do Sul Port.



### São Francisco Port



The São Francisco Port aerial view.

Source: The port's website.



## Selected Ports and TUPs - Profile

SC – São Francisco do Sul Port – Named the third best performing port in the country.

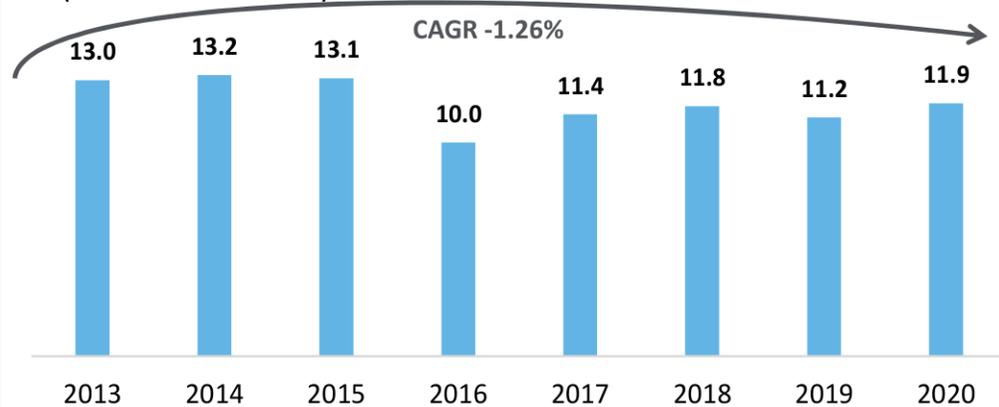
### News

The São Francisco do Sul Port obtained a growth of 5.87% in general handling last year compared to the same period in 2019. In total, there were 11,924,787 tons against 11,263,902 tons in the previous year. Among the main commodities, the highlight was soy, with a growth of 33.13%, well above the national increase, which was 12.10%.

This result had a significant impact on the port's revenue, closing the year with total revenue of R\$ 100,627,473.93, which represents an increase of 41.92%.

By 2045, demand is expected to grow by an average of 2% per year, reaching a total of 34.1 millions of tons.

### Evolution of cargo moved (in millions of tons)



© 2022. Deloitte Brazil. Brazil Infrastructure market study  
Source: The port's website/GOV.

### General Information

Entity	APSFS
Types of cargo handled	Soybeans, fertilizers, urea, cellulose, wood chip, steel equipment and vegetable oil.
Capacity	
Cargo moved	12 millions of tons
Channel depth	13 m
Wharf	780 m
Terminals	7 terminals
Berths	7 berths
Total area	0.244 km <sup>2</sup>

Notes: Data from 2020.



## Selected Ports and TUPs - Profile

SC – São Francisco do Sul Port – Planned Investments – Investments are focused on the improvement of the Port's productivity.

### Upcoming investments in the Port of São Francisco do Sul

Leasing of the Port's Bulk Terminal, which handles and stores solid vegetable bulk estimates a R\$60 million investment. The project is scheduled to end by the 4<sup>th</sup> quarter of 2023.

In a press conference held, the Port of São Francisco do Sul announced an investment of R\$4 million for three new scales and entry and exit gates of the port. With this, the port will have 5 scales. The objective is to reduce the queues of trucks to receive cargo and speed up operations.

Other planned investments are the construction of a new berth (401), with a Technical, Economic and Environmental Feasibility Study (EVTEA) and the demolition of berth 101, which will bring more productivity to ships that dock at the berths 101, 102 and 103.

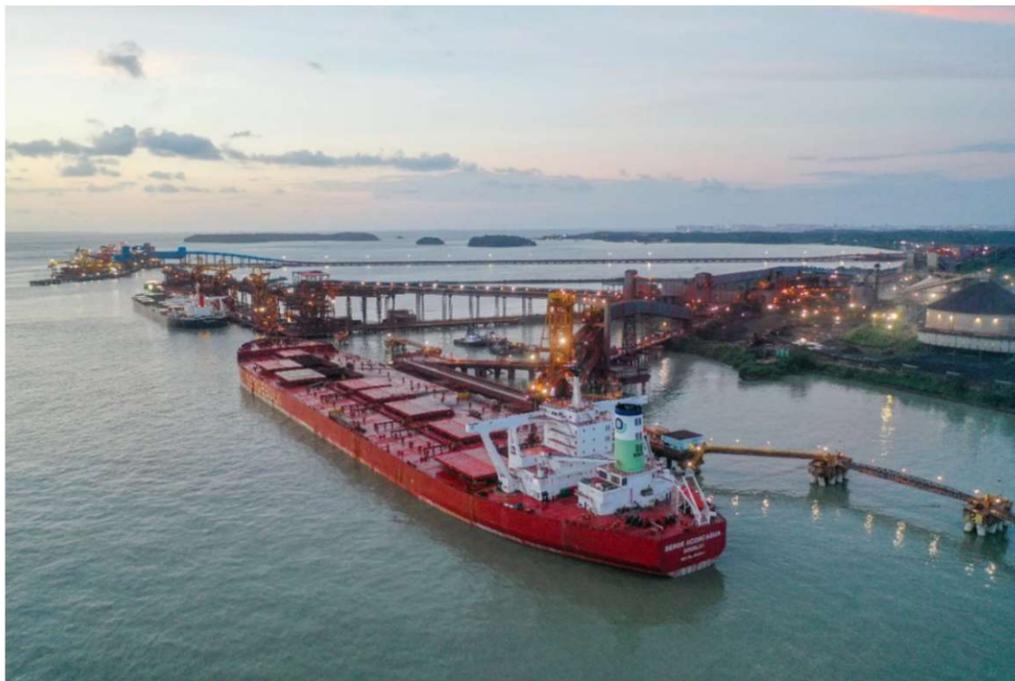
Source: PPI/ND.

## Selected Ports and TUPs - Profile

MA – Ponta da Madeira Terminal and ES – Tubarão Terminal.



### Ponta da Madeira Terminal



The Ponta da Madeira Terminal aerial view.

### Tubarão Terminal



The Tubarão Terminal aerial view.

Source: The port's website.



## Selected Ports and TUPs - Profile

MA – Ponta da Madeira Terminal – Leader among TUPs in cargo handling in Brazil since 2014.

### News

The Ponta da Madeira Maritime Terminal contributes to the Brazilian commercial power by being the great gateway for the country's ore production. One of its main differentials is the location and physical conditions that offer a great operational and commercial advantage over other locations.

Considering all that the Terminal Port of Ponta da Madeira already means for the country and what is expected for the future of the export of ore, it can be considered today as one of the most important for Brazil's trade and economy in relation to other countries. And its relevance tends to grow over the years and with the investments planned for the infrastructure.

### Ongoing investments made by Vale

Vale makes constant investments to ensure the continuous growth at full steam at the Ponta da Madeira terminal. The expansion of Porto is always on the company's mind and has reached 97% physical progress. The expansion of the onshore yard (in terrestrial environment) is still in progress.

Source: VALE/Wilsonsons/Mirant.

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### General Information

<b>Entity</b>	<b>Vale do Rio Doce Company</b>
<b>Types of cargo handled</b>	Iron ore, manganese ore, concentrated copper, containers and fertilizers.

### Capacity

<b>Cargo moved</b>	<b>191 millions of tons</b>
<b>Channel depth</b>	<b>23 m</b>
<b>Wharf</b>	<b>600 m</b>
<b>Terminals</b>	<b>3 terminals</b>
<b>Berths</b>	<b>5 berths</b>
<b>Total area</b>	<b>600 km<sup>2</sup></b>

Notes: Data from 2020.



## Selected Ports and TUPs - Profile

ES – Tubarão Terminal – The second largest iron ore export port in Brazil.

### News

The Tubarão Port began operations in 1966 and became the bridge that connected Vale S.A. (its management company) to the rest of the world, allowing the company to significantly increase the set of Brazilian exports. Designed to receive ships of a size that were not yet manufactured, the Port of Tubarão was a world pioneer in its category. The port's pioneering technology generated great enthusiasm among Japanese investors and contributed greatly to raising Brazil's international reputation.

### Ongoing investments made by Vale

There are also ongoing investments by Vale to modernize the Port of Tubarão, to increase competitive efficiency and reduce environmental damage. It is planned to implement 156 thousand m<sup>2</sup> of paving and drainage system, in addition to closing 40 km of ore conveyor belts. The package provides for investments of around R\$ 2.4 billion in the port complex located in the capital, in addition to another R\$ 1.6 billion in environmental, rail and pellet investments, which should generate 1,500 jobs by 2025.

Source: VALE.

### General Information

<b>Entity</b>	<b>Vale do Rio Doce Company</b>
<b>Types of cargo handled</b>	Iron ore, Soybeans, soybean meal, corn, urea, coal, fertilizers, petroleum derivatives,

### Capacity

<b>Cargo moved</b>	<b>56 millions of tons</b>
<b>Channel depth</b>	<b>18 m</b>
<b>Wharf</b>	<b>357.7 m</b>
<b>Terminals</b>	<b>4 terminals</b>
<b>Berths</b>	<b>4 berths</b>
<b>Total area</b>	<b>18 km<sup>2</sup></b>

Notes: Data from 2020.

# Main Projects Portfolio



## Main Projects Portfolio

Federal Investments – In 2021, the waterway modal has presented a relative share much higher than its historical average.

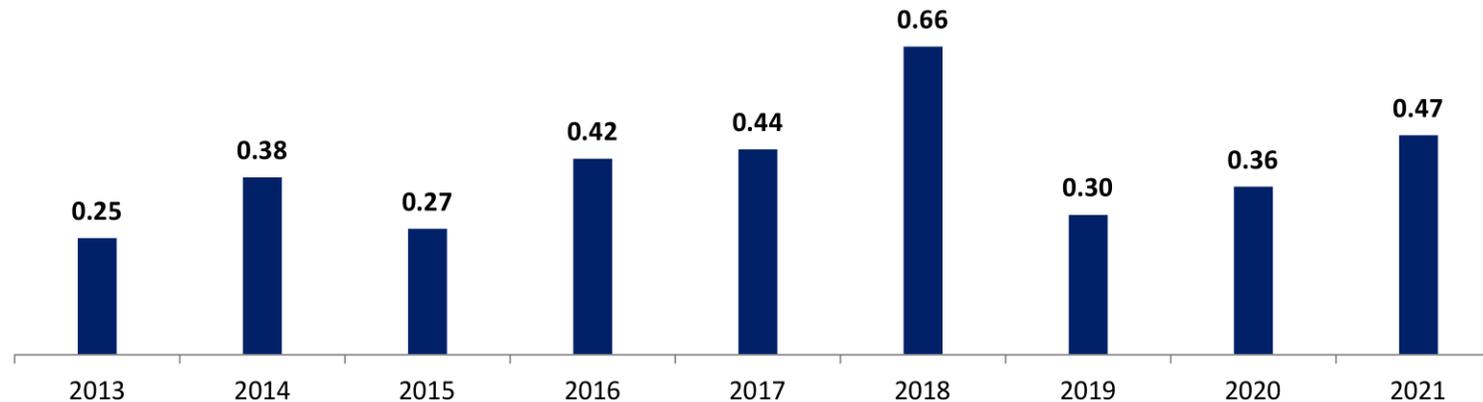
Between 2001 and 2021, approximately R\$13.56 billion were invested in waterway logistics.

In 2021, 11.8% of the federal investments in transportation were in waterway logistics, around R\$ 0.5 billion was invested.

According to Minfra, the port concessions planned until 2023 should leverage R\$4.65 billions in investments, considering 10 terminal leases and 3 privatizations. Of the 10 terminal leases, 2 are expected to be completed yet this year, and 8 are scheduled for 2023. Also, the 3 privatizations are scheduled to finish in 2023.

### Historical federal government investments in the waterway sector

Approximate R\$ Billions



Source: CNT/ PPI (consultation in 11/2022).

## Main Projects Portfolio

### Dock Companies – Investment history.

Docks, in general, are mixed capital companies of public administration, and may operate in several states. There are 8 Dock Companies in Brazil.

Investments made by the Dock Companies (BRL millions)										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Ceará Dock Company (CDC)	33.45	132.90	160.64	102.88	42.80	10.49	6.09	4.65	3.90	0.30
Espírito Santo Dock Company (CODESA)	31.20	155.61	114.38	70.65	93.14	61.85	47.30	47.60	15.99	3.69
Bahia's State Dock Company (CODEBA)	3.38	30.01	59.68	36.16	20.22	10.30	10.20	4.75	3.79	3.68
São Paulo's State Dock Company (CODESP)	61.83	189.74	291.83	426.76	295.76	147.98	103.51	21.74	6.56	1.69
Maranhão Dock Company (CODOMAR)	0.01	0.05	0.00	0.00	0.00	0.07	0.03	0.00	0.00	0.00
Pará Dock Company (CDP)	148.15	70.66	13.19	33.54	19.65	5.96	3.65	2.49	6.55	6.92
Rio de Janeiro Dock Company (CDRJ)	10.99	8.04	30.23	20.56	38.86	40.28	31.39	29.74	20.54	3.12
Rio Grande do Norte Dock Company (CODERN)	210.66	57.16	56.74	50.74	7.35	23.44	1.04	2.75	7.00	6.91
<b>Total</b>	<b>499.66</b>	<b>644.18</b>	<b>726.69</b>	<b>740.68</b>	<b>517.78</b>	<b>300.36</b>	<b>203.21</b>	<b>113.73</b>	<b>64.33</b>	<b>26.30</b>

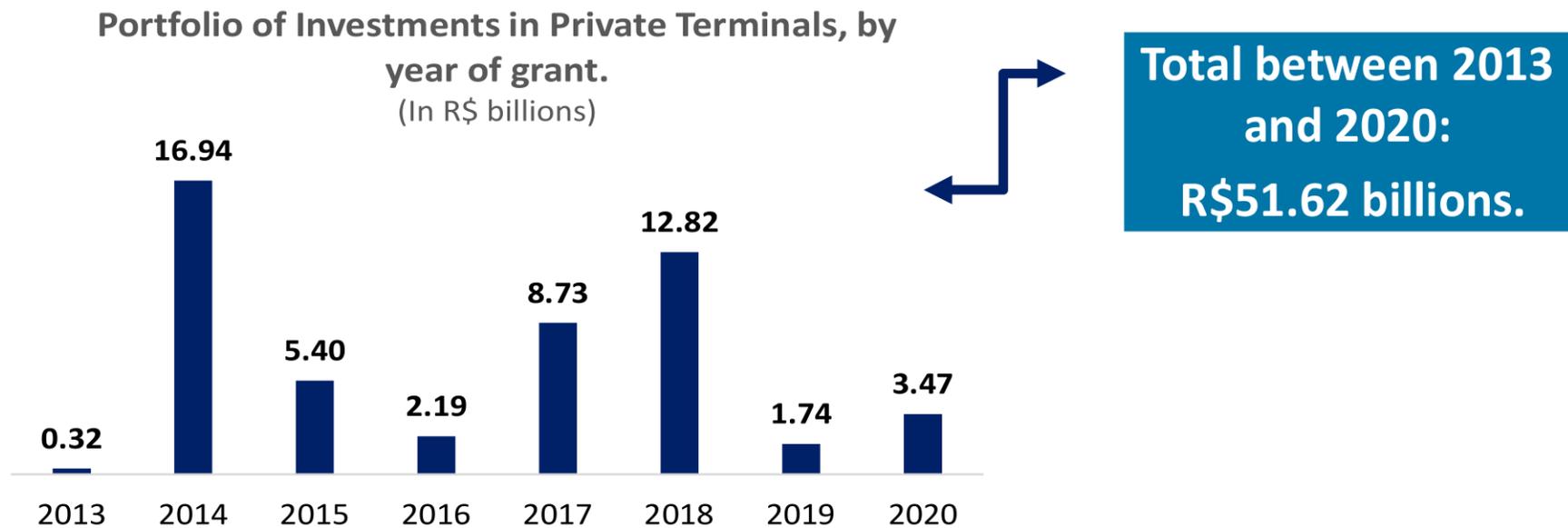
Note: The values are updated for december 2020 by the inflation.

Source: CNT.

## Main Projects Portfolio

TUPs – Investment history.

The data shows that private terminal grants that took place between 2013 and 2020 have a backlog of investments of R\$51.62 billion. Only grants that took place in 2020 have an investment portfolio of R\$3.47 billion. The year with the highest contracting of investments through grants was 2014: R\$ 16.94 billion.



Source: CNT.



## Main Projects Portfolio

PPI Investments – Completed Projects - Waterway projects (terminal leases and Codesa's privatization) carried out in the PPI's framework were over R\$4.5 billion in CAPEX.

Waterway projects carried out in the PPI's framework						
Finalized Project	Area (th m <sup>2</sup> )	Capex (R\$ millions)	Deadline (years)	Notice	Auction	Model
Rio de Janeiro's Port Wheat Terminal	13.5	93.1	25	n.a	20/04/2017	Lease
Santarém's Port Fuel Terminal (STM04)	28.8	18.2	25	n.a	23/07/2017	Lease
Santarém's Fuel Terminal (STM05)	35.1	50	25	n.a	23/07/2017	Lease
Miramar's Port LPG Terminals (BL 05 MIR 01)	59.2	116.5	20	22/02/2018	06/04/2018	CO
Vitória's Port Liquid Bulk Terminal	74	165	25	30/11/2018	22/03/2019	Lease
Liquid Bulk in the Cabedelo's Port	57.1	71.4	25	30/11/2018	23/03/2019	Lease
Port Terminals for Liquid Bulk in the Belém's Port	203.5	306	20	20/12/2018	05/04/2019	Lease
Port Terminals for Liquid Bulk in the Vila do Conde's Port	47	126.3	25	20/12/2018	05/04/2019	Lease
Itaqui's Port General Cargo Terminal	53.5	215	20	06/04/2018	27/07/2018	Lease
Itaqui's Port Terminal (IQ03)	25.4	42.3	25	18/12/2020	09/04/2021	Lease
Itaqui's Port Terminal (IQ11)	28.8	18.2	25	n.a	23/07/2017	Lease
Itaqui's Port Terminal (IQ12)	35.1	50	25	n.a	23/07/2017	Lease
Itaqui's Port Terminal (IQ13)	59.2	116.5	20	22/02/2018	06/04/2018	Lease
Pelota's Port General Cargo Terminal (PEL01)	74	165	25	30/11/2018	22/03/2019	Lease
Santana's Port Terminal	203.5	306	20	20/12/2018	05/04/2019	Lease
Mucuripe's Port Terminal	47	126.3	25	20/12/2018	05/04/2019	Lease

Waterway projects carried out in the PPI's framework						
Finalized Project	Area (th m <sup>2</sup> )	Capex (R\$ millions)	Deadline (years)	Notice	Auction	Model
Miramar's Port LPG Terminals (BEL 06)	35.5	51.5	20	06/08/2018	28/09/2018	CO
Liquid Bulk in the Santos's Port (STS 13A)	38.4	111.4	25	12/04/2019	13/08/2019	Lease
Liquid Bulk in the Santos's Port (STS 20)	29.3	219.5	25	12/04/2019	13/08/2019	Lease
Paranaguá's Port Cellulose Terminal	27.5	87	25	12/04/2019	13/08/2019	Lease
Liquid Bulk in the Santos's Port (STS 14)	44.5	186.9	25	08/05/2020	28/08/2020	Lease
Liquid Bulk in the Santos's Port (STS 14A)	34.8	193	25	08/05/2020	28/08/2020	Lease
Liquid Bulk in the Aratus's Port (ATU 12)	154.9	393.5	25	03/09/2020	18/12/2020	Lease
Liquid Bulk in the Aratus's Port (ATU 18)	51.6	120	15	03/09/2020	18/12/2020	Lease
Maceió Port	7.9	12.8	25	03/09/2020	18/12/2020	Lease
Liquid Bulk in the Paranaguá's Port (PAR12)	154.9	22.2	25	03/09/2020	18/12/2020	Lease
Maceió's Port Terminal (MAC13)	54.2	198.2	25	15/06/2018	28/09/2018	Lease
Santos's Port Terminal (STS08A)	54.4	198.4	27	15/06/2018	28/09/2018	Lease
Areia Branca's Salt Terminal	54.5	198.5	28	15/06/2018	28/09/2018	Lease
Suape's Port Solid Bulk Terminal	54.8	198.8	31	15/06/2018	28/09/2018	Lease
Codesa - Privatization	54.9	198.9	32	15/06/2018	28/09/2018	Privatization
Salvador's Organized Port Terminal	53.5	215	20	06/04/2018	27/07/2018	Lease
<b>Total</b>	<b>1,905.3</b>	<b>4,591.4</b>				



## Main Projects Portfolio

PPI Investments – Completed Projects – Waterway projects carried out in the PPI's framework, in the extension model, were over R\$1.6 billion in CAPEX.

Waterway projects carried out in the PPI's framework (extension model)					
Finalized Project	Area (th m <sup>2</sup> )	Capex (R\$ millions)	Deadline (years)	Contract amendment signed	Model
Nitport Port Services S.A	n.a	23.7	n.a	25/07/2017	P
Nitshore Port Services S.A	n.a	40.2	n.a	25/11/2017	P
Salvador's Container Terminal (Tecon)	n.a	715	25	16/11/2016	P
Vila do Conde's Container Terminal (Convicon)	n.a	129	10	16/11/2016	P
Itaqui Port Fertilizer Terminal (Copi)	n.a	79.7	20	14/12/2018	P
Paranaguá Port Fertilizer Terminal (Fospar)	n.a	134.5	25	16/11/2016	P
Santa Catarina's Port Terminal (Tesc)	n.a	138	25	27/07/2017	P
Itaqui Port Chemical Terminal (Tequimar)	n.a	169	25	23/08/2017	P
Santos's XXXIX Terminal (Caramuru)	n.a	231.2	25	27/03/2018	P
<b>Total</b>	<b>n.a</b>	<b>1,660.3</b>			

Source: CNT/ PPI

Notes: P = Extension



## Main Projects Portfolio

Planned Investments until 2023 – Over R\$4.6 will still be invested.

The data below shows the projects that are yet to be completed by 2023, which are 10 terminal leases and 3 concessions, more than R\$4.6 billion will still be invested, showing great signs for the sector's development.

Waterway projects in progress and investments planned until 2023				
Project	Capex (R\$ millions)	Deadline (years)	Notice	Auction
Paranagua's Port Vegetable Bulk Terminal lease (PAR09)	492.5	35	1st quarter of 2022	4th quarter of 2022
Paranagua's Port Vegetable Bulk Terminal lease (PAR14)	1,180	35	2nd quarter of 2023	3rd quarter of 2023
Paranaguá Port Terminal lease (PAR32)	4.2	10	04/02/2022	30/03/2022
Paranaguá Port Terminal lease (PAR50)	338	25	3rd quarter of 2022	4th quarter of 2022
Santos's Port Terminal lease (STS08)	265.5	25	3rd quarter of 2022	4th quarter of 2022
Vila do Conde Port Terminal lease (VDC10)	423	25	4th quarter of 2022	1st quarter of 2023
Maceió's Port Terminal lease (MAC11)	219	25	4th quarter of 2022	4th quarter of 2022
Maceió's Port Terminal lease (MAC12)	9.3	25	4th quarter of 2022	4th quarter of 2022
Suape's Port Solid Bulk (Sugar) Terminal lease (SUA07)	60	25	1st quarter of 2022	3rd quarter of 2022
São Francisco do Sul's Port Bulk Terminal lease (TGSFS)	60	35	2nd quarter of 2023	3rd quarter of 2023
São Sebastião Organized Port - Concession	499.2	35	3rd quarter of 2022	4th quarter of 2022
Santos Port - Concession	20,300	35	4th quarter of 2022	1st quarter of 2023
Itajaí Port - Concession	2,800	35	4th quarter of 2022	2nd quarter of 2023
<b>Total</b>	<b>4,651.4</b>			

Source: CNT/ PPI.

## Main Projects Portfolio

SP – Santos Port – Projects in progress.

### The Concession of the Santos Port

The concession of operational areas in the Organized Port of Santos is a prerogative of the Ministry of Infrastructure (Minfra). As it is a property belonging to the Union, in order to be entitled to its exploitation, the person interested in installing a terminal in the Port of Santos must participate in a bidding process.

### The terminal lease of the Santos Port (STS08)

The STS 08 project – Liquid Bulk Terminal at the Port of SANTOS is a qualification for studies in the STS08 area, located in the Alemoa region in the Organized Port of Santos, which resulted in public consultation for the holding of two competitions bidding processes, the leases STS08 and STS08A.

#### Investments

- R\$1.38 billion = Minimum asset grant amount;
- The total amount of investments expected reaches R\$20.3 billion.

#### Progress

- Between September 28 and 29, Market Sounding gathered 23 potential investors to discuss the privatization model, as well as clarify doubts about the project.
- On 09/12 the ANTAQ approved the public concession process for the Port of Santos, The Minfra will receive the documentation authorized by the Agency which, in turn, will forward it to the TCU for due analysis.
- The project is due for the first quarter of 2023.

#### Investments

- The total amount of investments expected for the project are of R\$265.5 millions.

#### Progress

- The Liquid Bulk Terminal at the Port of SANTOS was qualified at the 11th PPI Board Meeting through the Resolution No. 87, of 11/19/2019.
- Antaq published the notices and annexes of the auctions for the lease of the STS 08 and STS 08A terminals on 11/14/2021. The competitions took place on November 11/19/2021.
- The project is now under review after a desert auction.

## Main Projects Portfolio

PR – Paranaguá Port – Projects in progress.

### The Vegetable Bulk Terminal lease of the Paranaguá Port (PAR09)

Terminal PAR09 will be used for the handling and storage of solid vegetable bulk. It is a brownfield area with approximately 24,016 m<sup>2</sup>, which will be granted to the private sector through a bidding process in the auction mode, whose selection criterion will be the highest grant value. The expected term for the lease is 35 years.

### The Vegetable Bulk Terminal lease of the Paranaguá Port (PAR14)

Leasing of a port terminal with an area of 49,841 m<sup>2</sup> dedicated to the handling and storage of soybeans, soybean meal, corn, sugar, wheat, malt and barley, mainly.

#### Investments

- R\$1.38 billion = Minimum asset grant amount;
- The total amount of investments expected reaches R\$492.6 millions.

#### Progress

- The project was qualified in the PPI through CPPI Resolution No. 172, of April 27, 2021, which gave rise to Decree No. 10,743, of July 8, 2021.
- The public hearing took place on 03/24/21.
- The auction will happen on December 14th.
- The project is due by the end of 2022.

#### Investments

- The total amount of investments expected for the project are R\$1.19 billion.

#### Progress

- The project was qualified in the PPI through CPPI Resolution No. 172, of April 27, 2021, which gave rise to Decree No. 10,743, of July 8, 2021.
- The public hearing took place on 10/27/22 and remained opened until 11/05/22.
- The notice is scheduled for the 2<sup>nd</sup> quarter of 2023, and the auction for the 3<sup>rd</sup> quarter of 2023, therefore, the project is due by the end of 2023.

## Main Projects Portfolio

PR – Paranaguá Port – Projects in progress.

### The Terminal lease of the Paranaguá Port (PAR32)

Terminal PAR32 will be dedicated to handling general cargo, with an emphasis on bagged sugar. The terminal has a brownfield area of 6,651 m<sup>2</sup>, which will be granted to the private sector by means of an auction, whose selection criterion will be the highest grant amount.

### The Terminal lease of the Paranaguá Port (PAR50)

It is a brownfield terminal with 85,392 m<sup>2</sup> dedicated to the handling, storage and distribution of Liquid Bulk. The project established for PAR50 has a road connection that integrates it with the entire south and southeast region, and a pipeline connection with the public pier, and aims to serve the storage and movement of liquid bulk.

#### Investments

- The lease provides for investments of R\$ 4.2 million, which will be used to improve warehouses and also for the purchase of new equipment.

#### Progress

- The lease of the Port Terminal PAR32 was qualified at the 11th Meeting of the PPI Board, through Resolution No. 87, of November 19, 2019, later converted into Decree No. 10,390, of June 5, 2020;
- The public hearing happened on 02/24/21;
- The notice took place on 02/04/22;
- The auction was held on 03/30/2022. The terminal was acquired by FTS Shareholdings;
- The project is finishing the contract signing phase, due by the end of this year.

#### Investments

- The total amount of investments expected for the project are of R\$333.2 millions.

#### Progress

- The PAR-50 Project was qualified at the 12th Meeting of the PPI Council, through Resolution No. 107, of 02/19/2020;
- TCU approved the studies on 12/03/2021;
- The notice will be published, and the auction will happen by the end of 2022;
- The Project is due by the first quarter of 2023.

## Main Projects Portfolio

SC – São Francisco do Sul Port – Projects in progress.



### The Bulk Terminal lease of the São Francisco do Sul Port (TGSFS)

Leasing of the terminal for handling and storing solid vegetable bulk in the Organized Port of São Francisco do Sul. TGSFS already has facilities in the area, which can be used by the future tenant, who will expand the terminal's storage capacity by 60,000 tons, for handling soybeans and corn.

#### Investments

- The total amount of investments expected for the project are R\$60 millions.

#### Progress

- The Project is under the phase of Technical, Economic and Environmental Feasibility Study (Evtea) for the lease;
- The public hearing is scheduled for the 1st quarter of 2023;
- The notice is scheduled for the 2nd quarter of 2023;
- The auction is scheduled for the 3rd quarter of 2023;
- The project is due by the end of 2023.

## Main Projects Portfolio

TUPS - Projects about to start. – TUPs with construction about to start, which are within the area of operation of Japanese companies.

New TUPs planned	
Project	Authorized Company
Imbituba's Ventures and Participations Terminal	Imbituba's Ventures and Participations Terminal S.A
Santa Catarina's Bulk Terminal (TGSC)	Santa Catarina's Bulk Terminal (TGSC) S.A
Pontal do Paraná Port	Pontal do Paraná Port S.A
Guará's Infrastructure Port (SPE)	Guará's Infrastructure Port (SPE) S.A
Logistic Port Terminal (TPL)	Logistic Port Terminal (TPL) S.A
SUBSEA 7 - Niterói Base	Subsea 7 Brasil Services LTDA
Açu's Regasification Terminal	UTE GNA/ Power Generation S.A
Central Port Terminal	Central Port Industrial Complex S.A
Itaoca Offshore	Itaoca Maritime Terminal S.A
Terminal Industrial IMETAME	IMETAME Logistica LTDA
Norte Capixaba's Waterway Terminal	Petrobras Transport S.A - (Transpetro)
São Mateus's Port Center (CPSM) - Petrocity	Petrocity Ports S.A
TUP Mearim	Mearim Consortium - North Port
São Luis's Port Terminal	WPR São Luis Management of Ports and Terminals LTDA
Alcântara's Port Terminal	GPM - Pará Multimodal Grain LTDA
Barcarena's Port Terminal	Buritirama Mining S.A

New TUPs planned	
Project	Authorized Company
Malato's Terminal	Louis Dreyfus Company Brasil S.A
TLA Abaetetuba	TLA Amazônia's Liquid Terminal LTDA
Cianport - Santana's Island TUP	North of Navigations and Ports Company (CIANPORT)
Solid Bulk Terminal (TGA)	Amapá's Logistics Platform LTDA
ATEM Santarém	Atem's Oil Distributor S.A
Sabbá Petroleum ( BSMI)	Sabbá Petroleum ( BSMI) S.A
Urucurituba's Port Terminal	Brasil Potassium LTDA
Novo Remanso's Port Terminal	Novo Remanso's Port Terminal S.A
LAJES Logistic	LAJES Logistic S.A
Alemoa's Port Terminal	Alemoa S.A
TUP EBT - Santorini	Brazilian Company of Terminals and General Warehouses LTDA
Brasil Intermodal Santos's Terminal - BRITES	Brites's Port Terminal LTDA (TPB)
Paraná's Submarine Construction Park	Subsea 7 Brasil Services LTDA
Novo Porto	Novo Porto Multiloading and Logistics Port Terminal LTDA
Mar Azul	Mar Azul Logistics, Storage and Transport Terminal S.A.
Babitonga's Grain Terminal	TGB - Babitonga's Grain Terminal

## Main Projects Portfolio

Government Investments – Emphasis for three new TUPs greenfield projects that are on the selected ports area (Santos and Paranaguá).

As listed in the previous slide, the federal government gave permission for the construction of new Private Use Terminals (TUPs) in the country. If the projects materialize, they should generate billions in new investments.

The contracts are for the construction of new terminals in ports that will help make Brazil more competitive in international trade.

The projects will expand the offer of port services and the storage capacity of solid, liquid and gaseous bulk, in addition to general and containerized cargo, informed the Ministry of Infrastructure.

Therefore, next, we will get into more details about the projects that will be built within 2 of the selected ports, the Santos and the Paranaguá Port:

- Of the authorizations granted, two are in the Port of Santos. One of them refers to the Logistics Port Terminal - TPL, Triunfo Participações e Investimentos (ICC). The group, which will also depend on finding a partner to make the billion-dollar project viable, has not yet defined the vocation of the terminal. The company was granted approval to explore cargos such as solid bulk, liquids and general cargo. The investments needed for the project are estimated at R\$ 2.827 billion.
- Another major project authorized in the port is the TUP EBT - Santorini, from Ageo (Empresa Brasileira de Terminais e Armazéns Gerais), which already operates liquid bulk terminals in the port. The new development would be a retro port terminal, intended for solid, liquid bulk and general cargo. The estimated investment is R\$ 3.66 billion.

### Port of Santos

- Another project on the list is the Infrastructure Terminal of Guará Port, in Paranaguá (PR). It is a large enterprise, with a forecast of R\$ 3.2 billion in contribution, destined to the movement of solid and liquid bulk.

Porto Guará is focused on serving agribusiness logistics focusing mainly on Asian markets that have already announced the need to import 30% more grains by 2030. It was thought to function as a complementary terminal to the Port of Paranaguá, outside the urban area of the municipality, allowing the continuous growth of the Paraná agribusiness corridor and rescuing cargo diverted from the state to next door ports.

### Port of Paranaguá

# Financing Sources

# Financing Sources

BNDES – Brazilian Development Bank.



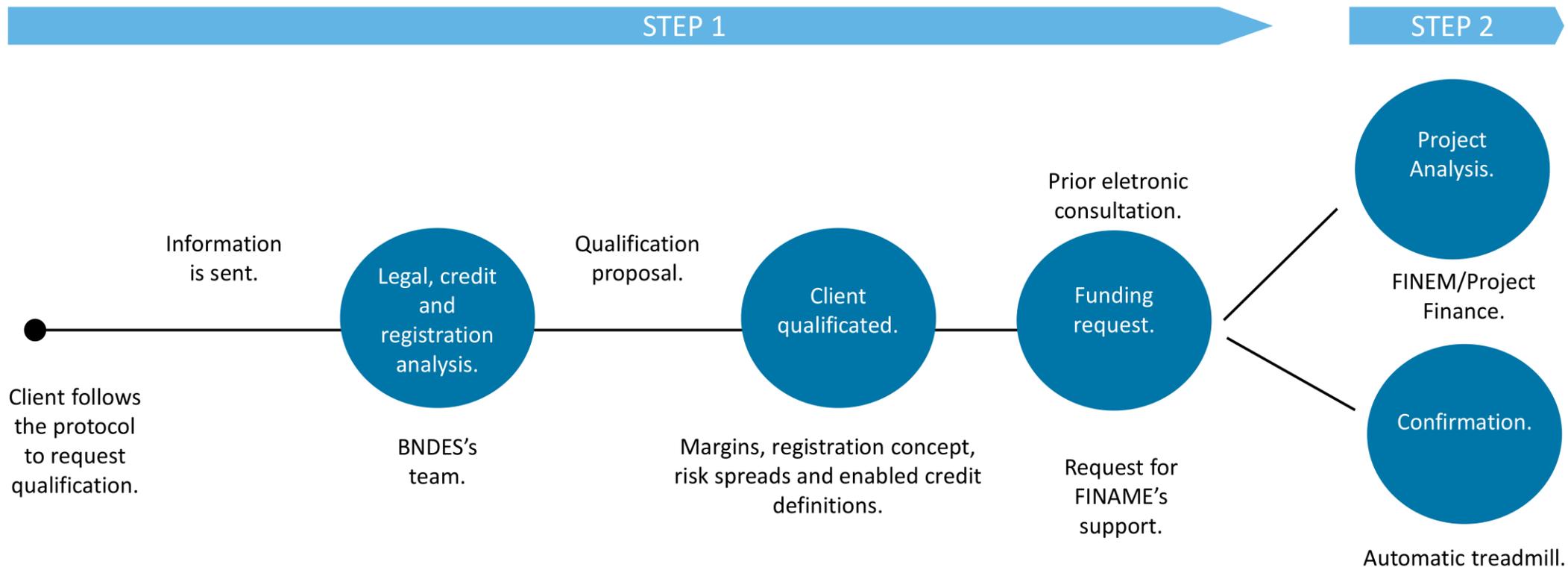
The capital structure of Brazilian ports is an extremely relevant topic for the transport economy. The financing sources adopted have a direct impact on the management of these companies, which in turn is related to the operational efficiency in charge of meeting the growing demands in Brazil. Currently, the institution responsible for releasing the funds is the Brazilian Development Bank (BNDES), which, like any financial institution, has some preconditions for loan applications.

<p><b>Clients</b></p>	<p>Companies headquarter and managed in the country, under national or foreign control, and legal entities governed by the public law.</p>	
<p><b>Minimun amount and financing share</b></p>	<p><b>Machines and Equipment:</b>  <b>Participation:</b> up to 80% of investments;  <b>Deadline:</b> up to 16 Years, with up to 3 years of grace period.</p>	<p><b>Infrastructure:</b>  <b>Participation:</b> 100% of financeable items, limite to 80% of total investment;  <b>Deadline:</b> up to 24 Years, with the grace period being extended up to 6 months after the start of operations.</p>
<p><b>Financial Conditions</b></p>	<p><b>Machines and Equipment:</b>  Financial cost benchmark (Dollar, Selic or TLP) + BNDES’s Fee + Risk Rate  There is no incidence of IOS  Minimun amount: R\$10 million.</p>	<p><b>Infrastructure:</b>  Financial cost benchmark (Dollar, Selic or TLP) + BNDES’s Fee + Risk Rate  Minimum amount: R\$10 million.</p>

Source: BNDES.

# Financing Sources

BNDES – Brazilian Development Bank – Credit granting flow.



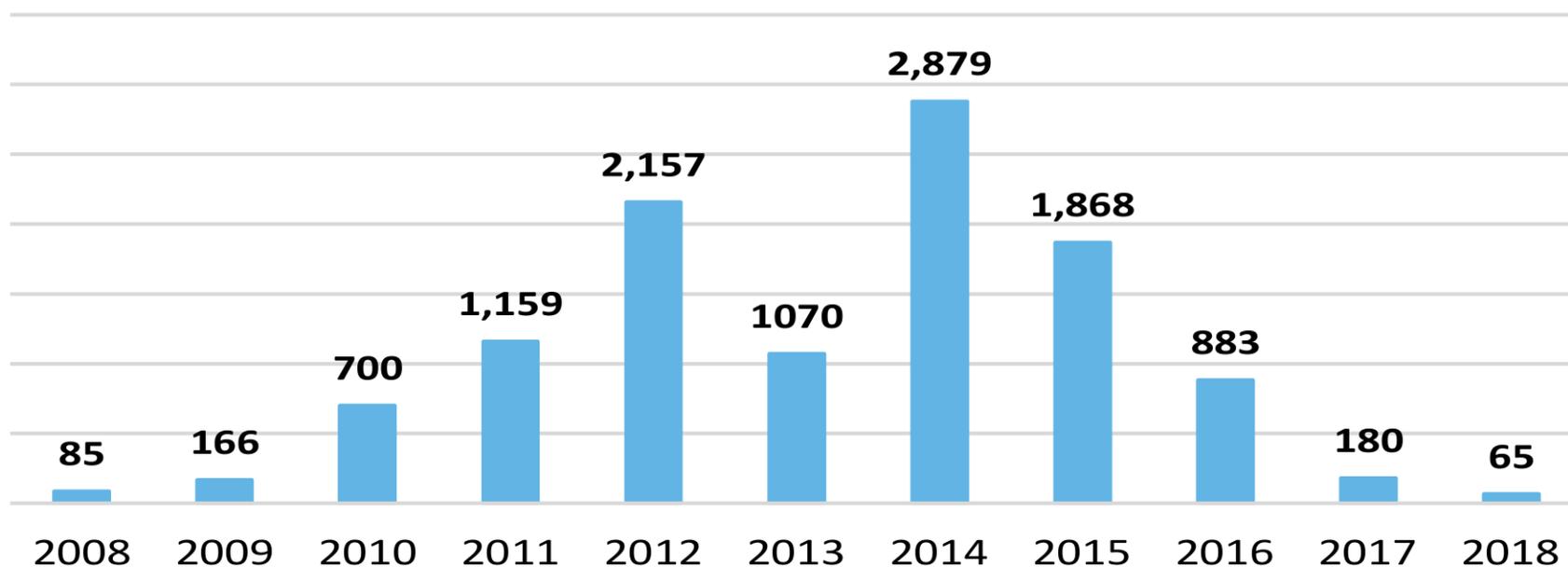
Source: BNDES.

## Financing Sources

BNDES – Brazilian Development Bank.– Support history.



### Support in Port Terminals (in BRL R\$)



Source: BNDES.

## Financing Sources

Other aspects – Government incentives.



### Tax Incentives and Financing Lines.

To stimulate and attract investments, the Federal Government created tax incentives for the port sector, among them, the exemption of the payment daughter; debentures of infrastructure; Tax Regime for Incentive to Modernization and Expansion of the Structure Port (REPORTO); accelerated depreciation incentivized and discounted contribution to the PIS/Pasep and Cofins; and Special Incentive for Infrastructure Development (REIDI).

As for the financing lines, the government provides conditions for financial support from the Brazilian Development Bank (BNDES) to public auctions and infrastructure concessions; financing for infrastructure expansion and modernization logic through BNDES Finem; and project financing through the BNDES Project Finance.

Source: BNDES.

# Final Considerations

# Final Considerations

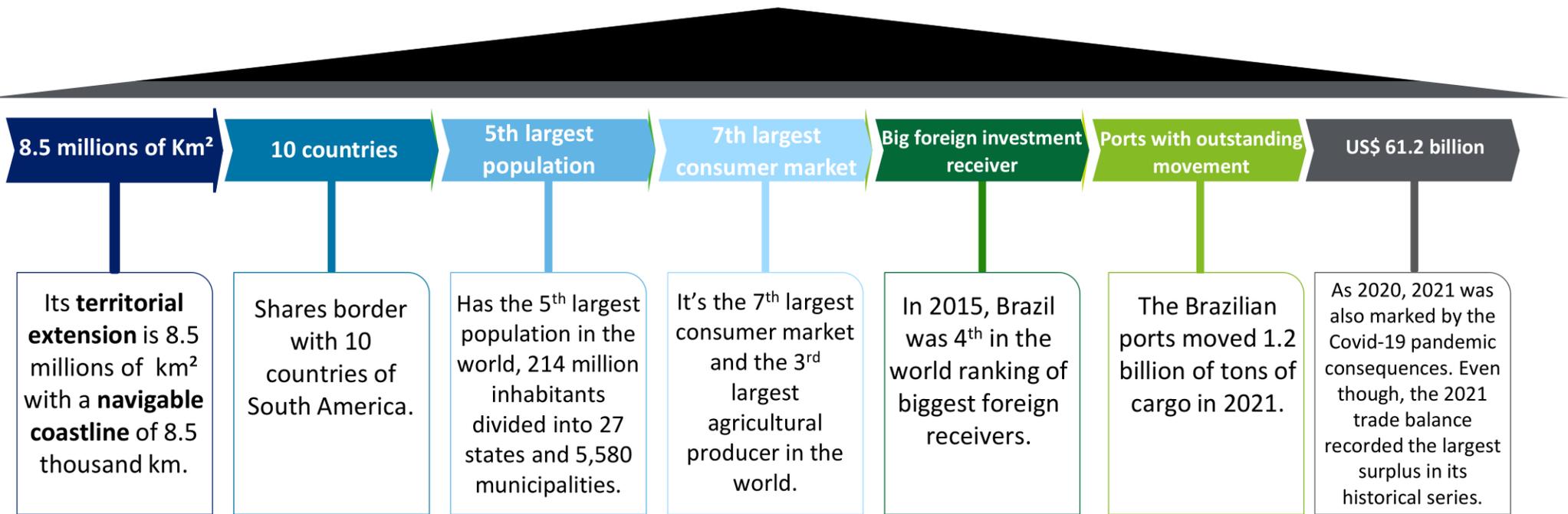
## Market Overview – Main data.



<b>Movement (2020 in tons)</b>	<ul style="list-style-type: none"><li>• Selected Ports: 525 millions</li><li>• The port sector: 1.2 billion (The port sector moved 1.2 billion tons in 2021, with a 4.8% growth compared to 2020.)</li></ul>	<b>Market Competition</b>	The market has over 1,400 companies. The largest in the sector are public companies.
<b>Planned Investments</b>	<ul style="list-style-type: none"><li>• The selected Ports: about R\$34 billion;</li><li>• The Port Sector in the PPI framework: R\$ 4.6 billion until 2023.</li></ul>	<b>Legal Context</b>	The Laws are aimed at attracting private capital to the sector, making the management of ports more flexible and reducing bureaucracy, allowing the modernization and expansion of structures, as well as increasing competition and cargo movement.
<b>Number of projects in progress</b>	<ul style="list-style-type: none"><li>• PPI framework selected ports: 6 terminal leases and 1 concession</li><li>• PPI framework total: 10 terminal leases and 3 concessions.</li></ul>	<b>Growth Potential</b>	High. The scenario is market by investment incentives, which will make it possible to reduce gaps in the sector.

# Final Considerations

Market Overview – Reasons to invest in Brazil.



Source: GOV.



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