



Ministry of Foreign Affairs

# MARKET SCAN OPPORTUNITIES PORT AND CORRIDOR DEVELOPMENT VALPARAÍSO REGION, CHILE

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**MARKET SCAN  
OPPORTUNITIES PORT AND CORRIDOR DEVELOPMENT  
VALPARAÍSO REGION, CHILE**



Final Report submitted to:

**EMBASSY OF THE KINGDOM OF THE NETHERLANDS IN CHILE**

Prepared by:

**IKONS ATN**

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## EXECUTIVE SUMMARY

This report presents the research carried out by the consulting team in relation to business opportunities that the Port and Corridor Development of the Valparaíso Region can generate for Dutch Companies in different areas.

The port logistics corridor of the Valparaíso Region has two headwaters: the Port of Valparaíso and the Port of San Antonio, the two busiest public ports in Chile, the first managed by the Valparaíso Port Company (*Empresa Portuaria Valparaíso - EPV*) and the second by the San Antonio Port Company (*Empresa Portuaria San Antonio - EPSA*). Both companies are state-owned companies.

The expansion of these ports considered for the coming years by the Government of Chile and the respective Public Port Companies (PPC), will generate an important business opportunity for national and foreign companies in the fields of physical and technological infrastructure, in the port, railway and highway, as well as in its associated markets (engineering, consulting, dredging, construction and supply of equipment and technology, financing, education and training, port and railway operations, among other businesses). The Port of San Antonio will expand its capacity from 2.5 million TEU to 8.5 million TEU in the coming 20 years, and the Port of Valparaíso will expand its capacity from 1.2 million TEU to 2.2 million TEU in the coming 10 years and, eventually, to 4.4 million if Yolanda Terminal 3 were also developed next.

In said cases, the PPC have in their portfolios of investments a series of development projects related both to the expansion of their physical capacities (port infrastructure and related facilities) and to the modernization of their operation, particularly with regard to improvements and technological integration with the rest of the links in the logistics chain and better coordination of the public and private actors that participate in it.

These port expansion plans and improvement of the general management of the ports are in line with the policies promoted by the sectoral authorities aimed at optimizing the management of the logistics chain and, with this, essentially, improving the competitiveness of Chilean foreign trade, reducing the negative externalities generated by the traffic of imported and exported goods by trucks, especially around the ports in urban areas and on interurban roads.

The same boost in business opportunities should occur with the railway projects that the State Railways Company (*Empresa de los Ferrocarriles del Estado – EFE*) plans to carry out and which seek to increase the participation of the railroad in cargo transportation between these ports and Santiago.

Additionally, the Ministry of Public Works (*MOP*) must call to the bidding processes for the new concession for Route 78, which connects Santiago with San Antonio, and the new concession for Route 68, which connects Santiago with Valparaíso. Although the characteristics of the new road concessions must consider the context of port developments, the truth is that the *MOP* will carry out these processes regardless of what *EPSA*, *EPV* and *EFE* define, since there is a maximum term to award new ones contracts that are determined by the end of the current concessions which are very close.

In this way, the key public projects identified that will trigger a series of business opportunities in the port, rail and road markets are those that are summarized in the following table:

TABLE: KEY PUBLIC PROJECTS ASSOCIATED WITH THE PORT EXPANSION OF THE VALPARAÍSO REGION

Project	Description	Estimated execution schedule	Total Investment (€ Million)
Outer Port of San Antonio (Puerto Exterior – PE) San Antonio Port Company	<p>Development of a new port adjacent to the current Port of San Antonio, also called "Large Scale Port" (Puerto Gran Escala – PGE) which includes the following works:</p> <ul style="list-style-type: none"> <li>• Construction of preparatory works, Breakwaters and Dredging (€1,000 million)</li> <li>• Concession of Sea Side Port Terminal for 30 years term (€1,000 million)</li> <li>• Concession of Land Side Port Terminal for a 30 year term (€1,000 million)</li> </ul>	<p>Bidding Process: 2021 Execution of works: 2022-2030</p> <p>Bidding Process: 2028-2029 Execution of works: 2029-2030</p> <p>Bidding Process: 2035-2036 Execution of works: 2037-2040</p>	€3,000
Port Community System San Antonio (PCS) San Antonio Port Company	The system aims to collect data on the operation of the logistics chains that operate with Port of San Antonio and make it available to its users	Bidding process: First semester 2021	€3.5 including operational costs, for a 6-year contract
Platform for trucks parking outside the port area, San Antonio San Antonio Port Company	Construction and operation of a trucks parking platform outside the port area that provides parking service waiting for trucks heading to Puerto San Antonio, either to deliver export cargo or to remove import cargo. Its main function will be to regulate the frequency of the trucks, in order to optimize the operation of the road access system to the port.	Bidding process: Second semester 2021	€34.0
Terminal 2 short term concession of Valparaíso Port Valparaíso Port Company	Valparaíso Port Company will grant to Concessionaire an exclusive concession to equip, operate, maintain and exploit the Terminal 2, including the right to charge tariffs for services provided at the terminal, subject to Concession Contract	Bidding Process: Last semester 2021-first semester 2022	€10.0
Terminal 2 long term concession of Valparaíso Port Valparaíso Port Company	<p>Valparaíso Port Company will grant to Concessionaire an exclusive concession to equip, operate, maintain and exploit the Terminal 2, including the right to charge tariffs for services provided at the terminal, subject to Concession Contract.</p> <p>As defined, the concession would include the obligation to build a new 785m long pier and its 12.1 hectare back-up yard, including the corresponding equipment</p>	Bidding process: 2028 as defined	€ 420.0 (Definition Pending) for a 30-year term

Project	Description	Estimated execution schedule	Total Investment (€ Million)
Port Community System Valparaíso (PCS) Valparaíso Port Company	Implementation of a logistics model for the synchronization of document, vehicles and cargo flows between ZEAL (cargo truck coordination center) and the port.	<ul style="list-style-type: none"> <li>Terms of Reference available: last quarter 2020</li> <li>Bid award date: December 2020 – March 2021</li> <li>Deadline for implementation: July 2021</li> </ul>	€1.7 per year for a 5-year term
Santiago – San Antonio Freight Rail Corridor. State Railways Company	Development of the Freight Rail Corridor Santiago - San Antonio, which includes the following works: <ul style="list-style-type: none"> <li>Santiago – Barrancas Railways Corridor and Barrancas Intermodal Terminal (€ 62 Million)</li> <li>Santiago – San Antonio (Large Scale Port) Railways Corridor and Modal Exchange Center (CIM), Stage 1. (€190 Million)</li> <li>Santiago – San Antonio (Large Scale Port) Railways Corridor and Modal Exchange Center (CIM), Stage 2 (€760 million)</li> </ul>	Bidding Process: second semester of 2020 Execution of works: 2021-2022  Bidding Process: 2024 Execution of works: 2025-2030  Bidding Process: 2034 Execution of works: 2035-2040	€1,012
Santiago - San Antonio Highway Concession, Route 78 Ministry of Public Works	Improvement of the current route that connects Santiago with the Port of San Antonio, in addition to its extension to third lanes in some sections. This project corresponds to a new concession that replaces the current highway concession.	Bidding Process: second semester of 2020 Execution of works: 2023-2026	€453
Santiago - Valparaíso Highway Concession, Route 68 Ministry of Public Works	Improvement of the current route that connects Santiago with the Port of Valparaíso, in addition to its extension to third lanes in some sections. Construction of two new tunnels in Lo Prado and Zapata. This project corresponds to a new concession that replaces the current highway concession.	Bidding Process: second semester of 2021 Execution of works: 2025-2028	€670

These key public projects will have a multiplicative effect, since they will trigger business opportunities in different markets, including:

- i. The consulting market (Port planning, master planning of ports and hinterland connections, logistic studies, Terminal development and planning, engineering, bathymetry, topography, geotechnology, geology, environmental, technological, management, financial, metocean studies to water-levels and wave-height and morphology, cost-benefit analyses, supervision, etc.);
- ii. The infrastructure construction market (dredging, breakwaters, berthing fronts, support zones, logistics infrastructure, railway infrastructure, road infrastructure, etc.);
- iii. The market for maritime port services providers (tug-boats, Vessel Traffic Services, etc.)

- iv. The market for the supply of equipment and technology (equipment and port technology and logistics, Smartports, Port digitalization, Green ports);
- v. The market for the supply of railway-road equipment and technology;
- vi. The operators market (logistics-port, railway, highway);
- vii. The market for training and education (technical formation centers, terminal operation, automation/digitalization, etc.)
- viii. The capital and financial market (investment funds, financiers);
- ix. The insurance market and others.

Given that, according to the preliminary information provided by public actors, these key projects will be implemented through the following contracting modalities:

- Traditional Public Works Contract

In this contractual modality, a construction company builds the infrastructure and payment is made by the contracting institution. In this scheme, a substantial part of the contracting of works will be directly assumed by the contractor company awarded, who may subcontract part of the works to subcontractors and suppliers.

According to the preliminary information collected, the project that will be executed through this contractual modality is:

- Santiago – Barrancas Railways Corridor and Barrancas Intermodal Terminal

In this alternative of contractual modality, it is foreseen that these tenders are direct business opportunities for Dutch companies. There is also the possibility of being a supplier to the construction company that is awarded the project, in particular in the supply of railway devices (diverters, rails and other railway products).

- Service Provision Contract

In this contractual modality, a Service Provider Company provides services required by the client. In this scheme the services required will be directly assumed by the Service Provider Company awarded, who may subcontract part of the services to subcontractors.

According to the preliminary information collected, the projects that will be executed through this contractual modality are:

- Port Community System (PCS) San Antonio
- Port Community System (PCS) Valparaíso

According to the information provided by the Port Companies of San Antonio and Valparaíso, both PCS will be hired as Software as Service (SAS), so it is expected that these tenders are direct business opportunities for Dutch companies.



- **Financed Public Works Contract**

In this contractual modality, Public Port Companies can assign to a private company, through an international public bidding process, the development of an infrastructure project, that includes financing for its development, that is, the company that builds carries out all the investments that are required for the start-up of the project, once the work is completed the total of the contracted investments is settled. In this scheme a substantial part of the contracting of works will be directly assumed by the contractor company awarded, who may subcontract part of the works to subcontractors and suppliers.

According to the preliminary information collected about the projects that will be executed through this contractual modality, the Dutch companies may have business opportunities in the following areas:

- Breakwater Construction
- Preparatory works for the breakwater construction, which consider the construction and operation of a railroad for the transport of the material required during the construction of the breakwater.
- Dredging

Conforming to what has been reported by *EPSA*, it is possible that the aforementioned works, instead of a single contract, are contracted directly by *EPSA*, through different financed public works, or traditional public works contracts, particularly in the case of dredging works.

- **Concession Contract**

In this contractual modality, a private company designs, finances, builds and operates the infrastructure in a long-term scheme, through which the company has the right to charge tariff to the users of the infrastructure and its services, according to what is established in the bidding conditions. In this case a substantial part of the contracting of services and provisions associated with large infrastructure projects will be directly assumed by the private companies awarded these concessions, as well as by their main contractors, who may subcontract part of the works to subcontractors and suppliers.

According to the preliminary information collected, the projects that will be executed through this contractual modality are:

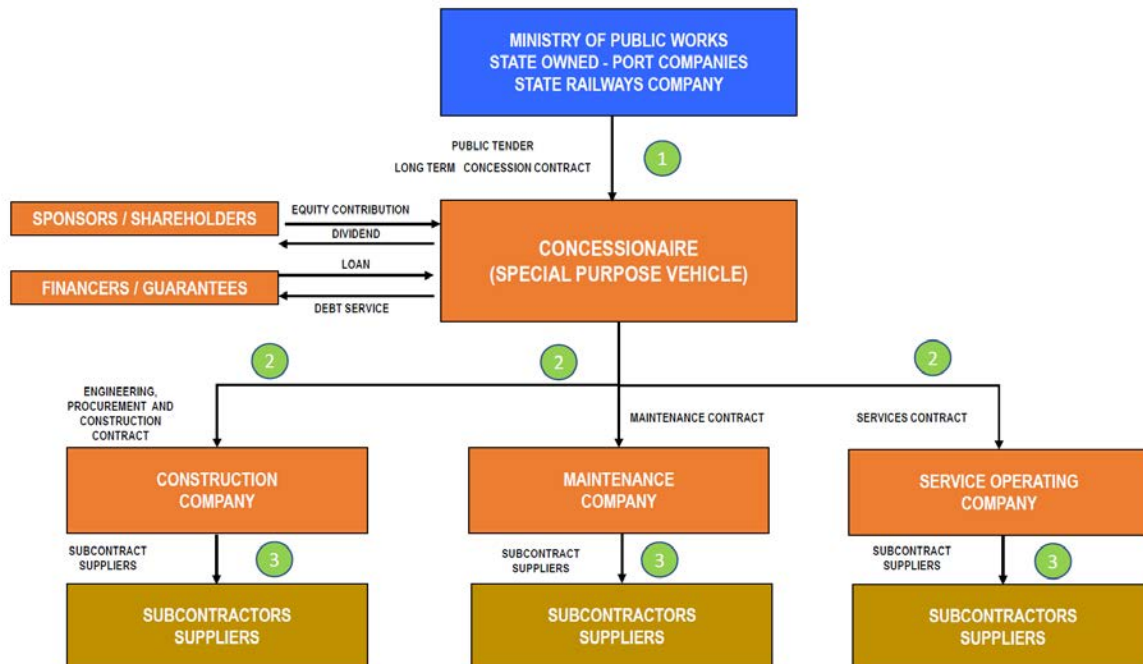
- Terminal 1 (Sea Side) of San Antonio Outer Port
- Terminal 2 (Land Side) of San Antonio Outer Port
- Platform for trucks parking outside the port area, Port San Antonio
- Terminal 2 Port of Valparaíso short term concession
- Terminal 2 Port of Valparaíso long term concession
- Santiago - San Antonio (Outer Port) Railways Corridor and Modal Exchange Center (CIM), Stage 1.
- Santiago - San Antonio (Outer Port) Railways Corridor and Modal Exchange Center (CIM), Stage 2.
- Santiago - San Antonio Highway Concession, Route 78

- Santiago - Valparaíso Highway Concession, Route 68

In this contractual modality it is possible to categorize different levels of investment and business opportunities for Dutch companies in various fields and with different sizes.

The following figure shows a diagram of this contractual modality and the different levels of business opportunities.

FIGURE: CONCESSION CONTRACT MODALITY SCHEME



Level 1: Corresponds to the main contract of the public entity with the SPV that will be formed by the successful bidders of the project. The companies sponsoring the project present themselves to the Bidding and are those that have control of the business at the following levels.

Level 2: Corresponds to the different private contracts that the SPV will sign. On the one hand, there are the credit agreements with the financing providers and, on the other, the contracts with the main contractors that will execute the works and operate the infrastructure. At this level, the contracts are with related companies of the SPV's shareholders.

Level 3: Corresponds to the private subcontracts that the main contractors will sign with different subcontractors and suppliers. This level is where the greatest number of business opportunities are envisioned for Dutch companies, in the different areas of specialties that the projects will require.

In relation to the bidding process for these projects, so far, most of them consider a technical qualification that aims to verify the bidders and their offer meet the minimum technical requirements, requirements that are based on compliance with technical, environmental and social regulations. In this

sense, the bidding process that has been used to date considers that the project must have a minimum technical and environmental standard and the final competition is based on price.<sup>1</sup>

According to the analysis carried out, it is expected that most of the key projects identified will be carried out through concessions, so it is highly recommended that Dutch companies initiate approaches with the actors that are identified as potential bidders of these projects, to present their products and services.

In this sense, the main actors associated with port expansion projects are the current concessionaires of *Terminal Molo Sur* and *Terminal Costanera*, of Port of San Antonio, controlled by *SAAM Portuario S.A.* and *DP World*, respectively, and the concessionaires of Terminal 1 and Terminal 2, of Port of Valparaíso, controlled by *Neltume Port S.A.* (Chilean Group Ultramar) and *Aleatica S.A.* of Spanish origin.

In the case of highways, the main player is the Italian-Spanish Group *Abertis*, the main shareholder of the two routes that link Santiago with the ports of San Antonio and Valparaíso.

In the case of rail corridors, this industry is considerably less developed than the previous ones, but it is most likely that in the future development process of this infrastructure the same companies will be present in the port and highway industries.

Undoubtedly, a strategy that would help greatly to make these potential businesses more likely is to participate in the main concession business, forming part of the SPV shareholders, which could be achieved through the incorporation of Dutch investment funds, experience in construction, operation or other, depending on the type of project.

In addition, the advantages of applying in Chile a public-private approach by the Kingdom of the Netherlands have been analyzed, that is, considering both State entities and private companies or knowledge institutions, for the purposes of knowledge transfer (K2K) and cooperation agreements between Governments (G2G). The goal of these G2G or K2K activities is to create amongst the Chilean stakeholders a better understanding of the benefits of or the need for certain concepts to be incorporated in the port and logistics development. This better understanding of these concepts will support the Dutch companies that wish to present their solutions to the Chilean market with solutions linked to those areas. The concepts or areas identified where this type of G2G or K2K activities would be beneficial are Sustainability, Logistics Corridor, Tender Procedures and Education, the latter in particular looking at the worldwide digitalization trends and the higher level of modernization foreseen for both the San Antonio and the Valparaíso port expansions.

This agenda with the Chilean public and knowledge sector, along with being of great benefit to the country, should be a way of introducing Dutch companies that are interested in coming to Chile to generate business in different fields.

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<sup>1</sup> In the bidding process that has been used to date no extra points are assigned in the evaluation for performing above the minimal standards set on these elements.

## 1. INTRODUCTION

The Chilean economy, with an estimated GDP of USD \$ 282.3 billion in 2019 (the USD \$ 298.2 billion in 2018 and the USD \$ 277.0 billion in 2017), is mainly oriented to the export of natural resources (mining, fishing, agriculture, and forestry) and to become a regional service platform. In turn, it relies heavily on the import of consumer goods, technology, industrial equipment, machinery, and vehicles. Therefore, the quality and efficiency of its port and logistics sectors are of vital importance.

Public-Private Partnership (PPP) schemes have been the priority and the most used mechanism for the development of the largest public infrastructure works in Chile since the 1990s. This modality of execution of public works and provision of their correlative services makes the subcontracting of related supplies and services the responsibility of the successful bidders of the PPP contracts.

In the case of the public works concession system, which began its application in 1993, it has included the construction and maintenance of public infrastructure with almost 100 contracts awarded, which involve investments of around 25 billion dollars. In the port area, PPP contracts began with the concession of the main state port terminals in 1999, accounting for 9 port concessions to date.

The objective of this report is to identify business opportunities in relation to the development and expansion of the ports of San Antonio and Valparaíso, as well as the corridor that connects them with the Metropolitan Region. This logistics-port corridor, located in the center of the country, is the busiest nationwide in terms of import and export of goods.

Within the foregoing, the most relevant project is in charge of the San Antonio Port Company, with the development of the called "Outer Port", which would allow expanding its cargo transfer capacity by 6 million TEU, adding 8 sites for the ships container. In turn, the Valparaíso Port Company aims to expand Terminal 2, to increase its capacity by 1.0 million TEU, adding two specialized sites for containers.

On the other hand, the logistics corridor is being developed to substantially increase the transport of goods by rail, as well as to improve road accesses in both ports.

The last part of the report indicates risks and challenges that the development of the identified projects presents, ending with comments and suggestions.

Information on the legal framework that regulates the development of the main projects mentioned is found in Annex 1 of this report.

## 2. DESCRIPTION OF THE PORT, RAIL AND ROAD SECTOR

### 2.1. THE PORT SECTOR

#### 2.1.1. General Characteristics

##### Geographical distribution

Chile is one of the longest countries in the world, as well as one of the narrowest. The continental territory has 4,300 km length and an average width of 180 km.

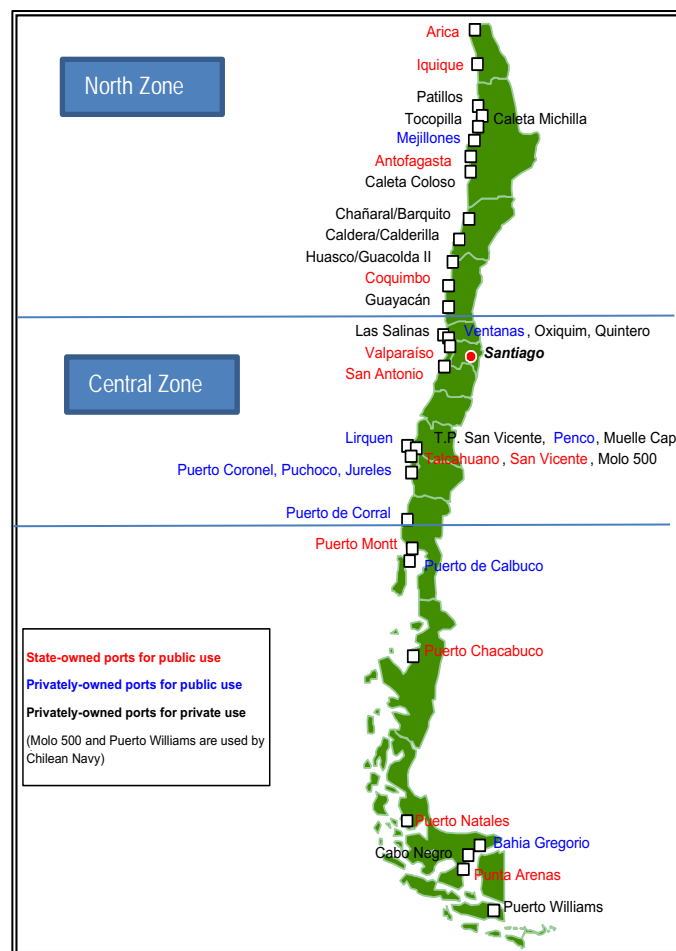
There are 36 main ports along Chilean coast that are distributed and specialized according to country economics activities. In 2019, they transferred 141 million of tons, in addition, there are 520 small and medium terminals, most of them built by Ministry of Public Works.

North zone ports are mainly related to mining companies, with the exception of Arica port linked to Bolivian foreign trade and Iquique to ZOFRI (duty free zone). In 2019, they transferred 55.0 million of tons, equivalent to 39% of the total cargo.

Central zone ports are linked to the economy of Santiago Metropolitan Area at north and forest and pulp production at south of the zone. Their main cargos are fuels and containers. In the north, the main ports are located in Valparaíso Region and are Ventanas-Quintero (fuels), Valparaíso (containers) and, San Antonio (containers). In the south, they are located at Biobío Region and are San Vicente (fuels and containers), and Lirquén and Coronel (containers). In 2019, they transferred 52% of total cargo.

The southern zone comprises the regions of Los Lagos, Aysén and Magallanes, with a large number of medium and small sized terminals, providing services to aquaculture, fisheries and forestry, as well as regional mobility. In 2019, these terminals moved 9% of the total cargo.

Main information about historic cargo traffic in the ports is found in Annex 2 of this report.



## Property of Ports

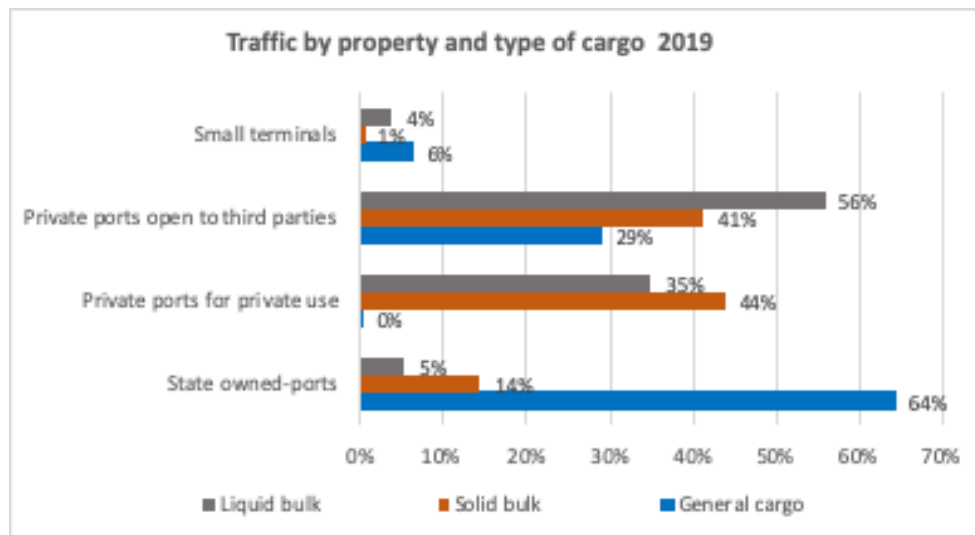
The main ports are categorized into 10 state owned-ports providing services to anyone who requires and 26 ports built and operated by private sector companies of which 15 are open to third parties and 11 provide services to their own operations.

In 2019, state owned-ports transferred 26% of the total cargo and private ports providing services to third parties moved 42%. The others private ports transferred 29%. The remaining 3% corresponds to smaller terminals located in the southern zone of the country.

As showed in Figure 1, state owned-ports accounted for 64% of general cargo in 2019, while private ports open to third parties moved 29%. Private ports as a whole transferred 85% of total solid bulk cargo (41% by those open to third parties and 44% for the others) and 91% of total liquid bulk cargo (56% by those open to third parties and 35% by the others).

The development of state ports is governed by Law 19,542 that modernizes the state own-port sector described in the legal and regulatory framework chapter of this report, while private ports have been built under Decree Law No. 340 of 1960 Concessions Law Maritime.

FIGURE 1: TRAFFIC BY PROPERTY AND TYPE OF CARGO 2019



Source: General Directorate of Maritime Territory and Merchant Marine (DIRECTEMAR)

## Overview of the Chile Central Area Ports

Valparaíso and San Antonio port's hinterland comprises mainly the Valparaíso, O'Higgins, Maule and Metropolitan Regions of Chile, an area also known as the Metropolitan Zone and which contains some of the most heavily populated and economically active areas of the country. Around 62 per cent of the Chilean population lives in this area according to 2017 census and 58 per cent of Chilean GDP was

generated here in 2019. In addition, including the city Santiago, the capital city, and Valparaíso, which is home to the Chilean Congress, the zone can be considered the political center of the country.

The ports of Valparaíso, San Antonio and Ventanas serve the demand generated by the Metropolitan Zone. Although servicing the whole of the Metropolitan Zone, each of the three ports is located in the Valparaíso Region, and as such the three are collectively known as the “Port System of the Valparaíso Region”.

Endowed with rich alluvial soils, a pleasant temperate climate and Andean meltwater for irrigation, the Central Zone includes Chile’s chief agricultural region, ideal for cereals, fruit growing and vineyards. Its most significant feature is the fertile central valley, at its widest just 70 km, that lies between the Andean foothills and the coastal range. In addition, the Central Zone includes Chile’s most famous tourist resort, Viña del Mar.

With the exception of forestry, Chile’s key industries are all represented in the Metropolitan Zone:

- Services (financial, consultancy, insurance, etc.);
- manufacturing (concentrated in and around the major cities);
- mining (mainly *Andina*, *El Teniente* and *Disputada de Las Condes*);
- agriculture, fruit farming, vineyards and horticulture; and
- tourism and leisure.

This zone provides large volumes of cargo for export, principally agricultural and agribusiness products and manufactured products. It is also major importer, as the most populated area of Chile and with the biggest concentration of industry in the country. Together, this makes the Central Zone the focus of domestic and foreign trade for the Chilean economy.

At country level, the cargo handled through the ports for public use of the V Region (San Antonio, Valparaíso and Ventanas) accounted 30.2 million tons in 2019, equivalent to 32.4 per cent of total cargo handled in Chile by ports for public use, with significant amounts of exports and imports.

Main information about the Ports of the Valparaíso Region is found in Annex 3 of this report.

### 2.1.2. Port of San Antonio

#### Overview

The Port of San Antonio, property of the San Antonio Port Company, is the largest port in Chile, with almost eighteen million tons handled in 2019. It is located in the city and province of San Antonio, in the Valparaíso Region of Chile. The Port of San Antonio is located at 33°34’16” latitude S. and 71°37’23” longitude W., less than 100 km west of Santiago. Due to its unique geographical location in the center of the country and because of its condition of natural port in an area of sheltered waters, the port of San Antonio is today the leader of the Chilean ports.



FIGURE 2: GENERAL VIEW OF THE PORT OF SAN ANTONIO



Source: Puerto Central S.A. Annual Report 2019

Linked to Chile's road network through two routes, the port of San Antonio enjoys accesses that facilitate effective and smooth truck traffic. Among these, the Fruit Highway ("Carretera de la Fruta" or "Route 66"), which allows the easy flow of trucks proceeding from the fruit producing and agricultural zones of the VI and VII Regions, located 130 km from the port terminals. Its main connection is Route 78 ("Autopista del Sol"), under concession by a private operator. This route cuts travel time between Santiago and San Antonio to only one hour. The port also has a dedicated railway network which links the port to the Chilean rail network.

The port is in deep water, naturally protected from northern storms by a headland, *Punta San Antonio* or *Punta Panul*. A 900m breakwater provides additional artificial protection from southern and westerly storms. There is ample space and water depth for turning and maneuvering within the resulting harbor. The marine approach to the port is in natural water depths of over 30m.

### Master Plan

The Master Plan defines the current and future use of the land and maritime areas of the port as well as their development in order to meet the forecasted demand of port services.

According with the Master Plan dated in 2013, the port vision by 2033 considers the construction and operation of the Outer Port (Area T3), specialized in servicing containers, and that the *Molo Sur* (Area T1) and *Costanera-Espigón* (Area T2) terminals specialize in servicing of non-containerized cargo, in order to continue serving current customers of this type of cargo.

For the southern sector of the port, the Plan considers modifying the configuration of the *Conexa Común Industrial* (XCI1) mixed use area to make way for the new berthing fronts.

From *Paseo Bellamar* to the North sector, the tourist status of the area is reinforced, in accordance with the provisions of the San Antonio Commune Regulatory Plan and its ongoing modifications.

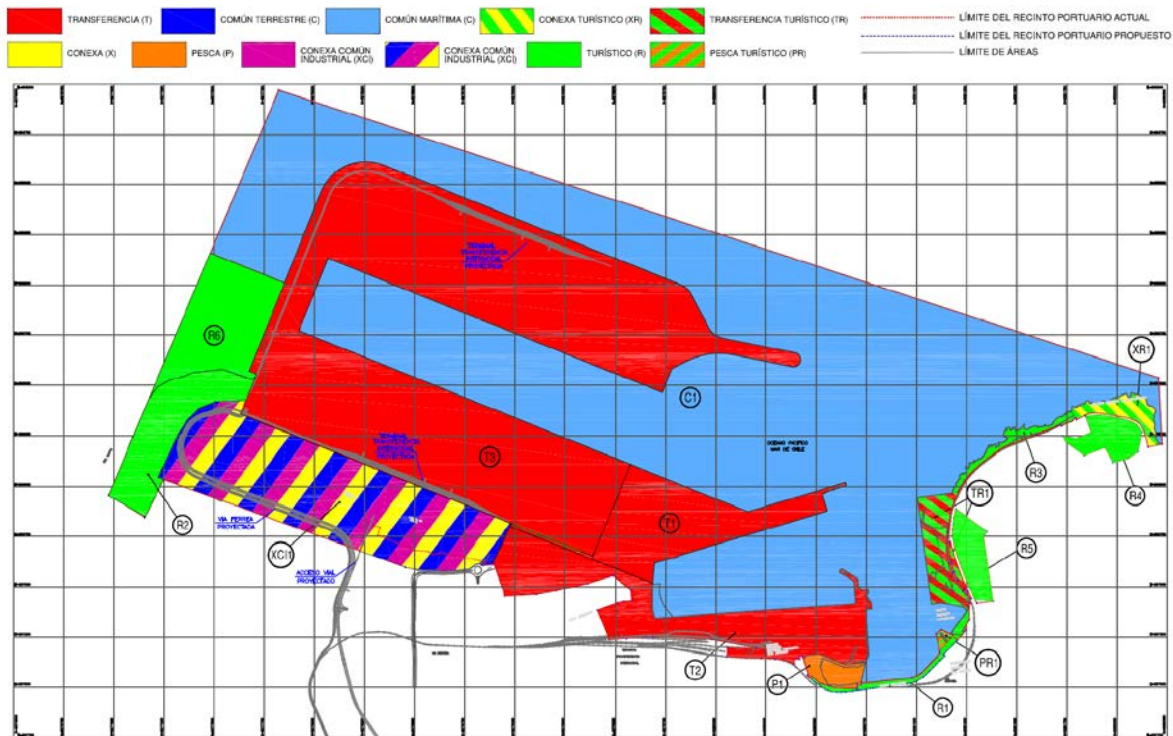
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Figure 3 shows the use of the port areas set up by the Master Plan to 2033.

FIGURE 3: SAN ANTONIO MASTER PLAN FOR A HORIZON TO 2033



Source: Master Plan 2013 San Antonio Port Company

Annex 4 presents the main characteristics of Puerto San Antonio.

### 2.1.3. Port of Valparaíso

#### Overview

At Latitude 33°01'33" S. and Longitude 71°38'22" W., the Port of Valparaíso is located 110 km to the north-east of the capital city, Santiago. The Port of Valparaíso is one of the largest ports of Chile. Most of the headquarters of the different actors of the maritime sector are located in Valparaíso. The port handles mostly containerized cargo, followed by general cargo and vehicles, mainly for distribution to the heavily populated Metropolitan Region. The main imports by volume are raw materials for manufacturing industry, chemicals and minerals. Among the exports, the most significant are fruit, food products, agricultural products, copper and fish and seafood products.

The port is in deep water naturally protected from southern and western winds by a headland, *Punta Ángeles*. A 1,000m man-made breakwater provides additional protection from northern storms for the majority of the berths. There is ample room and water depth for vessels to turn and maneuver within the harbor limits. The approach channel to the harbor is a straight two-way channel with a natural depth of over 60m.

FIGURE 4: PORT OF VALPARAÍSO



Source: Google Earth

Via Route 68, the port is only 110 kilometers away from Santiago, the country's capital. The terminal hinterland concentrates over 50% of the country's population and economic activity. Via Route 60CH, it is 204 kilometers away from the *Los Libertadores* Border Crossing, the main land gateway connecting Argentina and Chile across the Andes Mountains.

### Master Plan

The Master Plan defines the current and future use of the land and maritime areas of the port as well as their development in order to meet the forecasted demand of port services.

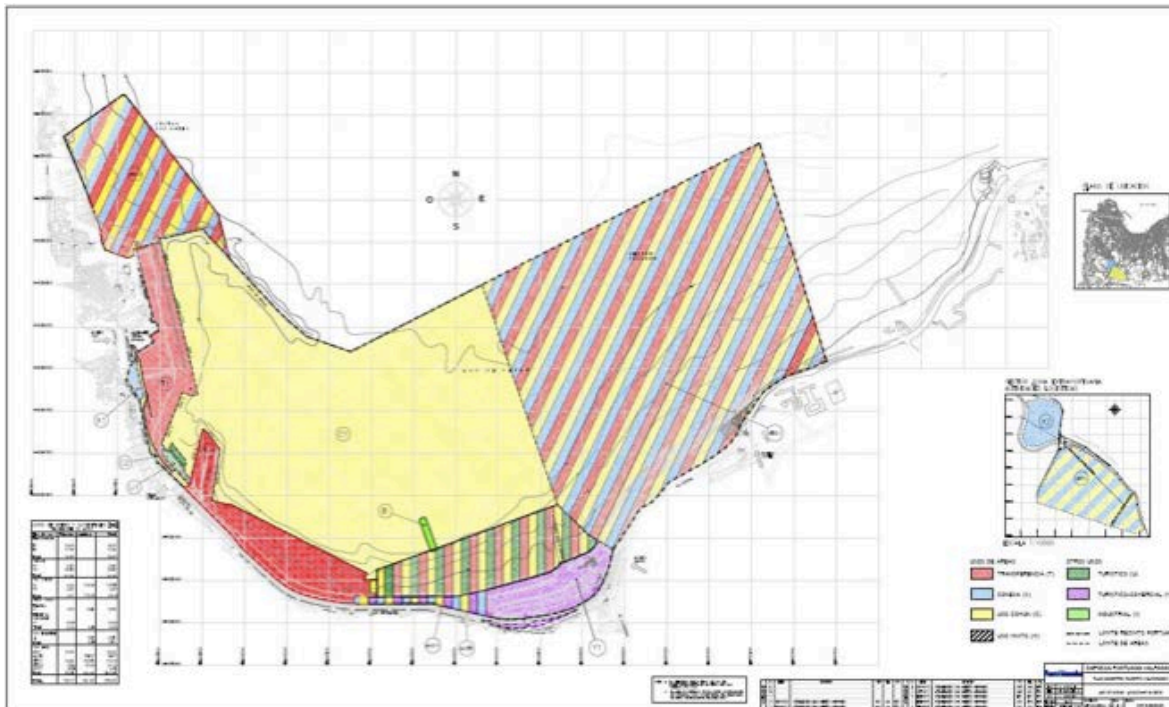
According with the Master Plan dated in August 2015, the port vision by 2035 considers (i) the construction and operation of the expansion of Terminal 2 with the new berth, specialized in servicing containers (red zone); (ii) the inclusion of *San Mateo* area to expand the backyard of terminal 1 (hatched area with yellow, red and blue stripes located at West); and (iii) the *Yolanda* area could be used for developing a new port named Terminal 3 (hatched area with yellow, red and blue stripes located at East). In the case of these last two areas, there is no information on the characteristics of the corresponding projects.

The following

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Figure 5 shows the use of the port areas set up by the Master Plan to 2035.

FIGURE 5: VALPARAÍSO MASTER PLAN FOR A HORIZON TO 2035



Source: Master Plan 2015 of Valparaíso Port Company

Annex 5 presents the main characteristics of Puerto San Antonio.

## 2.2. THE RAILROAD SECTOR

### 2.2.1. General Characteristics

The central and southern part of the country has a state railroad network administered by the State Railways Company. This network connects ports such as San Antonio and Valparaíso with Metropolitan area of Santiago, and the ports of San Vicente, Lirquén and Coronel located in the Biobío Region. The figure below shows a conceptual diagram of the railway network.

Passenger transport is fully managed by *EFE* on behalf of commuter's services located in Valparaíso Region, Metropolitan Region, and in the regions of the Ñuble, Biobío and Temuco. *EFE* also operates the Arica – La Paz railway.

FIGURE 6: EFE RAIL NETWORK



Source: State Railway Company (EFE)

Freight transport in the central and southern areas of the country is carried out by two private operators. One of them is Pacific Railways ("FEPASA"), owned by the Sigdo Koppers group whose business is linked to mining construction, engineering, ports, among others. The main transport corresponds to mining cargo to be transferred by the ports located in the Valparaíso Region: Ventanas, San Antonio and Valparaíso; containers with destination the ports of Valparaíso and San Antonio, and those heading to the ports of the Biobío Region: San Vicente, Coronel and Lirquén. In addition, it transports industrial waste bound for a treatment plant located about 50 km north of Santiago.

The other company is a family business named *Transporte Ferroviario Andrés Pirazolli* ("TRANSAP"), its operations correspond to forest cargo with destination to the ports of the Biobío region, and mining cargo bound to the port of San Antonio. It also moves containers to the port of San Antonio.

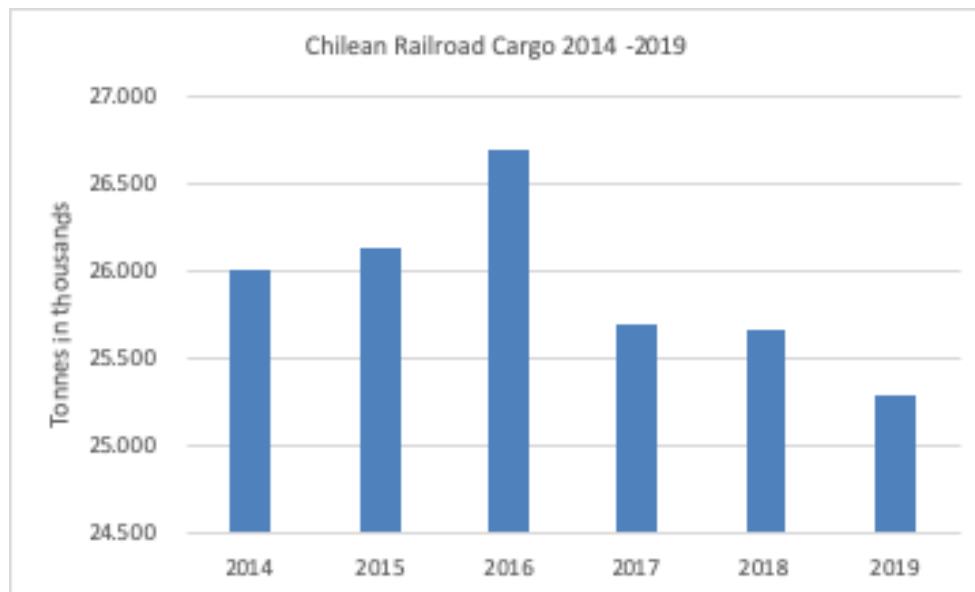
Four companies operate in the north of the country through their own railroad. They are the following:

- *Empresa de Transporte Ferroviario S.A. (FERRONOR)*, whose owner is Andrés Pirazolli. Its network extends from the northern central area to the north of the country, concentrating its operations in the Antofagasta Region and in mining services. Its port connections are located in ports such as Antofagasta, Chañaral, Caldera, Huasco, etc.
- *Antofagasta Bolivia Railway (FCAB)*, owned by the Luksic group, linked to large-scale mining and the port of Antofagasta. Its main operations are carried out in the Antofagasta region with mining cargo to the ports of Antofagasta and those located in the Bay of Mejillones.
- *Compañía Minera del Pacífico S.A.*, which operates mainly to the port of Guayacán located in the Coquimbo Region and to Huasco, located in the Atacama Region.
- *Sociedad Química y Minera de Chile*, whose operations were carried out in the port of Tocopilla, which were suspended in 2017.

## 2.2.2. The Traffic

Freight transport by rail has fluctuated between 25 and 27 million tons in recent years, as shown in the following figure.

FIGURE 7: CHILEAN RAILROAD CARGO 2014-2019



Source: Logistics Observatory. Ministry of Transport and Telecommunications

In 2018, 70% of the railroad cargo transported corresponded to bulk, mostly mining, forestry and grain cargo; 15% to liquid, chemicals and fuel; 14% to break bulk and forestry; and 2% to containers, solid waste and retail. Private ports account for 82% of the railway cargo. In the northern area, 65% of the country's railway load is transported and the remaining 35% is transported in the central area.

Currently only 4.0% of transport from and to the Port of San Antonio and only 1.0% of transport from and to the Port of Valparaiso occurs by rail. The ambition is to increase this to 30.0% in both ports, according to Ministry of Transport and Telecommunications.

The following table (or pie chart) shows the distribution by transport mode for both ports:

TABLE 1: 2019 MODAL SPLIT FOR SAN ANTONIO AND VALPARAÍSO PORTS

	Port of San Antonio	Port of Valparaiso
Road	96.0%	99.0%
Rail	4.0%	1.0% <sup>2</sup>

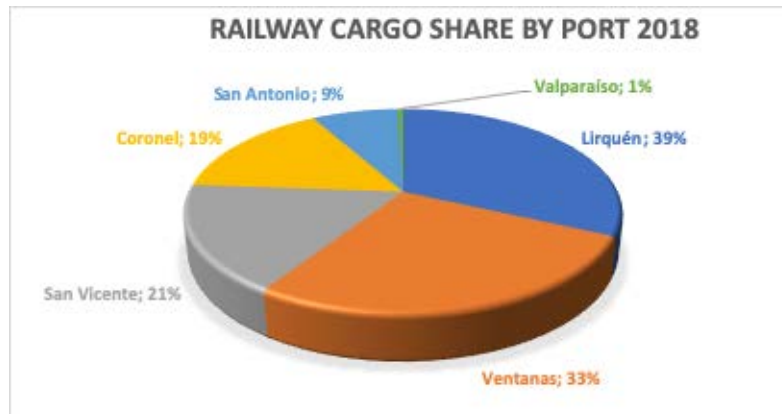
Source: San Antonio Port Company

Of the volumes transported by rail in the Valparaiso Region, the following figure shows the participation per port, during the year 2018.

<sup>2</sup> Estimate based on data from previous years



FIGURE 8: RAILWAY CARGO SHARE BY PORT 2018



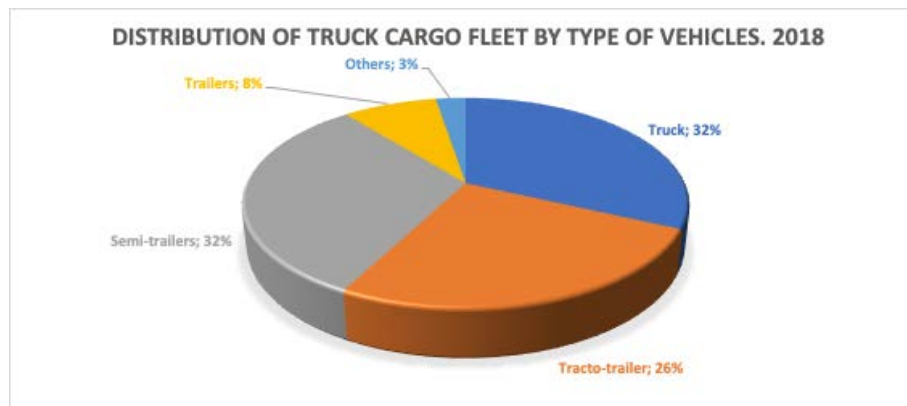
Source: Logistics Observatory. Ministry of Transport and Telecommunications

## 2.3. THE ROAD TRANSPORT SECTOR

### 2.3.1. Road freight transport

In 2018, there were about 18,000 companies engaged in road freight transport. There are no state companies that provide this type of service directly. The vehicle fleet is estimated at 217 thousand vehicles, including truck, tractor-trailer, semi-trailers, trailers and others. The following figure shows the fleet distribution by type of vehicle.

FIGURE 9: DISTRIBUTION OF TRUCK CARGO FLEET BY VEHICLE TYPE 2018



Source: Logistics Observatory. Ministry of Transport and Telecommunications

### 2.3.2. The infrastructure of road freight transport

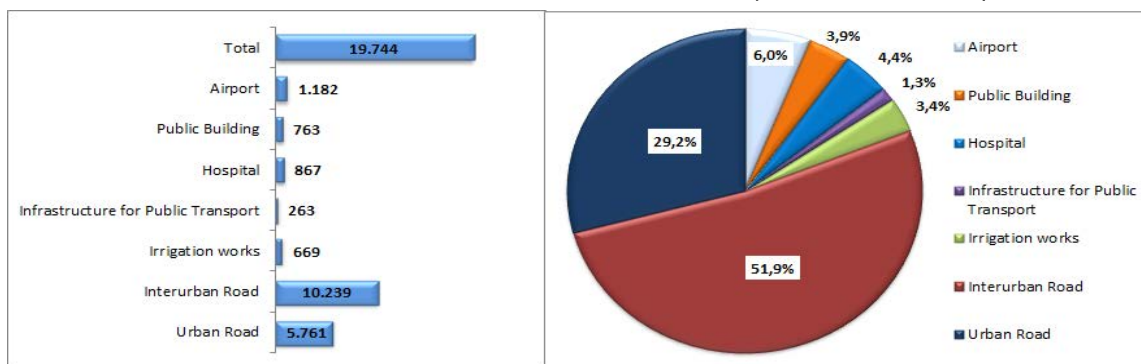
In 2018, the national road network comprised about 65 thousand kilometers, of which about 21 thousand kilometers are paved. There are 28 road concessions in operation from the northern area (Caldera) to the southern area (end of the mainland), with lateral branches in the central area reaching a total of 3,347 km. In addition, there are 11 projects under development, some are second generation.



The highway concession system as of the second quarter of 2020 is made up of a total of 33 projects with a current contract, which are distributed in 13 projects on Route 5 and 20 projects on transversal routes. Of the total, 6 are under construction, 2 are under construction and operation, and the other 25 are in operation. The investment committed in these projects is € 10,260 million, of which 52.7% correspond to Route 5 and the remaining 47.3% to Transversal Routes.<sup>3</sup>

The following figure shows the total investments committed in the concession system as of the first quarter of the year 2020, which shows that 51.9% corresponds to investments in the inter-urban road sector.

FIGURE 10: COMMITTED INVESTMENT CONCESSION SYSTEM (MM € AND PERCENTAGE)



Source: own elaboration based on General Directorate of Concessions of MOP

The state-owned ports located in the Valparaíso Region have the following road accesses:

- Port of Valparaíso
  - Route 68 connects to the Metropolitan Region and, from there, Route 5 south
  - Route 60 connects to areas of the interior, Argentina, and Route 5 North,
- Port of San Antonio
  - Route 78, also named "Autopista del Sol", connects to the Metropolitan Region and, from there, Route 5 North and South, and Route 57 that connects to Argentina
  - Route 66, also named "Camino de la Fruta", connects to the Route 5 South, without passing through Santiago, with areas located in the south

The Main Routes are show in the following figure.

FIGURE 11: MAIN ROAD AND RAILWAY ROUTES TO SAN ANTONIO PORT AND VALPARAÍSO PORT

<sup>3</sup> Information from the General Directorate of Concessions of MOP



Source: MOP, [www.amigosdeltren.cl](http://www.amigosdeltren.cl), and Google Earth

## 2.4. MAIN STAKEHOLDER RELATED TO THE PORT EXPANSIONS AND CORRIDORS

### 2.4.1. Port Expansions

The main stakeholders that can be identified in relation with port expansion projects are following:

- Ministry of Transport and Telecommunications
- Ministry of Finance
- Ministry of Environment
- Public Companies System
- Court of Defense of Free Competition
- Environmental Assessment Service
- City Councils
- Non-governmental organizations
- Community organizations
- Maritime Port Organizations and Operators
- Logistic Community of San Antonio ("COLSA")
- Logistic Forum of Valparaíso Port ("FOLOVAP")
- Trucking companies
- Railway Transport Operators companies

In addition, there is another group of stakeholders that correspond to the current concessionaires of terminals of the state port companies. Below is the list of them:

TABLE 2: CONCESSIONAIRES OF STATE-OWNED PORTS TERMINAL AND THEIR CONTROLLERS

Port Company	Terminal	Concessionaire	Share Holders	%	Concessionaire Controllers
Arica	Port	Terminal Puerto Arica S.A.	Neltume Ports S.A.	50	Subsidiary of Ultramar S.A. group
			Inversiones y Construcciones BELFI Ltda.	50	
Iquique	Terminal 2	Iquique Terminal Internacional S.A.	SAAM Puertos S.A.	99.9	Quiñenco Group. CSAV (Hapag Lloyd)
			SAAM Inversiones S.P.A.	0.1	Quiñenco Group. CSAV (Hapag Lloyd)
Antofagasta	Terminal 2	Antofagasta Terminal Internacional S.A.	SAAM Puertos S.A.	35	Quiñenco Group. CSAV (Hapag Lloyd)
			Grupo Empresas Navieras S.A.	35	Linked to AGUNSA S.A
			Inversión. Punta de Rieles Ltda.	30	Linked to FCAB
Coquimbo	Port	Terminal Puerto Coquimbo S.A.	Inversiones Neltume Ltda.	70	Subsidiary of Ultramar S.A. group
			Inversiones y construcciones BELFI Ltda.	30	
Valparaíso	Terminal 2	Terminal Cerros de Valparaíso S.A.	Única-Aleatica S.A.(Chile)	99.9	
			Única – Aleatica S.A. (Spain)	0.1	
	Terminal 1	Terminal Pacifico Sur S.A.	Neltume Ports S.A.	60.1	Related to Puerto Coronel (Ultramar Group)
			Contug Terminals S.A.	39.9	
San Antonio	Terminal Molo Sur	San Antonio Terminal Internacional S.A.	SAAM Puertos S.A.	50	Quiñenco Group. CSAV (Hapag Lloyd)
			SSA Holding International Chile Ltda.	50	
	Terminal Costanera	Puerto Central S.A.	DP World Uk Limited	100	Controller Puerto Lirquén
			Graneles de Chile S.A.	40	
			Marítima Valparaíso Chile S.A	49	
Terminal Panul	Puerto Panul S.A.	CHL Renta Alter. II F.I	11		
Talcahuano-San Vicente	San Vicente	San Vicente Terminal Internacional S.A.	SAAM Puerto S.A.	50	Quiñenco Group. CSAV (Hapag Lloyd)
			SSA Holding International Chile Ltda.	50	

Source: own elaboration based on Annual Reports of Concessionaires

## 2.4.2. Port Corridors

The main stakeholders that can be identified in relation with port corridors projects are following:

- Ministry of Transport and Telecommunications
- Ministry of Finance

- Ministry of Public Works (including General Directorate for Concessions)
- Ministry of Environment
- State Railways Company
- Environmental Assessment Service
- City Councils
- Non-governmental organizations
- Community organizations
- Railway Transport Operators companies
- Current private actors/concessionaries

The main private actors/concessionaries in the interurban road sector currently correspond to 5 large international groups, which have **70%** (23) of the total of 33 concessioned projects, the other **30%** (10) being in the hands of different national groups and international.

The following table shows the distribution of intercity road projects among the main players in the industry:

**TABLE 3: MAIN PLAYERS IN THE INTERCITY HIGHWAY CONCESSIONS INDUSTRY**

Actor	N° Projects	Project Name
Sacyr Group (Spain)	7	Concesión Ruta 5 Tramo Vallenar - Caldera
		Concesión Autopista Concepción - Cabrero
		Concesión Alternativas de Acceso a Iquique
		Concesión Ruta 5 Tramo La Serena - Vallenar
		Concesión Mejoramiento y Conservación de la Ruta 43 de la Región de Coquimbo
		Segunda Concesión Ruta 66 Camino de la Fruta
		Segunda Concesión Ruta 5 Tramo Los Vilos - La Serena + Conurbación
ISA-Intervial Group (Colombia)	6	Concesión Ruta 5 Tramo Talca - Chillán
		Concesión Ruta 5 Tramo Chillán - Collipulli
		Concesión Ruta 5 Tramo Temuco - Río Bueno
		Concesión Ruta 5 Tramo Collipulli - Temuco
		Concesión Ruta 5 Tramo Santiago - Talca y Acceso Sur a Santiago
		Segunda Concesión Ruta del Loa
Abertis Group (Italy-Spain)	4	Concesión Autopista Santiago - San Antonio, Ruta 78
		Concesión Ruta 57 Santiago - Colina - Los Andes
		Concesión Interconexión Vial Santiago - Valparaíso - Viña del Mar, Ruta 68
		Concesión Camino Internacional Ruta 60 CH
Globalvia Group (Spain)	3	Concesión Acceso Norte a Concepción
		Concesión Ruta 5 Tramo Santiago - Los Vilos
		Concesión Ruta 160 Tramo Tres Pinos - Acceso Norte a Coronel
Costanera Group (Atlantia - Italy)	3	Concesión Ruta 5 Tramo Río Bueno - Puerto Montt
		Concesión Red Vial Litoral Central
		Concesión Conexión Vial Ruta 78 hasta Ruta 68

Source: own elaboration based on General Directorate of Concessions of MOP

The table shows that currently the main players in the industry are:

- The **Sacyr Group**, with 7 concessioned projects, most of which are in the north of Chile, one in the center and one in the south of the country.
- The **ISA Intervial Group**, with 6 concessioned projects, most of which corresponds to 5 sections of Route 5 South, from Santiago to Río Bueno, in southern Chile, and one Project in the northern part of the country.

In addition to Sacyr Group and ISA-Intervial Group, the other actor that is active in concession tenders is Abertis Group who is the main shareholder of the concession companies *Autopista del Sol* (Route 78) and *Rutas del Pacífico S.A.* (Route 68) and who will most likely be an important actor in the next bidding process for this both highways.

## 2.5. TRENDS

Chile had been advancing in digitization since before the coronavirus. The Ministry of Transport and Telecommunication leads one of the most important digitization projects through the Logistics Development Program, and it is named Maritime Single Window (VUMAR), which digitizes the procedures associated with the reception and dispatch of ships that dock in the country. According to the Ministry *"This will save a large number of papers that currently must be presented to all the public services involved (Agricultural and livestock service, Police of Investigation, National Fishing Service, Ministry of Health, Custom and Maritime Authority)"*. The work is being carried out from a joint digital transformation perspective with public and private actors, including shipping agents, as this initiative may interoperate with international windows to provide information on ships.

Another of the projects under development is the Identification System for Foreign Trade and Drivers Transportation (SITCOMEX), a platform that will allow the validation of information associated with drivers and patents that carry out any operation in port and logistics facilities nationwide.

In parallel, work continues with port companies on their gradual adoption of technology, so that they have management systems such as Port Community System (PCS), providing them with the guidelines and base standards to carry out their implementation.

The Ministry points out that will continue working on updating the regulatory instruments that allow the integration of public services.



### 3. MARKET SCAN

#### 3.1. PORT PROJECTS

##### 3.1.1. Port of San Antonio

The following projects were identified for San Antonio Port:

*Outer Port (Puerto Exterior) or Large Scale Port (Puerto Gran Escala)*

The Project consists of the construction and operation of two new port terminals named Terminal 1 (TS1) or “Sea Side Terminal” and Terminal 2 (TS2) or “Land Side Terminal”, with a total pier length of 1,730 m each, the capacity to transfer 6 million TEU/year, and to be qualified to serve Class E ships with a capacity of 15,000 TEUs. The project involves a total investment of €3,000 million.

FIGURE 12: OUTER PORT OR “PUERTO EXTERIOR PROJECT” OF SAN ANTONIO PORT



Source: San Antonio Port Company

The following table shows de construction schedule:

TABLE 4: NEW PORT OF SAN ANTONIO SCHEDULE

Año:		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	...	
Semestre:		s1	s2	s1	s2	s1	s2	s1	s2	s1	s2	s1	s2	s1	s2	s1	s2	s1	s2	s1	s2	s1	s2	s1	s2
Fase de Construcción	Fase 0	Construcción Obras comunes portuarias y obras de apoyo a la construcción																							
	Fase 1A								Construcción TS1-A																
Fase de Operación	Fase 1B												Crecimiento Operacional TS1-B												
	Fase 2A																Crecimiento Operacional TS2-A								
	Fase 2B																			Crecimiento Operacional TS2-B					
											Operación TS1-A (25% del PE)			Operación TS1 (50% del PE)			Operación TS1 + TS2-A (75% del PE)		PLENA OPERACIÓN						

Source: Environmental Study entered to SEA (Environmental Service) on May 8, 2020

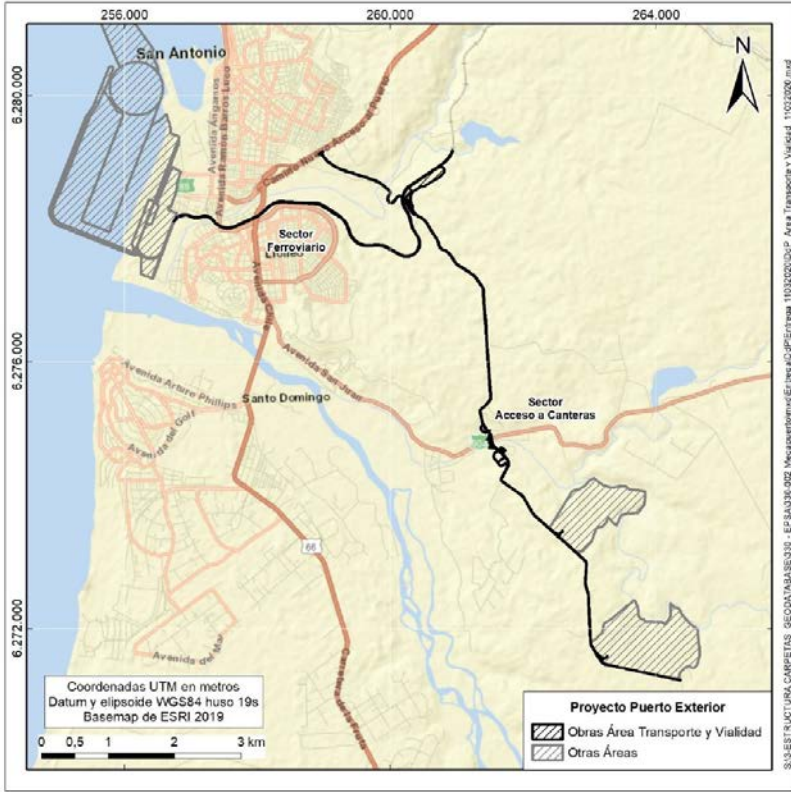
According to the information gathered in an interview with the company's management, this project would be divided into 5 bidding processes: 3 associated with the construction of the breakwater and two with the construction and operation of each of the two terminals. The administration indicated that in the opinion of the Ministry of Finance, the concessionaire of terminal 1 should be responsible for the construction of the breakwater. This is however not yet decided and for the remainder of this document it is assumed they will be separate tenders.

A description of these processes according to the definitions of the company is presented in the following tables.

TABLE 5: OUTER PORT – PREPARATORY WORKS DESCRIPTION

Project:	Preparatory works of the Corridor for Outer Port
Decision Maker:	San Antonio Port Company
Address:	Avenida Barros Luco N°1.623, Oficina 8-A, San Antonio
Contact:	Sub manager of Puerto Exterior Project Telephone: +(56) 35 258 6000
Description:	<p>The project will be developed outside the port and includes the expansion of the current G-908 route and its connection through a bridge of the current G-904 route with the <i>Los Brujos</i> road, the latter will be extended through a new road to the G-86 route (crossing under the existing railway line through a trench tunnel), thus allowing the transport of the filling material to the Outer Port both by the railway line and by the indicated road. (See routes drawn in black in the next figure)</p> <p>For the transport of material, by means of trains, the construction of a railway Transfer Station is required, in addition to the expansion of some sectors of the railway line to two tracks, in order to allow the crossing of trains in both directions between the Transfer Station and the Outer Port. Finally, considering that the current railway line is being implemented in the direction of the Barrancas Station Railway terminal facilities, the project considers a new connection to the <i>Outer Port</i> by extending the existing railway line in a 1,500 m section to the main work site located within the port area.</p>

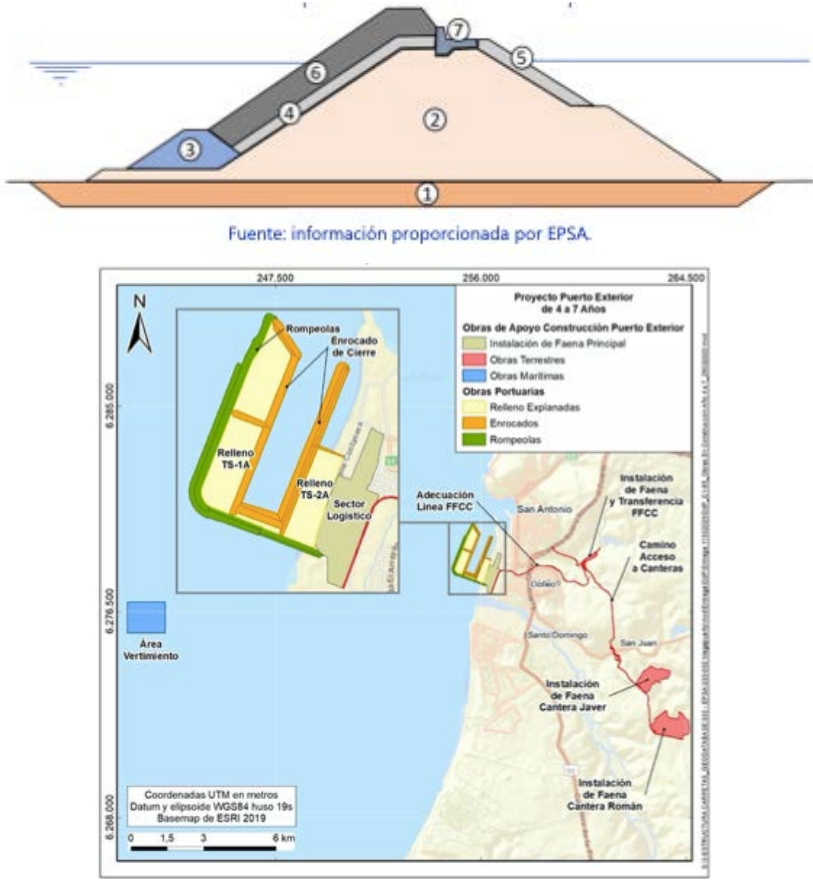


<p>Figure:</p>	
<p>Estimated CAPEX:</p>	<p>€ 168 Million</p>
<p>Engineering Studies</p>	<p>Detailed Engineering available</p>
<p>Opportunity Business:</p>	<p>Components:</p> <ol style="list-style-type: none"> <li>1. Road construction</li> <li>2. Railroad construction</li> <li>3. Bridge Construction</li> </ol>
<p>Project Schedule:</p>	<p>Second semester 2021</p>
<p>Implementation Scheme:</p>	<p>Construction Contract awarded by San Antonio Port Company</p>
<p>Tender Program:</p>	<p>To be defined and it will be published in the link of tenders in progress ("Licitaciones en Curso") on the website of San Antonio Port Company (link: <a href="http://www.sanantonioport.cc.cl/index1.html">http://www.sanantonioport.cc.cl/index1.html</a>)</p>

Bidder requirements:	To be defined
Award Criteria:	To be defined
Stakeholders:	<ul style="list-style-type: none"> <li>• Ministry of Public Works</li> <li>• State Railway Company</li> <li>• Ministry of Finance</li> <li>• National of Regional Environmental Assessment Service</li> <li>• Municipality of San Antonio</li> <li>• Ministry of Environment</li> </ul>
Competition:	<p>Chilean construction companies such as<sup>4</sup>:</p> <ul style="list-style-type: none"> <li>• Belfi</li> <li>• Besalco</li> <li>• Brotec</li> <li>• Icafal</li> </ul> <p>Also international construction companies.</p>

<sup>4</sup> Chilean construction companies that have carried out works in this area have been mentioned.

TABLE 6: OUTER PORT – BREAKWATER CONSTRUCTION DESCRIPTION

Project:	Breakwater construction
Decision Maker:	San Antonio Port Company
Address:	Avenida Barros Luco N°1.623, Oficina 8-A, San Antonio
Contact:	Sub manager of Puerto Exterior Project Telephone: +(56) 35 258 6000
Description:	It considers a typology of sloping breakwaters with a plan length of approximately 4,000 m, and two main alignments (start and trunk) with their respective transition section (elbow), as well as a head at the end. The start of the breakwater is perpendicular to the coastline and the mouth of the Maipo River is adjacent to the north bank. This section is approximately 1,260 m long. The elbow has an approximate length of 330 m and the trunk is aligned practically parallel to the coast with 2,245 m in length. Finally, the head is approximately 160 m long.
Figure:	 <p>The figure consists of two parts. The top part is a cross-sectional diagram of a breakwater structure. It shows a trapezoidal shape with a flat top and sloping sides. The structure is divided into seven numbered sections: 1 (bottom base), 2 (main body), 3 (left slope), 4 (transition section), 5 (right slope), 6 (top surface), and 7 (head section). The bottom part is a map titled 'Proyecto Puerto Exterior de 4 a 7 Años'. The map shows the location of the breakwater in the bay of San Antonio, Chile. It includes a legend for 'Obras de Apoyo Construcción Puerto Exterior' (yellow), 'Obras Portuarias' (orange, green, blue), and 'Obras Marítimas' (red). Key locations marked include 'Rompelotas', 'Enrocado de Cierre', 'Relleno TS-1A', 'Relleno TS-2A', 'Sector Logístico', 'Adecuación Línea FFCC', 'Instalación de Faena y Transferencia FFCC', 'Camino Acceso a Canteras', 'Instalación de Faena Cantera Javer', and 'Instalación de Faena Cantera Román'. The map also shows 'Área Vertimiento' and 'San Antonio'. A scale bar indicates 0, 1.5, 3, and 6 km. The map uses UTM coordinates (Datum and ellipsoid: WGS84, huso 19s, Basemap de ESRI 2019).</p> <p>Fuente: información proporcionada por EPSA.</p>
Estimated CAPEX:	€ 750 Million

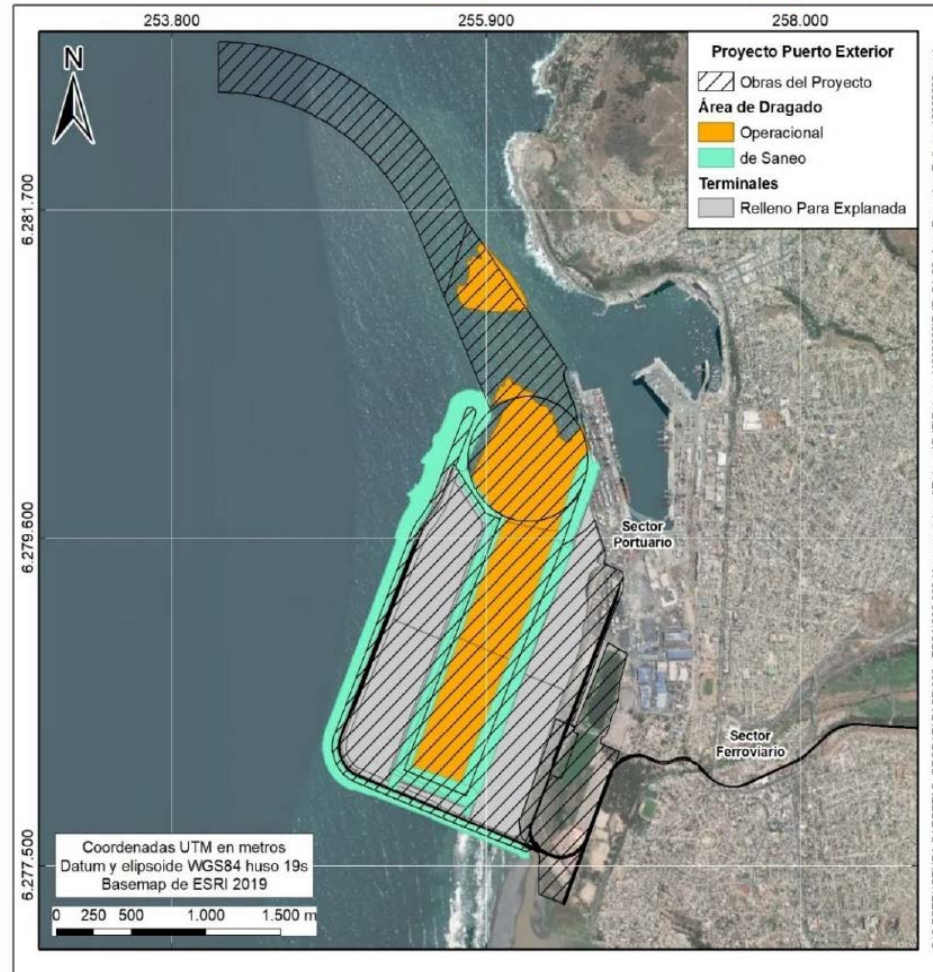
Engineering Studies	Detailed Engineering available
Opportunity Business:	<p>Components:</p> <ol style="list-style-type: none"> <li>1. Quarry equipment</li> <li>2. Quarry operations</li> <li>3. Railroad equipment</li> <li>4. Trucks equipment</li> <li>5. Railroad operator</li> <li>6. Truck operator</li> <li>7. Break water construction</li> </ol>
Project Schedule:	Second semester 2021
Implementation Scheme:	Construction Contract awarded by San Antonio Port Company
Tender Program:	To be defined and it will be published in the link of tenders in progress ("Licitaciones en Curso") on the website of San Antonio Port Company (link: <a href="http://www.sanantonioport.cc.cl/index1.html">http://www.sanantonioport.cc.cl/index1.html</a> )
Bidder requirements:	To be defined
Award Criteria:	To be defined
Stakeholders:	<ul style="list-style-type: none"> <li>• Ministry of Transport and Telecommunications</li> <li>• Ministry of Finance</li> <li>• Public Companies System ("Sistema de Empresas Públicas" or "SEP")</li> <li>• DIRECTEMAR</li> <li>• National of Regional Environmental Assessment Service</li> <li>• Municipality of San Antonio</li> <li>• Ministry of Environment</li> <li>• Current Port Concessionaires</li> <li>• City Council</li> <li>• Maritime and port organizations</li> </ul>

Competition:	<ul style="list-style-type: none"><li>• International construction companies</li><li>• Local construction companies:<ul style="list-style-type: none"><li>○ See List of Current Major Works Contractors of the Ministry of Public Works, classified as first category in works of pile driving and maritime sheet piles (“4.O.C.Obras de Hinca de Pilotaje y Tablestacas Marítimas”)</li></ul></li></ul>
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TABLE 7: OUTER PORT – DREDGING DESCRIPTION

Project:	Dredging
Decision Maker:	San Antonio Port Company
Address:	Avenida Barros Luco N°1.623, Oficina 8-A, San Antonio
Contact:	Sub manager of <i>Puerto Exterior</i> Project Telephone: +(56) 35 258 6000
Description:	<p>Corresponding dredging (15,700,000 m<sup>3</sup> approx.) and reclamation of terminals yards.</p> <p>According to the maneuvering studies carried out for the Project, and to achieve the operating conditions of the PE design ship, it is necessary to dredge the maritime areas of the access channel, turning area and dock. The access channel shall be dredged to a minimum depth of -24.0 m NRS and the turning area and basin shall be dredged to a minimum depth of -18.5 m NRS. This dredging includes dredging of soil and rock.</p>

Figure:

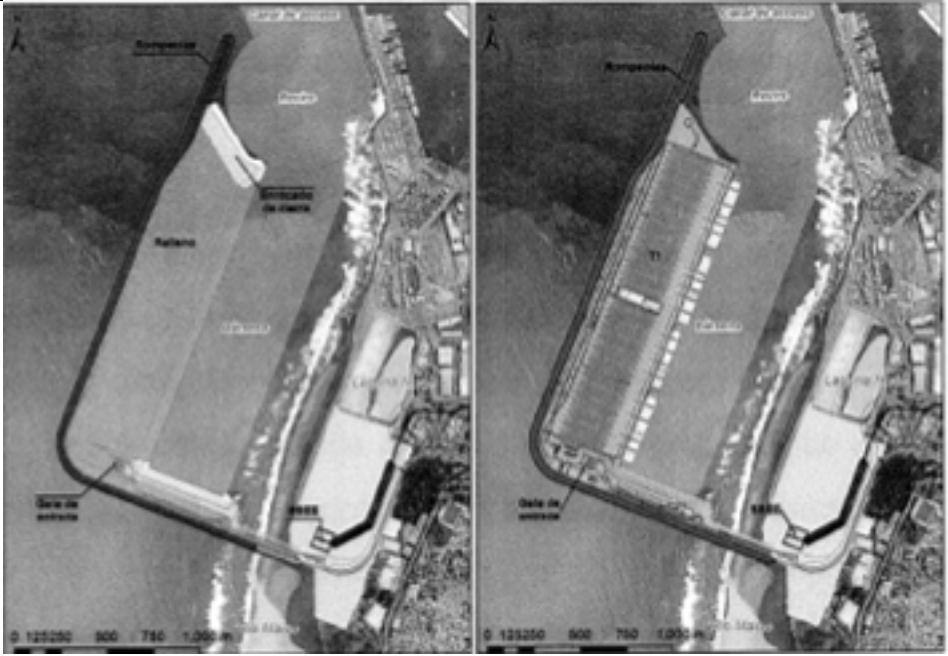


Estimated CAPEX:	€ 84.0 Million
Engineering Studies	Detailed Engineering available
Opportunity Business:	Components: 1. Dredging equipment and operation
Project Schedule:	To be executed in the second semester of 2030
Implementation Scheme:	Construction Contract awarded by San Antonio Port Company

Tender Program:	To be defined it will be published in the link of tenders in progress (“Licitaciones en Curso”) on the website of San Antonio Port Company (link: <a href="http://www.sanantonioport.cc.cl/index1.html">http://www.sanantonioport.cc.cl/index1.html</a> )
Bidder requirements:	To be defined
Award Criteria:	To be defined
Stakeholders:	<ul style="list-style-type: none"> <li>• Ministry of Transport and Telecommunications</li> <li>• Ministry of Finance</li> <li>• Public Companies System</li> <li>• DIRECTEMAR</li> <li>• National of Regional Environmental Assessment Service</li> <li>• Municipality of San Antonio</li> <li>• Ministry of Environment</li> <li>• Current Port Concessionaires</li> <li>• City Council</li> <li>• Maritime and port organizations</li> </ul>
Competition:	International Dredging companies



TABLE 8: OUTER PORT – CONCESSION OF TERMINAL 1 (SEA SIDE) DESCRIPTION

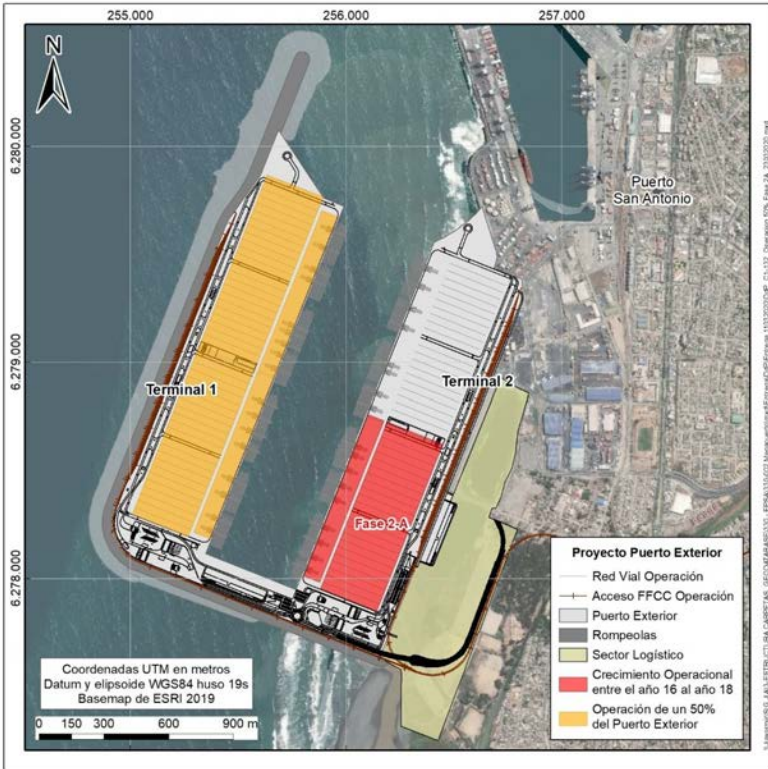
Project:	Concession of Terminal 1 (Sea Side Terminal) of Outer Port
Decision Maker:	San Antonio Port Company
Address:	Avenida Barros Luco N°1.623, Oficina 8-A, San Antonio
Contact:	Sub manager of Puerto Exterior Project Telephone: +(56) 35 258 6000
Description:	<p>San Antonio Port Company will grant to Concessionaire an exclusive concession to build, develop, equip, operate, maintain and exploit the Terminal 1, including the right to charge tariffs for services provided at the terminal, subject to Concession Contract</p> <p>Concession includes the following mandatory construction projects:</p> <ol style="list-style-type: none"> <li>1. Phase 1: to complete a pier of 865 meters with its corresponding backyard within 36 months following to delivery date of Concession Area. In addition, must complete a 5 tracks intermodal railroad terminal</li> <li>2. Phase 2: to complete the extension of 865 meters of the pier with its corresponding backyard within 60 months following to delivery date</li> </ol>
Figure:	
Term	30 years
Estimated CAPEX:	€ 1,000 Million

Engineering Studies	Basic Engineering available The development of Detailed Engineering would be the responsibility of the concessionaire
Opportunity Business:	Components: <ol style="list-style-type: none"> <li>1. Concessionaire</li> <li>2. Concessionaire Contractor, providing: <ul style="list-style-type: none"> <li>• Financing</li> <li>• Engineering Studies</li> <li>• Construction</li> <li>• Equipment</li> <li>• Port Community Systems</li> <li>• Staff training services</li> </ul> </li> </ol>
Project Schedule:	2030
Implementation Scheme:	<ol style="list-style-type: none"> <li>1. <b>Type of contract:</b> Port Concession awarded by San Antonio Port Company under Law 19.542</li> <li>2. <b>Term:</b> 30 years. <ol style="list-style-type: none"> <li>1. <b>Concessionaire Organization.</b> "Concessionaire" must be a "Stock Corporation" organized and existing under the laws of the Republic of Chile, which has as its purpose the development, maintenance and exploitation of the Terminal 1.</li> <li>2. <b>Tariff and Services.</b> Tariff charge for provision of certain infrastructure facilities and transfer of cargo between vessel and backyard at the Terminal ("Basic Services") must not exceed those indicated in Economic Offer.</li> </ol> </li> <li>3. <b>Payments To Port Company</b> <ul style="list-style-type: none"> <li>• Base Annual Payment</li> <li>• Variable Annual Payment. Based on number of TEU moved prior year</li> <li>• Other payments</li> <li>• Up-front payment to be made to the respective Port Company for common good (Tie-breaker If applicable)</li> <li>• Costs associated to the bidding process (Up-front payment)</li> <li>• Costs associated to compensation of temporary port workers (Up-front payment if applicable)</li> </ul> </li> <li>4. <b>Limits to Vertical Integration.</b> Relevant user of maritime transport chain of general cargo may not, as a whole, own more than 60% of equity, nor more 60% of equity with voting right, nor rights for more than 60% of the profits of concessionaire.</li> </ol>

	<p>5. <b>Limits to Horizontal Integration.</b> The concessionaire and its related persons may not participate directly or indirectly, in others concessionaires of terminal for public use in the same region - whether public or private - that provides port services to containerized cargo.</p>
<p>Tender Program:</p>	<ul style="list-style-type: none"> <li>• Distribution of bids documents</li> <li>• Distribution of digital folder with operational, legal and commercial information</li> <li>• Questions &amp; answers process</li> <li>• Presentations by interested parties</li> <li>• Due diligence, including data room, site visits and meetings with port management</li> <li>• Review of concession contracts</li> <li>• Voluntary qualification process (“revisión anticipada”)</li> <li>• Submission of bids</li> <li>• Concession Award</li> <li>• Concession commencement</li> </ul>
<p>Bidder requirements:</p>	<ol style="list-style-type: none"> <li>1. <b>Experience:</b> A single bidder or in the case of a consortium, at least one of its members, must show demonstrable experience as operator of port facilities, involving handling or transferring no less than 600,000 TEU per year, for at least 3 years of the last 10 years. Bidder showing experience must own 35% of the concessionaire share capital.</li> <li>2. <b>Shareholder equity of single bidder or consortium:</b> Pending</li> <li>3. <b>Submission Of Bids</b> <ul style="list-style-type: none"> <li>• Envelope 1 (the Technical Proposal”) will contain           <ul style="list-style-type: none"> <li>○ identification of the bidder</li> <li>○ evidence of compliance with the financial and technical requirements or, as the case may be, the qualification certificate(s)</li> <li>○ business plan for the concession with detailed description of planned investments</li> <li>○ a performance bond (bid guarantee) US\$ 5,000,000</li> </ul> </li> <li>• Envelope 2 (the “Economic Offer”), including           <ul style="list-style-type: none"> <li>○ Tariff Offered format. Indicating the Tariffs offered by Basic Services</li> <li>○ Tie-breaker format. In the case that tariffs offered by two or more bidders result in the Minimum Tariff Index I (Imin), each bidder must fill the additional Up-front payment to be made to the respective Port Company for common goods</li> </ul> </li> </ul> </li> </ol>

Award Criteria:	<ul style="list-style-type: none"> <li>- Concession will award to the qualified bidder offering the Tariff for Basic Services results equal to the Minimum Tariff Index I (I<sub>min</sub>). In case of tie, it will award to the qualified bidder offering the highest additional Up-front payment.</li> <li>- If no offer results equal to the Minimum Tariff Index (I<sub>min</sub>), the concession will be awarded to bidder offering the minimum Tariff Index ("I").</li> <li>- Tariff Index ("I")             <ul style="list-style-type: none"> <li>- <math>I = TTC * \alpha + TTCR * \beta + TTOC * g + TMC * \delta + TMN * \varepsilon</math></li> <li>- Where,                 <ul style="list-style-type: none"> <li>- TTC= Tariff for transfer of no reefer containers</li> <li>- TTCR= Tariff for transfer of reefer containers</li> <li>- TTOC= Tariff for transfer of other cargos</li> <li>- TMC= Tariff for use of infrastructure by cargo</li> <li>- TMN= Tariff for use of infrastructure by vessels</li> <li>- A, <math>\beta</math>, <math>\gamma</math>, <math>\delta</math>, <math>\varepsilon</math>= parameters defined by Port Company</li> </ul> </li> </ul> </li> </ul>
Stakeholders:	<ul style="list-style-type: none"> <li>• Ministry of Transport and Telecommunications</li> <li>• Ministry of Finance</li> <li>• Public Companies System</li> <li>• DIRECTEMAR</li> <li>• National of Regional Environmental Assessment Service</li> <li>• Municipality of San Antonio</li> <li>• Ministry of Environment</li> <li>• Current Port Concessionaires</li> <li>• Antitrust Court</li> <li>• City Council</li> <li>• Maritime and port organizations</li> <li>• Community organizations</li> </ul>
Competition:	International companies and shareholders of port concessionaires mentioned on Table 2.

TABLE 9: OUTER PORT – CONCESSION OF TERMINAL 2 (LAND SIDE) DESCRIPTION

Project:	Concession of Terminal 2 (Land Side) of Outer Port
Decision Maker:	San Antonio Port Company
Address:	Avenida Barros Luco N°1.623, Oficina 8-A, San Antonio
Contact:	Sub manager of Puerto Exterior Project Telephone: +(56) 35 258 6000
Description:	<p>San Antonio Port Company will grant to Concessionaire an exclusive concession to build, develop, equip, operate, maintain and exploit the Terminal 2, including the right to charge tariffs for services provided at the terminal, subject to Concession Contract</p> <p>Based on concession Terminal 1, it is assumed that concession will include the following mandatory construction projects:</p> <ol style="list-style-type: none"> <li>1. Phase 1: to complete a pier of 865 meters with its corresponding backyard within 36 months following to delivery date of Concession Area. In addition, must complete a 5 tracks intermodal railroad terminal</li> <li>2. Phase 2: to complete the extension of 865 meters of the pier with its corresponding backyard within 60 months following to delivery date</li> </ol>
Figure:	
Term	30 years

Estimated CAPEX:	€ 1,000 Million
Engineering Studies	Basic Engineering available. The development of Detailed Engineering would be the responsibility of the concessionaire
Opportunity Business:	<p>Components:</p> <ol style="list-style-type: none"> <li>1. Concessionaire</li> <li>2. Concessionaire Contractor, providing: <ul style="list-style-type: none"> <li>• Financing</li> <li>• Engineering Studies</li> <li>• Construction</li> <li>• Equipment</li> <li>• Port Community Systems</li> <li>• Staff training services</li> </ul> </li> </ol>
Project Schedule:	2038
Implementation Scheme:	Based on Law N° 19.542 it is assumed that scheme could be similar to Terminal 1 port concession.
Tender Program:	Could be similar to Terminal 1 port concession
Bidder requirements:	To be defined by the San Antonio Port Company
Award Criteria:	To be defined by the port company
Stakeholders:	<ul style="list-style-type: none"> <li>• Ministry of Transport and Telecommunications</li> <li>• Ministry of Finance</li> <li>• Public Companies System</li> <li>• DIRECTEMAR</li> <li>• National of Regional Environmental Assessment Service</li> <li>• Municipality of San Antonio</li> <li>• Ministry of Environment</li> <li>• Current Port Concessionaires</li> <li>• Antitrust Court</li> <li>• City Council</li> <li>• Maritime and port organizations</li> <li>• Community organizations</li> </ul>
Competition:	International companies and shareholders of port concessionaires mentioned on Table 2.

TABLE 10: SAN ANTONIO PORT COMMUNITY SYSTEM DESCRIPTION

Project:	Port Community System
Decision Maker:	San Antonio Port Company
Address:	Avenida Barros Luco N°1.623, Oficina 8-A, San Antonio
Contact:	Sub manager of Logistic Management Telephone: +(56) 35 258 6000
Description:	The project has a purpose collect data on the operation of the logistics chains that operate with Port of San Antonio and make it available to its users.
Estimated CAPEX:	€ 3.5 Million
Opportunity Business:	Components:  1. Hardware 2. Software 3. Operation maintenance
Project Schedule:	First semester 2021
Implementation Scheme:	Service contract
Tender Program:	To be defined it will be published in the link of tenders in progress ("Licitaciones en Curso") on the website of San Antonio Port Company (link: <a href="http://www.sanantonioport.cc.cl/index1.html">http://www.sanantonioport.cc.cl/index1.html</a> )
Bidder requirements:	To be defined
Award Criteria:	To be defined
Stakeholders:	<ul style="list-style-type: none"> <li>• Ministry of Transport and Telecommunications</li> <li>• Ministry of Finance</li> <li>• Municipality of San Antonio</li> </ul>



Competition:	Companies, such as <sup>5</sup> : <ul style="list-style-type: none"><li>• Sonda</li><li>• Indra Sistemas</li><li>• Everis</li><li>• CrimsonLogic</li><li>• Idom</li><li>• Biznet</li><li>• Advent Valencia Port</li></ul>
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<sup>5</sup> Companies that have carried out works in this area have been mentioned.

TABLE 11: PLATFORM FOR TRUCKS OUTSIDE THE PORT AREA

Project:	Platform for trucks parking outside the port area, San Antonio
Decision Maker:	San Antonio Port Company
Address:	Avenida Barros Luco N°1.623, Oficina 8-A, San Antonio
Contact:	Sub manager of Logistic Development Telephone: +(56) 35 258 6000
Description:	Construction and operation of a trucks parking platform outside the port area that provides parking service waiting for trucks heading to Puerto San Antonio, either to deliver export cargo or to remove import cargo. Its main function will be to regulate the frequency of the trucks, in order to optimize the operation of the road access system to the port.
Estimated CAPEX:	€ 34.0 Million
Opportunity Business:	Components:  1. Construction of the Logistic Truck Center 2. PCS 3. Operation and maintenance of logistic center
Project Schedule:	First semester 2021
Implementation Scheme:	Service contract
Tender Program:	To be defined it will be published in the link of tenders in progress ("Licitaciones en Curso") on the website of San Antonio Port Company (link: <a href="http://www.sanantonioport.cc.cl/index1.html">http://www.sanantonioport.cc.cl/index1.html</a> )
Bidder requirements:	To be defined
Award Criteria:	To be defined
Stakeholders:	<ul style="list-style-type: none"> <li>• Ministry of Transport and Telecommunications</li> <li>• Ministry of Finance</li> <li>• Municipality of San Antonio</li> <li>• Association of trucks owners and road transport companies</li> <li>• COLSA</li> </ul>

Competition:	Chilean companies such as <sup>6</sup> : <ul style="list-style-type: none"><li>• AZVI</li><li>• Belfi</li><li>• BESALCO</li><li>• Brotec</li><li>• Icafal</li></ul> Also, international construction companies.
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<sup>6</sup> Chilean construction companies that have carried out works in this area have been mentioned.

### 3.1.2. Port of Valparaíso

The following tables present a summary of the projects identified


TABLE 12: PORT COMMUNITY SYSTEM DESCRIPTION

Project:	Port Community System
Decision Maker:	Valparaíso Port Company
Address:	Errázuriz 25, Valparaíso
Contact:	Logistic Sub Management Telephone: +(56) 32 244 8811
Description:	Implementation of a logistics model for the synchronization of document, vehicles and cargo flows between ZEAL (cargo truck coordination center) and the port.
Figure:	
Term:	5 years
Estimated CAPEX:	€ 1.7 Million per year
Opportunity Business:	Components: <ul style="list-style-type: none"> <li>1. Hardware</li> <li>2. Software</li> <li>3. Operation maintenance</li> </ul>
Implementation Scheme:	Service contract

Tender Program:	<ul style="list-style-type: none"> <li>• Terms of Reference available: last quarter 2020</li> <li>• Bid award date: December 2020 – March 2021</li> <li>• Deadline for implementation: July 2021</li> <li>• It will be published in the link of tenders in progress (“Licitaciones en Curso”) on the website of Valparaíso Port Company: <a href="https://www.puertovalparaiso.cl/empresa/licitaciones_curso">https://www.puertovalparaiso.cl/empresa/licitaciones_curso</a></li> </ul>
Bidder requirements:	To be defined
Award Criteria:	To be defined
Stakeholders:	<ul style="list-style-type: none"> <li>• Ministry of Transport and Telecommunications</li> <li>• Ministry of Finance</li> <li>• Municipality of Valparaíso</li> </ul>
Competition:	<p>Companies such as<sup>7</sup>:</p> <ul style="list-style-type: none"> <li>• Sonda</li> <li>• Indra Sistemas</li> <li>• Everis</li> <li>• Crimsonlogic</li> <li>• Idom</li> <li>• Biznet</li> <li>• Advent Valencia Port</li> </ul> <p>Also international companies.</p>

<sup>7</sup> Companies that have carried out works in this area have been mentioned.

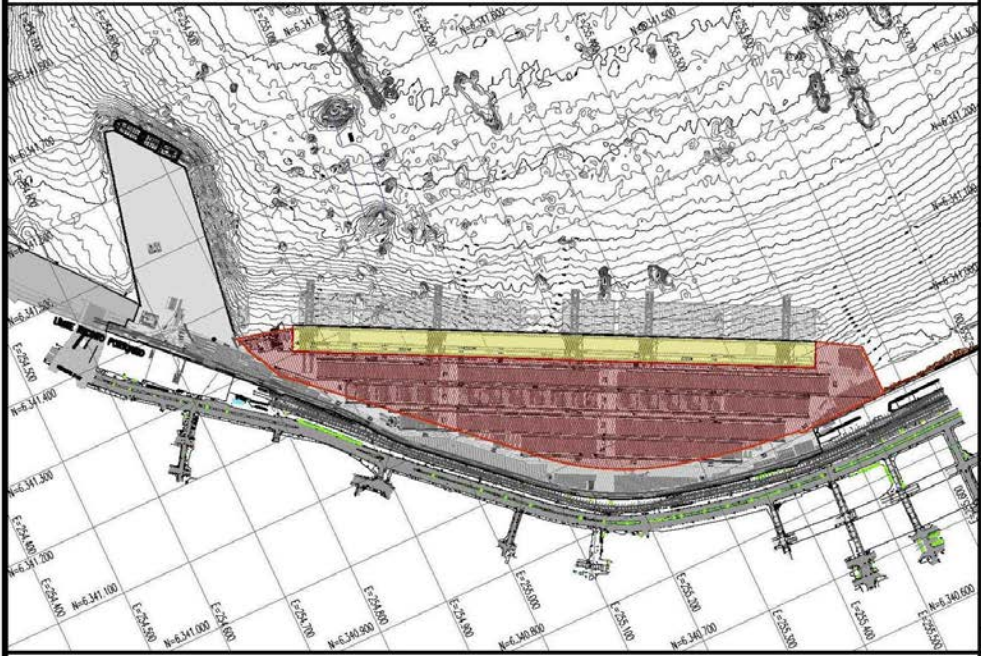
TABLE 13: TERMINAL 2 SHORT TERM CONCESSION DESCRIPTION

Project:	Terminal 2 Short Term Concession
Decision Maker:	Valparaíso Port Company
Address:	Errázuriz 25. Valparaíso
Contact:	Development and Concessions Sub Management Telephone: +(56) 32 244 8811
Description:	Valparaíso Port Company will grant to Concessionaire an exclusive concession to equip, operate, maintain and exploit the Terminal 2, including the right to charge tariffs for services provided at the terminal, subject to Concession Contract.
Figure:	
Term:	4 years
Estimated CAPEX:	€ 10.0 Million
Opportunity Business:	<p>Components:</p> <ol style="list-style-type: none"> <li>1. Mobile Equipment</li> <li>2. Port Community Systems</li> <li>3. Staff training services</li> </ol>
Implementation Scheme:	Service contract
Tender Program:	<p>Pending and it will be published in the link of tenders in progress ("Licitaciones en Curso") on the website of Valparaíso Port Company:  <a href="https://www.puertovalparaiso.cl/empresa/licitaciones_curso">https://www.puertovalparaiso.cl/empresa/licitaciones_curso</a></p>

Bidder requirements:	Pending
Award Criteria:	To be defined
Stakeholders:	<ul style="list-style-type: none"> <li>• Ministry of Transport and Telecommunications</li> <li>• Ministry of Finance</li> <li>• Public Companies System</li> <li>• DIRECTEMAR</li> <li>• National of Regional Environmental Assessment Service</li> <li>• Municipality of San Antonio</li> <li>• Ministry of Environment</li> <li>• Current Port Concessionaires</li> <li>• Antitrust Court</li> <li>• City Council</li> <li>• Maritime and port organizations</li> <li>• Community organizations</li> </ul>
Competition:	Chilean companies, such as mentioned on Table 2



TABLE 14: TERMINAL 2 LONG TERM CONCESSION DESCRIPTION

Project:	Terminal 2 Long Term Concession
Decision Maker:	Valparaíso Port Company
Address:	Errázuriz 25. Valparaíso
Contact:	Development and Concessions Sub Management Telephone: +(56) 32 244 8811
Description:	<p>Valparaíso Port Company will grant to Concessionaire an exclusive concession to equip, operate, maintain and exploit the Terminal 2, including the right to charge tariffs for services provided at the terminal, subject to Concession Contract.</p> <p>As defined, the concession would include the obligation to build a new 785m long pier and its 12.1 hectare back-up yard, including the corresponding equipment, as shown in the Figure.</p> <p>This project has a favorable Environmental Qualification Resolution granted by <i>Resolución Exenta N°039</i>, dated October 2, 2018, from the Valparaíso Region Environmental Assessment Service.</p>
Figure:	
Term:	30 years
Estimated CAPEX:	€ 420.0 Million (Definition Pending)
Engineering Studies	Detailed Engineering should be available

Opportunity Business:	<p>Components:</p> <ol style="list-style-type: none"> <li>1. Concessionaire</li> <li>2. Concessionaire Contractor, providing: <ul style="list-style-type: none"> <li>• Financing</li> <li>• Engineering Studies</li> <li>• Construction</li> <li>• Equipment</li> <li>• Port Community Systems</li> <li>• Staff training services</li> </ul> </li> </ol>
Project Schedule	2028 as defined
Implementation Scheme:	Port Concession contract
Tender Program:	Pending
Bidder requirements:	Pending
Award Criteria:	To be defined
Stakeholders:	<ul style="list-style-type: none"> <li>• Ministry of Transport and Telecommunications</li> <li>• Ministry of Finance</li> <li>• Public Companies System</li> <li>• DIRECTEMAR</li> <li>• National of Regional Environmental Assessment Service</li> <li>• Municipality of San Antonio</li> <li>• Ministry of Environment</li> <li>• Current Port Concessionaires</li> <li>• Antitrust Court</li> <li>• City Council</li> <li>• Maritime and port organizations</li> <li>• Community organizations</li> </ul>
Competition:	International companies and shareholders of port concessionaires indicated on Table 2

### 3.2. PORT CORRIDOR


#### 3.2.1. Railroad Projects


In the case of railways, the State Railways Company is developing an improvement in the cargo transportation capacity to and from the Port of San Antonio through a project in the contracting phase and another in the design phase, which are described later on the following tables. In addition, to the General Directorate of Concessions of the Ministry of Public Works, two railway project initiatives have been presented by private investors and with different routes: One associated with the development of a new railway for the transport of passengers between Santiago and Valparaíso, which it would include cargo transportation to Port of San Antonio and Port of Valparaíso, and the other corresponds to a new route for the transportation of cargo and passengers between Santiago and the Port of Valparaíso. The Government must decide which project will be executed once the one that is in the contracting phase by the State Railways Company has concluded.

The following tables present a summary of the projects identified:

#### State Railways Company Projects


TABLE 15: SANTIAGO – BARRANCAS RAILWAYS CORRIDOR AND BARRANCAS INTERMODAL TERMINAL DESCRIPTION

Project:	Santiago – Barrancas Railways Corridor and Barrancas Intermodal Terminal
Entity:	State Railways Company
Address:	Morandé 115, Santiago
Contact:	EFE Supply Management
Description:	The project contemplates the improvement of the rail corridor between Santiago (Alameda) and San Antonio (Barrancas), with an extension of 110.9 kilometers, to increase the capacity of rail freight transport between the Port of San Antonio and Santiago. It also considers the fitting out of an Intermodal Cargo Terminal in the Barrancas sector (Terminal Intermodal Barrancas), which includes fitting out a railway grid and stacking yard.
Figure:	<p><b>Improvement of the Alameda – Barrancas railway (continuous line)</b></p> 

	<p style="text-align: center;"><b>Terminal Intermodal Barrancas</b></p> 
<p>Estimated CAPEX:</p>	<p>€ 62 Million</p>
<p>Project Components:</p>	<p>From conversations with <i>EFE</i> management it is not clear whether the company would call for bids for the improvement of the road in conjunction with the construction of the Terminal Intermodal Barrancas or they would be separate bids. Even the improvement of the road could be carried out through various tenders.</p> <p>The project considers the following components</p> <ol style="list-style-type: none"> <li>1. Terminal Intermodal Barrancas (<i>TIB</i>)</li> </ol> <p>The maximum capacity if the new terminal will be 350,000 TEUs per year and its investment would imply €10 million (capacity increases 7 times the current capacity of this terminal that currently handles 50,000 TEUs per year of containerized cargo)</p> <p>The investment mainly considers the fitting out of a railway grid that allows the operation of the trains in the Terminal.</p> <p><i>EFE</i> would call the tender for the construction of this Terminal in the third quarter of 2020, to begin its construction in the first half of 2021 and operations in the second half of 2022.</p> <p>Regarding the operation of the Terminal, it is most likely that <i>EFE</i> will sign an agreement with the San Antonio Port Company, so that the latter company will operate it through the Central Port Terminal Concessionaire. The foregoing is subject to the Resolution issued by the Free Competition Tribunal (<i>TDLC</i>), before a request made by a rail freight transport operator.</p>

	<p>2. Improvement of the freight railway between Terminal Barrancas and Alameda</p> <p>The improvement of the railway between the <i>TIB</i> and Terminal Alameda is considered, to make its capacity compatible with the capacity of the Terminal Intermodal Barrancas, the railway will be repaired to allow average speeds of 65 km per hour and capacity of 25 tons per axis; bridges and other works will be reinforced; 1,250 meter long detours will be built, with an estimated investment of €52 million.</p>
Project Schedule:	<p>For both components of this project, the following schedule is considered:</p> <ul style="list-style-type: none"> <li>• Tender in the second semester of 2020</li> <li>• Execution during the year 2021 and the first semester of the year 2022</li> <li>• Operation in the second half of 2022</li> </ul>
Implementation Scheme:	<p>Whether the complete or separate project is tendered, the implementation scheme will be through a public works contract awarded by the State Railways Company under its regulatory framework.</p>
Tender Program:	<p><i>EFE</i> is expected to call a tender in the last quarter of 2020</p>
Bidder requirements:	<p>Generally, <i>EFE</i> asks bidders:</p> <ul style="list-style-type: none"> <li>○ Experience in similar works</li> <li>○ Economic requirements, such as equity and others</li> <li>○ Guarantees of seriousness of the Offer</li> </ul>
Award Criteria:	<ul style="list-style-type: none"> <li>• Exceed minimum evaluation threshold Technical Offer</li> <li>• Lower Value of Works</li> </ul>
Stakeholders:	<ul style="list-style-type: none"> <li>• State Railways Company</li> <li>• San Antonio Port Company</li> <li>• Municipality of San Antonio</li> <li>• National of Regional Environmental Assessment Service</li> <li>• Ministry of Environment</li> <li>• Community organizations</li> <li>• Truckers Guild</li> </ul>
Competition:	<ul style="list-style-type: none"> <li>• If only the construction of the <i>TIB</i> and the improvement of the railway are put out to tender the competitors correspond to local construction companies and foreign companies, mainly Spanish established in Chile.</li> <li>• If the construction and operation of the <i>TIB</i> is put out to tender, in addition to the construction companies, transport and logistics operators may participate.</li> </ul>

**TABLE 16: SANTIAGO – SAN ANTONIO (OUTER PORT) RAILWAYS CORRIDOR AND MODAL EXCHANGE CENTER (CIM)**  
DESCRIPTION

Project:	Santiago – San Antonio (Outer Port) Railways Corridor and Modal Exchange Center (CIM)
Entity:	State Railways Company
Address:	Morandé 115, Santiago
Contact:	EFE Supply Management
Description:	<p>The project contemplates the fitting out of a rail corridor that will transport a part of the containerized cargo that will be moved through the new San Antonio Outer Port, which is expected to begin operations at the end of this decade (2030). Likewise, it considers the enabling of a Modal Exchange Center in the vicinity of Santiago, on a land of about 100 hectares that <i>EFE</i> will acquire in the coming years.</p> <p>In a first stage, this railway corridor will be a railway line to provide services to a part of the cargo from <i>Terminal Mar</i> of the Outer Port.</p> <p>In a second stage, this rail corridor will be a double track to provide services to a part of the cargo from both Terminals of the Outer Port (<i>Terminal Mar and Terminal Tierra</i>).</p>
Figure:	<p><b>Construction of the second railway line San Antonio – Malloco (dotted line)</b></p> 
Estimated CAPEX:	€ 950 Million



<p>Project Components:</p>	<p><u>Stage 1:</u></p> <p>In this stage, the Corridor will operate on a single track, and will link the Modal Exchange Center with the rail grid of the <i>Terminal Mar</i> of the Outer Port. The main components of this stage are:</p> <ul style="list-style-type: none"> <li>• Rehabilitation of railway infrastructure to reach a circulation capacity of up to 22 daily trains in each direction, which includes the construction of new tunnels, diverters and reinforcement of other works.</li> <li>• Acquisition of trains with double stowage cars (or double stacking), when the demand so warrants.</li> <li>• Construction of the first stage of the <i>CIM</i></li> </ul> <p>An investment of close to € 190 million is estimated for this stage, where close to 65% corresponds to the habilitation of the <i>CIM</i>, and 35% to the rehabilitation of the railway.</p> <p><u>Stage 2:</u></p> <p>At this stage, the construction of a second railway line for the Corridor will be required, associated with the operation of the <i>Terminal Tierra</i> of the Outer Port. The main components of this stage are:</p> <ul style="list-style-type: none"> <li>• Construction of second railway line</li> <li>• Construction stage 2 of <i>CIM</i></li> </ul> <p>Once stage 2 is completed, the Corridor will operate with a double track, connecting the <i>CIM</i> with the rail grids of <i>Terminal Mar</i> and <i>Terminal Tierra</i> of the Outer Port. The infrastructure of the Corridor will then have the capacity for the circulation of up to 55 daily trains per direction.</p> <p>An investment of close to €760 million is estimated for this stage, where close to 95% corresponds to the construction of the second railway line, and the remaining 5% to the expansion of the <i>CIM</i>.</p>
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Project Schedule:	<p>Stage 1:</p> <p>The call for bids is expected to begin at the end of the first half of this decade, and its construction in the second half of this decade, to be operational by the end of the decade.</p> <p>Stage 2:</p> <p>The call for bids is expected in the middle of the next decade (2030) and its construction during the second half of the next decade to be operational by the end of the next decade.</p>
Implementation Scheme:	<p>EFE is still not clear on the implementation scheme of this project, but there is a high probability that it will be carried out in a public-private partnership scheme, which includes the construction and operation of the Corridor and the CIM.</p>
Tender Program:	<ul style="list-style-type: none"> <li>• For stage 1, a call for bids is estimated in the second half of 2024</li> <li>• For stage 2, it is estimated that a call for tenders is in the second half of 2034</li> </ul>
Bidder requirements:	<p>Generally, EFE asks bidders:</p> <ul style="list-style-type: none"> <li>• Experience in similar works</li> <li>• Economic requirements, such as equity and others</li> <li>• Guarantees of seriousness of the Offer</li> </ul>
Award Criteria:	<ul style="list-style-type: none"> <li>• Exceed minimum threshold for evaluation of Technical Offer</li> <li>• Lower Value of the Works, in the case of a traditional public work</li> <li>• Lower Value of economic variable, in the case of an implementation through a PPP scheme.</li> </ul>

Stakeholders:	<ul style="list-style-type: none"> <li>• State Railways Company</li> <li>• San Antonio Port Company</li> <li>• Municipality of San Antonio</li> <li>• National of Regional Environmental Assessment Service</li> <li>• Free Competition Tribunal</li> <li>• Ministry of Environment</li> <li>• Truckers Guild</li> <li>• Community organizations</li> </ul>
Competition:	<ul style="list-style-type: none"> <li>• If only the construction of the Corridor and CIM is tendered, the competitors correspond to local construction companies and foreign companies, mainly Spanish established in Chile. (See Table 3)</li> <li>• If the construction and operation of the Railway Corridor and CIM are tendered, in addition to the construction companies, transport and logistics operators may participate. (See Table 2)</li> </ul>

General Directorate of Concessions

TABLE 17: PRIVATE INITIATIVE TVS CONCESSION


Project:	Private Initiative N°463 "TVS Concession: Valparaíso – Santiago – San Antonio Train and Cargo Transfer Stations"
Entity:	General Directorate of Concessions, Ministry of Public Works
Address:	Merced 753, Santiago, Metropolitan Region, Santiago
Contact:	General Directorate of Concessions Telephone: +(56 02) 2449 7000
Description:	<p>The TVS Concession projects aims to implement a railway corridor, which proposes:</p> <ul style="list-style-type: none"> <li>• The provision and service of a passenger train that connects Valparaíso, Viña del Mar, Casablanca and Santiago.</li> <li>• Enabling railway infrastructure dedicated to transport cargo to the ports of San Antonio and Valparaíso.</li> <li>• The construction, operation and exploitation of an intermodal cargo transfer station in Santiago and 2 train and cargo adaptation stations at the accesses to the ports of San Antonio and Valparaíso, to complement the operation of the train.</li> </ul> <p>The project includes a cargo and passenger rail network of 231 km (203 km of new tracks and 28 km would correspond to the use and rehabilitation of existing <i>EFE</i> tracks). The foregoing in two trunk axes, North Trunk Axis and South Trunk Axis.</p>
Figure:	

Estimated CAPEX:	UF 58,567,340 (€1,883 Million)
Project Components:	<p>Construction:</p> <ol style="list-style-type: none"> <li>1. Construction of 4 passenger stations, Valparaíso, Viña del Mar, Casablanca and Santiago.</li> <li>2. Construction of 4 railways, two for cargo transportation and two for passenger transportation.</li> <li>3. Construction of a simple road in the Puangue sector</li> <li>4. Construction of two cargo transfer stations (Santiago Transfer Station and Terminals for Railway Adaptation and Order), and their associated services.</li> </ol> <p>Operation:</p> <ol style="list-style-type: none"> <li>1. Passenger Service</li> <li>2. Cargo Service</li> <li>3. Transfer Station Service (logistics services)</li> <li>4. Infrastructure maintenance</li> <li>5. Rolling Stock maintenance</li> </ol>
Project Schedule:	<ul style="list-style-type: none"> <li>• Call for bids to be defined</li> <li>• A construction period of 5 years is estimated</li> </ul>
Implementation Scheme:	<p>The Project will be implemented through the Public Works Concessions System of the Ministry of Public Works through which a Private Specific Purpose Company designs, finances, builds and operates the project in a long-term scheme (term to be defined with a maximum of 50 years).</p> <p>The project generates a series of business opportunities for the Awardee Group of the project, among which are:</p> <ul style="list-style-type: none"> <li>• Construction of the Works, which is implemented through an Engineering and Construction Contract with a related company of the Awardee Group.</li> <li>• Subcontracts and Provision of Services during the construction stage that are implemented through direct award or private bidding of Suppliers.</li> <li>• Subcontracts and Provision of Services during the operation stage that are implemented through direct award or private bidding of Suppliers.</li> </ul>

Tender Program:	<ul style="list-style-type: none"> <li>The project is in preliminary stage of studies within the framework of the Private Initiative presented to the MOP Concession System. It is estimated that the feasibility studies necessary to make the decision to execute the project will be completed by the end of 2021, and if the project is of public interest to the State of Chile, the bidding process could begin in 2023, considering the legal framework for Private Initiatives.</li> </ul>
Bidder requirements:	<p>Generally, the Ministry of Public Works asks the bidders of the Concession tender the following requirements to be able to participate:</p> <ul style="list-style-type: none"> <li>Equity Requirements (Minimum Capital, generally equivalent to 20% of the investment value)</li> <li>Guarantees of seriousness of the Offer (Between 3% and 5% of the investment value)</li> </ul> <p>The requirements for service providers corresponds to private criteria of each company awarded the concession.</p>
Award Criteria:	<p>The award of the Concession Tender has two stages:</p> <ul style="list-style-type: none"> <li>Qualification of the Technical Offer <ul style="list-style-type: none"> <li>Compliance with legal, financial and technical background</li> </ul> </li> <li>Lower value of the economic offer (Lower Present Value of the Total Revenues of the Concession)</li> </ul> <p>The concession is awarded to the Bidder who, having qualified technically, has the lowest value of the economic variable.</p> <p>The award criteria for service providers correspond to private criteria of each company awarded the concession.</p>

Stakeholders:	<p>Concession Project:</p> <ul style="list-style-type: none"> <li>• Ministry of Public Works</li> <li>• Ministry of Finance</li> <li>• Group promoting the Private Initiative: TVS Concesiones Ferroviarias SpA Consortium, made up of the national company Sigdo Koppers and the company China Railway Group Limited (CREC).</li> <li>• National of Regional Environmental Assessment Service</li> <li>• Financial Sector</li> <li>• Ministry of Environment</li> <li>• Community organizations</li> <li>• Truckers Guild</li> </ul> <p>Subcontracts:</p> <ul style="list-style-type: none"> <li>• Companies of the Awardee Group</li> </ul>
Competition:	<p>Concession Project:</p> <ul style="list-style-type: none"> <li>• In addition to the group promoting the Private Initiative, companies participating in the Concession industry, such as Developers / Operators; Construction companies, where the main players are international, mainly from Spain. (See Table 3)</li> </ul> <p>Subcontracts:</p> <ul style="list-style-type: none"> <li>• Companies providing the respective services</li> </ul>

TABLE 18: PRIVATE INITIATIVE – SANTIAGO – V REGION RAILWAY CONNECTION

Project:	Private Initiative N° 466 "Santiago – V Region Railway Connection"
Entity:	General Directorate of Concessions, Ministry of Public Works
Address:	Merced 753, Santiago, Metropolitan Region, Santiago
Contact:	General Directorate of Concessions Telephone: +(56 02) 2449 7000
Description:	<p>The Project would consider the following aspects:</p> <ul style="list-style-type: none"> <li>• Construction, rehabilitation and maintenance of sufficient railway infrastructure and provision of the superstructure that would be necessary to carry out passenger and cargo transport services between different points located in the Valparaíso Region and the Metropolitan Region.</li> <li>• Provision, operation and maintenance of railway material that would be necessary to carry out the transport of passengers between the stations and sectors to be determined;</li> <li>• It would have an operating license for the transport of goods by rail.</li> <li>• The eventual construction and operation of an intermodal rail terminal in the vicinity of Santiago.</li> </ul> <p>The route proposed in the Project would enable, through a new infrastructure, the historic route between Santiago and the vicinity of Til – Til, to cross the Central Mountain Range in the sector of the <i>La Dormida</i> slope through a tunnel of new construction, it would continue in the valley until it joins the current route of the railway used by <i>Merval</i> in the <i>El Salto</i> sector, with the possibility of doing it before in Limache. Finally, from <i>El Salto</i>, a tunnel will be built that accesses Viña del Mar and the Port of Valparaíso through two branches.</p>
Figure:	 <p><b>CONEXIÓN FERROVIARIA SANTIAGO - V REGIÓN</b> Trazado general indicando estaciones proyectadas ( en azul, posibles estaciones a estudiar )</p>



Estimated CAPEX:	UF 47,811,147 (€1,497 Million)
Project Components:	<p>Construction:</p> <ol style="list-style-type: none"> <li>1. Sector A: length of 14.4 km and would present configurations in surface platforms tunnel, with electrified double track.</li> <li>2. Sector B: length of 37.2 km and would present configurations on a surface platform, with electrified double track.</li> <li>3. Sector C: length of 60.4 km and would present configurations in surface platform and tunnel, with electrified double track.</li> <li>4. Sector D: length of 9.7 km and would present a configuration of two tunnel branches, with double electrified tracks.</li> <li>5. Construction of the railway lines</li> <li>6. Construction of a multimodal load transfer station</li> <li>7. Branch connection with the Port of Ventanas</li> <li>8. Branch Quintero – Ventanas</li> <li>9. Rungue Branch</li> </ol> <p>Operation:</p> <ol style="list-style-type: none"> <li>1. Operation and maintenance of railway lines</li> <li>2. Operation and maintenance of the Mapocho, El Salto, Viña del Mar and Valparaíso passenger stations (and those to be determined in the proposal phase)</li> <li>3. Purchase and maintenance of trains</li> <li>4. Passenger operation services between the cities of Santiago, Valparaíso, Viña del Mar, Quilpué and Villa Alemana (the latter two by combination at the El Salto station)</li> <li>5. Possibility of establishing passenger services in the towns of Lampa, Til-Til and Limache, and between the Arturo Merino Benitez Airport and the Valparaíso region</li> <li>6. Provision of circulation sectors for freight trains for current contracts and new contracts</li> <li>7. Cargo operations through the provision of an own operating license</li> <li>8. Rolling Stock maintenance</li> </ol>
Project Schedule:	<ul style="list-style-type: none"> <li>• Call for bids to be defined</li> </ul>
Implementation Scheme:	The Project will be implemented through the Public Works Concessions System of the Ministry of Public Works through which a Private Specific Purpose Company designs,

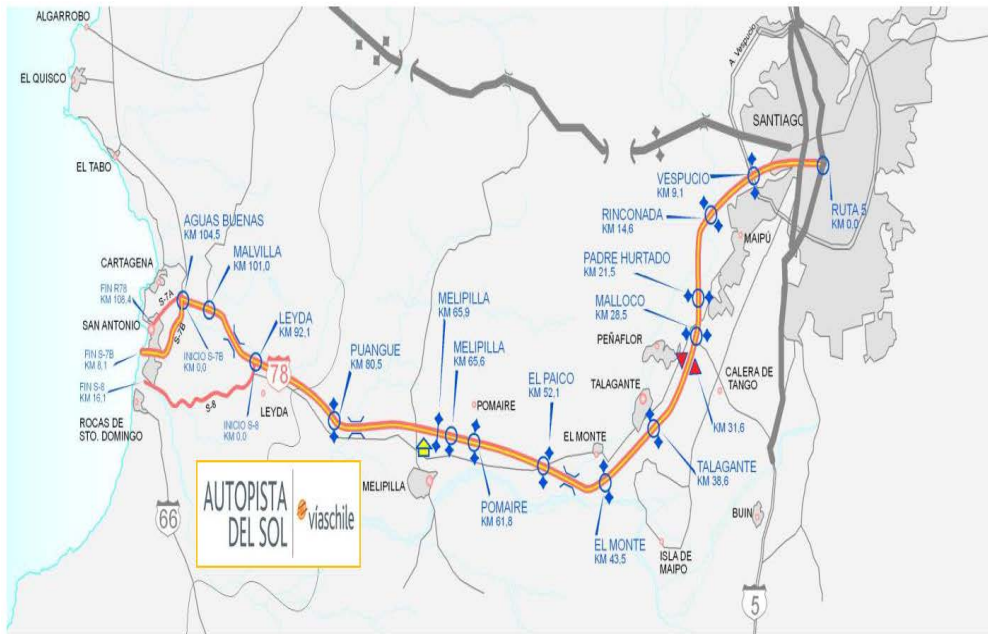
	<p>finances, builds and operates the project in a long-term scheme (term to be defined with a maximum of 50 years).</p> <p>The project generates a series of business opportunities for the Awardee Group of the project, among which are:</p> <ul style="list-style-type: none"> <li>• Construction of the Works, which is implemented through an Engineering and Construction Contract with a related company of the Awardee Group.</li> <li>• Subcontracts and Provision of Services during the construction stage that are implemented through direct award or private bidding of Suppliers.</li> <li>• Subcontracts and Provision of Services during the operation stage that are implemented through direct award or private bidding of Suppliers.</li> </ul>
Tender Program:	<ul style="list-style-type: none"> <li>• The project is in preliminary stage of studies within the framework of the Private Initiative presented to the <i>Ministry of Public Works</i> Concession System. It is estimated that the feasibility studies necessary to make the decision to execute the project will be completed by the end of 2021, and if the project is of public interest to the State of Chile, the bidding process could begin in 2023, considering the legal framework for Private Initiatives.</li> </ul>
Bidder requirements:	<p>Generally, the Ministry of Public Works asks the bidders of the Concession tender the following requirements to be able to participate:</p> <ul style="list-style-type: none"> <li>• Equity Requirements (Minimum Capital, generally equivalent to 20% of the investment value)</li> <li>• Guarantees of seriousness of the Offer (Between 3% and 5% of the investment value)</li> </ul> <p>The requirements to provide services as a contractor correspond to private criteria of each company awarded the concession.</p>
Award Criteria:	<p>The award of the Concession Tender has two stages:</p> <ul style="list-style-type: none"> <li>• Qualification of the Technical Offer <ul style="list-style-type: none"> <li>○ Compliance with legal, financial and technical background</li> </ul> </li> <li>• Lowest value of the economic award variable (such as tariffs or Present Value of the Total Revenues of the Concession)</li> </ul>


	<p>The concession is awarded to the Bidder who, having qualified technically, has the lowest value of the economic variable.</p> <p>The award criteria to provide services as contractor correspond to private criteria of each company awarded the concession.</p>
<p>Stakeholders:</p>	<p>Concession Project:</p> <ul style="list-style-type: none"> <li>• Ministry of Public Works</li> <li>• Ministry of Finance</li> <li>• Group promoting the Private Initiative: Iniciativas Privadas Consortium, Agencias Universales S.A. (AGUNSA), Fomento de Construcciones y Contratas (FCC) and Talgo trains.</li> <li>• Environmental Impact Assessment System</li> <li>• Financial Sector</li> <li>• Ministry of Environment</li> <li>• Community organizations</li> <li>• Truckers Guild</li> </ul> <p>Subcontracts:</p> <ul style="list-style-type: none"> <li>• Companies of the Awardee Group</li> </ul>
<p>Competition:</p>	<p>Concession Project:</p> <ul style="list-style-type: none"> <li>• In addition to the group promoting the Private Initiative, companies participating in the Concession industry, such as Developers / Operators; Construction companies, where the main players are international, mainly from Spain. (See Table 3)</li> </ul> <p>Subcontracts:</p> <ul style="list-style-type: none"> <li>• Companies providing the respective services</li> </ul>

### 3.2.2. Road Projects

The following tables present a summary of the projects identified:

TABLE 19: SANTIAGO - SAN ANTONIO HIGHWAY CONCESSION, ROUTE 78 DESCRIPTION

Project:	Santiago - San Antonio Highway Concession, Route 78
Entity:	General Directorate of Concessions, Ministry of Public Works
Address:	Merced 753, Santiago, Metropolitan Region, Santiago
Contact:	General Directorate of Concessions Telephone: +(56 02) 2449 7000
Description:	<p>Corresponds to the improvement of 131.5 km of the current route that connects Santiago with the Port of San Antonio, in addition to its extension to third lanes of the sections between Talagante – Melipilla and Malvilla up to San Antonio.</p> <p>The work preliminarily considers the rehabilitation of existing roads, expansion to third lanes, fitting out of new bridges (Manuel Rodriguez) and sections of service roads. Consider the implementation of the electronic toll collection system for sections to replace the current toll plazas.</p>
Figure:	

	
<p>Estimated CAPEX:</p>	<p>UF 12,797,463 (€ 453 Million)</p>
<p>Project Components:</p>	<p><u>Components:</u></p> <p>The project considers the following components that can be subcontracted by the Concessionaire Company awarded the Bid:</p> <p>Engineering:</p> <ol style="list-style-type: none"> <li>1. Detailed engineering</li> </ol> <p>Construction:</p> <ol style="list-style-type: none"> <li>1. Construction of road infrastructure (Rehabilitation of existing infrastructure, extension to third lanes, links and overpasses), including supply of asphalt and concrete</li> <li>2. Improvement of Public Lighting</li> <li>3. Construction of new bridges</li> <li>4. Implementation of Electronic Toll Collection Technology</li> <li>5. Implementation of Intelligent Transportation Systems /dynamic signage, SOS posts, Operational Control Center</li> <li>6. Road safety improvement</li> <li>7. Supply of new lighting and data transmission systems</li> </ol> <p>Operation:</p> <ol style="list-style-type: none"> <li>1. Maintenance of the Road Infrastructure and structures</li> </ol>

	2. Maintenance of Electronic Toll Collection System and Intelligent Transportation Systems
Project Schedule:	<ul style="list-style-type: none"> <li>• Call for tenders fourth quarter 2020</li> <li>• Construction of works in the second half of 2023 (construction period 3 – 4 years)</li> <li>• Operation and Maintenance 20 – 25 years</li> </ul>
Implementation Scheme:	<p>The Project will be implemented through the Public Works Concessions System of the Ministry of Public Works through which a Private Specific Purpose Company designs, finances, builds and operates the project in a long-term scheme (20 to 30 years).</p> <p>The project generates a series of business opportunities for the Awardee Group of the project, among which are:</p> <ul style="list-style-type: none"> <li>• Construction of the Works, which is implemented through an Engineering and Construction Contract with a related company of the Awardee Group.</li> <li>• Subcontracts and Provision of Services during the construction stage that are implemented through direct award or private bidding of Suppliers.</li> <li>• Subcontracts and Provision of Services during the operation stage that are implemented through direct award or private bidding of Suppliers.</li> </ul>
Tender Program:	<p>The estimated Bid Program for the award of the Concession is as follows:</p> <ul style="list-style-type: none"> <li>• Concession call for tender date: fourth quarter of 2020</li> <li>• Date of receipt of technical offers: second semester of 2021</li> <li>• Date of opening of economic offers: second semester of 2021</li> <li>• Concession award decree: second semester of 2021</li> </ul>
Bidder requirements:	<p>Generally, the Ministry of Public Works asks the bidders of the Concession tender the following requirements to be able to participate:</p> <ul style="list-style-type: none"> <li>• Equity Requirements (Minimum Capital, generally equivalent to 20% of the investment value)</li> <li>• Guarantees of seriousness of the Offer (Between 3% and 5% of the investment value)</li> </ul> <p>The requirements to provide services a contractor corresponds to private criteria of each company awarded the concession.</p>
Award Criteria:	The award of the Concession Tender has two stages:

	<ul style="list-style-type: none"> <li>• Qualification of the Technical Offer             <ul style="list-style-type: none"> <li>◦ Compliance with legal, financial and technical background</li> </ul> </li> <li>• Lower value of the economic offer (Lower Present Value of the Total Revenues of the Concession)</li> </ul> <p>The concession is awarded to the Bidder who, having qualified technically, has the lowest value of the economic variable.</p> <p>The award criteria to provide services as a contractor correspond to private criteria of each company awarded the concession.</p>
Stakeholders:	<p>Concession Project:</p> <ul style="list-style-type: none"> <li>• Ministry of Public Works</li> <li>• Ministry of Finance</li> <li>• National of Regional Environmental Assessment Service</li> <li>• Financial Sector</li> <li>• Ministry of Environment</li> <li>• Community organizations</li> <li>• Current Concessionaires</li> </ul> <p>Subcontracts:</p> <ul style="list-style-type: none"> <li>• Companies of the Awardee Group</li> </ul>
Competition:	<p>Concession Project:</p> <ul style="list-style-type: none"> <li>• Companies participating in the Concession industry, such as Developers / Operators; Construction companies, where the main players are international, mainly from Spain. (See Table 3)</li> </ul> <p>Subcontracts:</p> <ul style="list-style-type: none"> <li>• Companies providing the respective services</li> </ul>



TABLE 20: SANTIAGO - VALPARAÍSO HIGHWAY CONCESSION, ROUTE 68 DESCRIPTION

Project:	Santiago - Valparaíso Highway Concession, Route 68
Entity:	General Directorate of Concessions, Ministry of Public Works
Address:	Merced 753, Santiago, Metropolitan Region, Santiago
Contact:	General Directorate of Concessions Telephone: +(56 02) 2449 7000
Description:	<p>It corresponds to the improvement of the current Route 68, in the section between the Pajaritos Metro station, in the Pudahuel commune, Santiago, and the La Pólvora link located in the western sector of Placilla, Valparaíso, with a total extension of 99.30 km.</p> <p>The project considers the expansion to third lanes up to the Lo Prado toll (approximately km 17) and the necessary improvement so that the route of the road is consistent with the speed of circulation. From km 17 to km 99.80, a new carriageway with two tracks will be projected parallel to and adjacent to the current route.</p> <p>Likewise, the development of two new tunnels in Lo Prado and Zapata and the replacement of the bridges over the Mapocho River and the Pudahuel estuary are contemplated.</p> <p>Added to the above is the study of the continuity of existing local streets and the implementation of new sections of theses, rehabilitation of pavements where necessary, new links, rectifications of the route, return points and walkways with universal accessibility standards.</p>

Figure:



Estimated CAPEX:

UF 18,847,754 (€ 670 Million)

Project Components:

Components:

	<p>The project considers the following components that can be subcontracted by the Concessionaire Company awarded the Bid:</p> <p>Engineering:</p> <ol style="list-style-type: none"> <li>1. Detail engineering</li> </ol> <p>Construction:</p> <ol style="list-style-type: none"> <li>1. Construction of the road infrastructure (Rehabilitation of the existing infrastructure; New two-lane carriageway; Extension to third lanes; links and overpasses), including supply of asphalt and concrete</li> <li>2. Repair of current tunnels Lo Prado and Zapata</li> <li>3. Construction of new tunnels Lo Prado (2.3 km) and Zapata (1.8 km)</li> <li>4. Improvement of Public Lighting</li> <li>5. Construction of new bridges</li> <li>6. Implementation of Electronic Toll Collection System</li> <li>7. Implementation of Intelligent Transportation Systems (dynamic signage, SOS posts, Operational Control Center)</li> <li>8. Supply of new lighting and data transmission systems</li> </ol> <p>Operation:</p> <ol style="list-style-type: none"> <li>1. Maintenance of Road Infrastructure and structures</li> <li>2. Tunnel maintenance (current and new)</li> <li>3. Maintenance of Electronic Toll Collection System and Intelligent Transport Systems for roads and tunnels</li> </ol>
<p>Project Schedule:</p>	<ul style="list-style-type: none"> <li>• Call for tenders fourth quarter year 2021</li> <li>• Construction of works in the second half of 2024 (construction period 4-5 years)</li> <li>• Operation and Maintenance 20-25 years</li> </ul>
<p>Implementation Scheme:</p>	<p>The Project will be implemented through the Public Works Concessions System of the Ministry of Public Works through which a Private Specific Purpose Company designs, finances, builds and operates the project in a long-term scheme (20 to 30 years).</p> <p>The project generates a series of business opportunities for the Awardee Group of the project, among which are:</p>

	<ul style="list-style-type: none"> <li>• Construction of the Works, which is implemented through an Engineering and Construction Contract with a related company of the Awardee Group.</li> <li>• Subcontracts and Provision of Services during the construction stage that are implemented through direct award or private bidding of Suppliers.</li> <li>• Subcontracts and Provision of Services during the operation stage that are implemented through direct award or private bidding of Suppliers.</li> </ul>
Tender Program:	<p>The estimated Bid Program for the award of the Concession is as follows:</p> <ul style="list-style-type: none"> <li>• Date of call for bids: fourth quarter of 2021</li> <li>• Date or receipt of technical offers: first semester of 2022</li> <li>• Date of opening of economic offers: second semester of 2022</li> <li>• Award decree: second semester 2022</li> </ul>
Bidder requirements:	<p>Generally, the Ministry of Public Works asks the bidders of the Concession tender the following requirements to be able to participate:</p> <ul style="list-style-type: none"> <li>• Equity Requirements (Minimum Capital, generally equivalent to 20% of the investment value)</li> <li>• Guarantees of seriousness of the Offer (Between 3% and 5% of the investment value)</li> </ul> <p>The requirements to provide services as a contractor corresponds to private criteria of each company awarded the concession.</p>
Award Criteria:	<p>The award of the Concession Tender has two stages:</p> <ul style="list-style-type: none"> <li>• Qualification of the Technical Offer <ul style="list-style-type: none"> <li>○ Compliance with legal, financial and technical background</li> </ul> </li> <li>• Lower value of the economic offer (Lower Present Value of the Total Revenues of the Concession)</li> </ul> <p>The concession is awarded to the Bidder who, having qualified technically, has the lowest value of the economic variable.</p>

	The award criteria to provide services as a contractor correspond to private criteria of each company awarded the concession.
Stakeholders:	<p>Concession Project:</p> <ul style="list-style-type: none"> <li>• Ministry of Public Works</li> <li>• Ministry of Finance</li> <li>• National of Regional Environmental Assessment Service</li> <li>• Financial Sector</li> <li>• Ministry of Environment</li> <li>• Community organizations</li> <li>• Current Concessionaires</li> </ul> <p>Subcontracts:</p> <ul style="list-style-type: none"> <li>• Companies of the Awardee Group</li> </ul>
Competition:	<p>Concession Project:</p> <ul style="list-style-type: none"> <li>• Companies participating in the Concession industry, such as Developers / Operators; Construction companies, where the main players are international, mainly from Spain. (See Table 3)</li> </ul> <p>Subcontracts:</p> <ul style="list-style-type: none"> <li>• Companies providing the respective services</li> </ul>

### 3.3. TRAINING AND EDUCATION

In general, in the country there is a field for the development of collaboration in the educational field related to updating the methodologies and contents of educational plans, especially in relation to the training of middle-level professionals and specialized labor.

In the specific field of logistics, there is the need to train equipment operators such as cranes of various types, and truck drivers; personnel specialized in the operation and maintenance of automated systems; logistics process managers; specialists in control and inspection tasks; planning and operation of rail transport systems; warehouse administration and management; environmental management of logistics systems; experts in port security (security and safety), customs processes, sanitary processes; etc.

At the company level, training possibilities can be carried out using legal instruments to support job training, which include tax incentives for companies. Training is carried out by organizations called OTEC (Technical Training Organization) that are registered with SENCE (National Training and Employment Service).

Another alternative is through the curricular meshes that are applied at the intermediate level, through professional technical education, whose design depends on the educational project of each establishment. The specialties that can be taught are defined by the Ministry of Education. In it there is a mention in logistics; but located within the Administration sector.

The other possibilities are based in organizations such as CFT (Technical Training Centers), and IP (Professional Institute) linked to Universities. The university offer in undergraduate careers specifically linked to logistics does not exist. Generally, civil transport and industrial engineering orient, in part, their curricular mesh towards logistics training. Rather, they use postgraduate degrees for the training of specialists

In order to face these opportunities, the existence of an organization that plans and develops a strategy is required to use the mechanisms that the Chilean state offers in the field of professional training; but it is also capable of capturing demands for training, research and collaboration with companies in sectors where logistics plays a significant role in efficiency.

The following table summarizes the training and educational opportunities and the main shareholders for training and education.

TABLE 21: TRAINING AND EDUCATION

Project:	Training and Education
Alternatives	1. <b>Offer training courses to companies.</b> In the country there are sectors where logistical difficulties have a strong impact on the efficiency of production systems, such as aquaculture, mining, agriculture and trade, among others.

	<p>2. <b>Support the formulation of educational models aimed at the training of specialized labor in logistics work in middle-level educational establishments.</b> The establishments of secondary education have relative independence to formulate their educational projects. The lack of offers in logistics training in vocational technical education may constitute a possibility to develop plans that respond to an updated orientation of this specialty. In addition to generating links between the community of the Netherlands and that of the country in other areas, such as, for example, cultural.</p> <p>3. <b>Share the Dutch experience in the logistics field with the development plans of universities interested in the training of specialized logistics engineers.</b> A relationship of this nature can open spaces for collaboration between Chilean and Dutch universities, for example, with those located in the north of the country regarding logistics in mining. This through the exchange of teachers, internships and development of applied research.</p>
Stakeholders:	<ul style="list-style-type: none"> <li>• Ministry of Education</li> <li>• Universities</li> <li>• Professional Institutes linked to universities</li> <li>• Technical Training Centers linked to universities</li> <li>• Technical Training Organization</li> <li>• National Training and Employment Service</li> <li>• State-owned ports companies</li> <li>• Port Concessionaires/Terminal Operators</li> <li>• Private ports</li> <li>• State Railway Company</li> </ul>



#### 4. K2K & G2G

In the diagnosis developed by the Ministry of Transport and Telecommunications (“MTT”), the need to close information, coordination and innovation gaps is recognized to generate the conditions that allow Chile address the new challenges facing logistics in the country. To overcome these challenges, the Chilean government recognizes the knowledge and experience that the Kingdom of the Netherlands has in terms of sustainable logistics development, as demonstrated by the Memorandum of Understanding that is being prepared between the embassy and the MTT, as a continuation of the previous Letter of Intent in place between the two governments, as well as in the launch of the Conecta-logistics foundation that aims to promote the efficiency, competitiveness, productivity and sustainability of the logistics sector, through the implementation, promotion and coordination of research and development, technology transfer and innovation, technological diffusion and generation of information to support public and private decision-making.

The Netherlands is characterized by a culture of innovation, systems thinking, a focus on sustainability and a high level of education. These concepts are also widely embedded in the ports & logistics solutions offered by the Dutch companies and the Dutch way of working. In order to align knowledge levels and the valuation of these concepts between Chile and The Netherlands it is suggested that G2G and K2K activities on these topics with the relevant stakeholders would be beneficial as support for Dutch companies wishing to enter the Chilean market. These activities could be focused on the following topics: Sustainability, Logistics Corridor, Tender Procedures and Education, the latter in particular looking at the worldwide digitalization trends and the higher level of modernization foreseen for both the San Antonio and the Valparaiso port expansions.

## 5. RISK AND CHALLENGES

### 5.1. RISK ANALYSIS OF THE COUNTRY DEVELOPMENT

One important risk factor is the growth rate and financial strength of the country as this drives demand and imported/exported volumes and available funds for investments. Chile has experienced social unrest since October 2019 followed by the Covid-19 pandemic since early 2020. Both matters are still present at the date of writing this report. The social unrest had led to certain measures taken by the government in different sectors such as pensions, health care, etc. and on a new constitution, as well as a presidential election. Because of the pandemic the country has been in lockdown situation affecting the economy and has also required investments from the government in healthcare, infrastructure and funds to protect household incomes and protect in particular the SMEs. As a result of the pandemic, public debt could reach 45% of GDP (at some point it did not exceed 5%). For 2020 a drop in GDP is estimated between -5 and -7%. Some estimates of unemployment indicate that it could exceed 20%.

Although GDP projections for next year indicate that there could be a recovery similar to the level of decline, this will depend on the behavior of the pandemic in the world and in the country, and on the development of the social unrest. The requirement of public resources to address the social consequences caused by the virus and the social unrest could cause a certain delay in the project. However, the Government plans to recover the economy include the acceleration and expansion of public investments, which in part involves projects linked to the logistics-port corridor of the Valparaíso Region, particularly in relation to the railway field.

Regarding the larger port investments such as the Outer Port of San Antonio and the new concessions of the Santiago-San Antonio and Santiago-Valparaíso routes, given that these account for long-term projections, they have continued their normal development, and in the case of road projects, these will be called for bids in the short term as announced by the competent authorities.

### 5.2. RISK ANALYSIS OF NEW PORT PROJECT OF SAN ANTONIO

This analysis considers that the demand to expand port capacity, in a long-term vision, is absolutely necessary to carry it out. The reasons are concentrated in the consequences that derive from the country's growth strategy, basically oriented for an opening of the economy to foreign trade which deepened with the return to democracy, starting in the nineties, with the signing of various trade agreements that cover countries or groups of countries located in the main markets of the world and maintained over time.

In the port area, the consequences of this strategy have resulted in a growth in cargo transferred by means of containers, which, in the last decade, reached an annual rate of 4%. Along with this, shipping companies have increased the movement of larger ships. Both factors, among others, in the opinion of the last four governments, represent a very important challenge for the efficiency of the port system and a competitive risk for the country, especially with respect to ports located in the central zone.

At the moment, the development of the project does not show evidence to affirm that the government decision to carry out this project could be modified. On the contrary, the preparation of the detail engineering of breakwater and the basic engineering of the terminals has been finished, the approval process of the Environmental Impact Study has begun before the competent body, consultations have been carried out with the Antitrust Court in charge of regulating the conditions of private participation, especially on standards of vertical or horizontal integration, among others.

However, some pending definitions should be taken into account, such as the following:

#### *Definition of the business model*

According to the information gathered in the interviews carried out, the defined business model involves three independent tenders: one associated with the construction of the breakwater and the other two with the concession of each of the two terminals that make up the project. However, it was also pointed out in the meetings that in the opinion of the Ministry of Finance the construction of the breakwater should be put out to tender in conjunction with the concession of the first terminal.

This decision is relevant due to the effects that could be generated in the system's tariffs, in the generation of a greater or lesser incentive for private participation due to the existence of possible state subsidies, etc.

In the case of the rail freight corridor, it is pending to decide which of the three options that are being studied for its development will be implemented: one of the two presented to the public works concession system or that of the State-owned railway company.

#### *Reaction of current port operators*

In the current system there are three terminals concessionaires that compete with each other: *Terminal Pacífico Sur S.A.* or "TPS", which operates Terminal 1 of Valparaíso Port, as well as *Puerto Central S.A.* or "DP World San Antonio", that operates *Costanera-Espigón Terminal* and *San Antonio Terminal Internacional S.A.* or "STI" that operates *Molo Sur Terminal*, both located in San Antonio Port. In addition, there are three other terminals in the Biobío Region, some 600 km to the south of Valparaíso Region, they are Coronel, Lirquén and San Vicente, which serve specialized container ships and whose area of influence, in part, is shared with the terminals. But they also share the same owners: TPS with Coronel; STI with San Vicente and *Puerto Central S.A.* with Lirquén.

The question that arises is how these terminals will react to the emergence of additional competition, given that the new offer constitutes a discreet increase, which will force the new concessionaire to try to capture cargo, which at that time would be being dispatched by one of the other terminals. Undoubtedly, its efforts would be focused on improving their services levels.

### *Processing of the environmental permit*

The start of the works is not possible without having an approved Environmental Qualification Resolution. In the case of Outer Port, San Antonio Port Company submitted the Environmental Impact Study to the evaluation system and will be responsible to obtain the Environmental Qualification Resolution ("RCA").

During the study analysis process, the different observations of the public and private actors are gathered in documents called Addendum and sent to the Company for resolution.

The experience shown by other projects of similar nature indicates that, in their processing, all the levels of actions provided in the Law are presented to the respective courts. This means that their processing would last about 3 years, as long as the observations that could arise during its processing.

### **5.3. RISKS RELATED TO THE PORT EXPANSION OF VALPARAÍSO**

The expansion project of Terminal 2 of Valparaíso Port also has the RCA. Therefore, the environmental risks, together with their mitigation, compensation and monitoring measures, among others, would be known. Nevertheless, it is possible to identify the following factors:

#### *Evolution of demand*

The development of the San Antonio Outer Port will impact the bidding processes for the Terminal 2 expansion project, unless there is a volume that justifies the operation of both projects, a matter that does not appear as probable.

#### *Timing of the Outer Port of San Antonio*

This project is in the process of environmental qualification where problems could arise whose solutions require time, as has been the experience in approval processes of a similar nature. This factor would be a positive element for the development of the Terminal 2 expansion project, as long as it is capable of resolving the objections that have arisen in its own implementation, associated with the solution of the doubts that have arisen from some sectors of the community.

#### *Relationship with the City*

In certain sectors of the city (municipality and certain social organizations) there is criticism regarding the effects that could arise due to the operation of the Terminal 2 expansion project. To find a solution, the Company's Board of Directors established a coordination table with several public and private agents, including the municipality itself, without any concrete results being known so far. This path inexorably leads to more time in the design of its concession process, while PGE progresses in its. In addition, it should be taken into account that in April of next year municipal elections will be held, the results of which could modify the current position of the local government.

#### *Reaction of current operators*

Although this factor will affect the entire system, it must be taken into account that current port operators have margins to increase their offer, modifying their management policies, such as increasing the number of cranes per ship, which would translate into a competitive factor that could affect the timing, postponing the adjudication processes of Valparaiso Port Company.

### *Business Model*

The current conditions of this terminal do not allow it to be the competence of specialized container terminals; but it can be in the case of break bulk cargo. In this sense, the development of the concession process for the Outer Port of San Antonio and the specialization of the other terminals only in serving containers, could allow Terminal 2 to be an option that captures that demand in its current condition. In addition, it could also happen that the attention of larger ships (350m length or more) in the specialized container terminals could displace the smaller ships to other berth, in which case, Terminal 2 could become a project of smaller scope compared to what was initially seen. In other words, that it could be transformed into a terminal destined to serve ships specialized in serving fractional loads such as iron, project, etc. and small ships with container cargo.

## 6. COMMENTS AND SUGGESTIONS

According to the analysis presented in the previous points, the Consultant highlights the following suggestions:

- a) Regarding the market scan of business opportunities in the development of ports and corridors of Valparaíso Region, it is expected that most of the key projects identified will be carried out through concessions (PPP contracts) granted in open tenders by Chilean public entities, so it is highly recommended that Dutch companies initiate approaches with the players that are identified as potential bidders of these projects, to make known their services and products in order to achieve alliances or advance in possible future subcontracting.

In this respect, it is very important to take into consideration that the contracts for the execution of the main projects of the logistic-port corridors include a large number of works, tasks, and various activities that will be the responsibility of the private companies that are awarded them for which they will require a wide range of supplies and specialized advice.

Obviously, the foregoing does not prevent Dutch companies from being able to offer their services to the successful bidders, but we consider that it is very important that they are known to the bidders at an early stage so that they take into account the characteristics of their services or products in the analysis phase of the projects and preparation of offers.

To do this, it is essential to identify the likely bidders at the beginning of each bidding process, as well as the eventual main subcontractors.

Undoubtedly, a strategy that would help greatly to make these potential businesses more likely is to participate in the main contracts forming part of the concession companies, which could be achieved through the incorporation of Dutch investment funds.

- b) In general terms, the business opportunities in Chile related to the logistics-port corridor of the Valparaíso Region can be grouped into three main categories:
  - i) The first, understood as options to provide services and goods by Dutch companies to public entities and private companies that operate or will operate in the local market (whether with national, foreign, or mixed capital), which may or may not mean establishing an office in Chile.

- ii) The second is the possibility for Dutch companies to start new businesses related to the logistics sector in Chile and/or expand the current offer by settling in the country.
- iii) The third corresponds to financial investments, either as a direct investment through equity participation in the private companies in charge of developing the projects or through the granting of loans to their developers.

We estimate that Dutch companies in the first two categories could require the support of public entities in the Netherlands in charge of promoting business abroad, in order to facilitate exploration and entry into the Chilean market, to participate in the execution of various projects belonging to the logistics-port corridor of the Valparaíso Region that are in different stages of development. Please refer to the Annex for more details on the requirements for market entry.

- c) Giving continuity to the collaboration agreements between government entities of the Kingdom of the Netherlands and Chile in the logistics field, in addition to the benefits for shared public interests, could be an effective way to promote the insertion of Dutch companies in the country.

To reinforce the above, it is suggested to hold some kind of joint event between both governments, open to the multiple actors of the Chilean port, rail, and logistics sector, to publicize the experience of the Netherlands on this matter. This can then be complemented with a program of seminars on more specific topics related to the indicated industrial sectors, with the participation of Dutch and Chilean companies and experts.



## ANNEXES

## ANNEX 1: LEGAL AND REGULATORY FRAMEWORK

### 1. REGULATORY FRAMEWORK FOR FOREIGN INVESTMENT

As is internationally recognized, Chile is a country widely open to foreign investment and, to the possibility that foreign persons, whether they are natural persons or companies, can carry out business in the country throughout the wide range of possibilities offered by the economy, without restrictions or differentiated treatment due to being foreigners.

In relation to larger foreign investments, the Chilean legal system considers a regulatory statute especially dedicated to their promotion and to facilitate it contained in Law 20.848 of 2015 on Foreign Direct Investment. This Law defines direct foreign investment any transfer to Chile of foreign capital or assets owned or controlled by a foreign investor, for an amount equal to or greater than US \$ 5,000,000, that is made through the transfer of foreign currency from free convertibility, contribution of physical assets, reinvestment of profits, capitalization of credits, transfer of technology capable of being capitalized or of credits associated with foreign investment from related companies. Likewise, qualify as foreign direct investment any investment that is transferred to the country, with a minimum of US \$ 5,000,000, and that materializes through the acquisition or participation in the equity of a company or in the capital of the company receiving the investment, incorporated in Chile, that grants it control of at least 10% of the voting rights of the company's shares or social rights.

In this way, a foreign investor is any natural or legal person incorporated abroad, not resident or domiciled in Chile, who transfers capital to Chile under the indicated terms. The following are the rights of foreign investors: (i) to remit abroad the transferred capital and the net profits generated by their investment, to the extent that they have complied with their tax obligations; (ii) access to the formal exchange market to settle or obtain foreign currency; and (iii) non-discrimination regarding the applicable legal regime with respect to national investors. To exercise these rights, foreign investors do not need authorizations from regulatory entities of foreign investment. The Foreign Investment Promotion Agency (Invest Chile) created by the same law, is authorized to issue foreign investor certificates when requested. Likewise, Invest Chile provides guidance and support to foreign investors to make their investments in the country.

On the other hand, there is the so-called Chapter XIV of the Compendium of Exchange Regulations of the Central Bank of Chile, which applies to investments of less than USD 5,000,000 and over USD 10,000. It establishes that all credits, deposits, investments and capital contributions of more than US \$ 10,000, made through the formal market, must be reported to the Central Bank.

In accordance with this chapter of regulations, any act, convention or contract by virtue of which a party acquires, with foreign currency from abroad or with the product of its liquidation in the country, the domain, or the right to use, be the holder or mere holder of movable securities, commercial papers, shares, social rights and any other class of titles or values, or real or personal property. Thus, pursuant to this same regulation, investments may be made through the transfer of shares or social rights in companies incorporated abroad, and the corresponding information must be delivered to the Central Bank of Chile. In this case, the remittance of capital, dividends or profits must always be made in foreign

currency. Likewise, investments are considered to be the acquisition of shares of public limited companies or shares of Investment Funds, domiciled in Chile, whose purpose is to convert them into representative securities, which are traded in foreign markets. The form that said titles will take, as well as the way in which they are traded or listed, will be governed by the regulations of the country in which such acts are carried out; and the corresponding conversion of titles to shares or quotas, or vice versa, by the provisions agreed upon in accordance with Chilean law.

## 2. REQUIREMENTS TO START A BUSINESS IN CHILE AND PARTICIPATE OF BUSINESS OPPORTUNITIES

As was said, any natural or legal person (legal entity) can start their own business in Chile by following the corresponding legal steps, many of which can be done electronically through the websites of the respective Chilean public bodies.

The first step for a foreign person (natural or legal) to formalize their business or invest in Chile is to obtain a Single Tax Number (usually named *RUT* for *Rol Unico Tributario* in Spanish) from the Internal Revenue Service (usually named *SII* for *Servicio de Impuestos Internos* in Spanish). The *RUT*, in addition to being a tax identification number, is necessary for many aspects of life in Chile, from opening a bank account to renting a property. A provisional *RUT* is assigned to foreigners who come to Chile to do business or invest while establishing an entity in Chile.

In turn, non-residents can operate in Chile through any of the following ways:

i. Appointing a legal representative in Chile.

A representative acts on the basis of a mandate that the non-resident investor confers on a resident person or entity. The representative acts in the name and risk of the foreign person to carry out one or more business transactions.

ii. Creating an agency or branch of a foreign company in Chile.

A foreign company must designate a legal representative to establish the agency. The legal representative should legalize some documents, and at the same time must sign a public deed in the name of the company, which within a period of 60 days must register an extract in the Commercial Registry in Chile, and publish said extract in the Official Gazette.

iii. Creating a company in Chile.

In Chile, companies can be constituted by foreigners or Chileans, there is no limitation, they only have to comply with the requirement of appointing a representative who is domiciled in the country, and they can have any profit object as long as it is not contrary to the law. Only in some cases is it required that companies be subject to certain conditions, as occurs, for example, in the case of public works concession companies or port concessions granted by the State owned port company, and also as is the case with the creation of banking entities and insurance companies.

Consistent with the aforementioned and going directly to the main projects associated with the logistics-port corridor, there is no type of normative or regulatory barrier for the participation of foreign companies. In fact, when it comes to the development of investment projects called by state-owned enterprises (port companies, *railways company*) or by the Ministry of Public Works to be executed through public-private partnership contracts, the general rule is that they must be assigned through public tenders open to nationals and foreigners. Following the scheme applied internationally, only the company that was awarded the contract has the obligation to establish an exclusive-purpose company in Chile to carry out the project.

Regarding other types of contract, each state-owned company decides autonomously the way in which it hires the services it requires.

In the case of the construction of public works and the development of engineering specialty studies required by the Ministry of Public Works, it will be an obligation for their executors to be registered in some of the MOP's contractor registry. Foreign companies and consultants can access these records as soon as they meet the requirements of technical experience and economic capacity required according to the type of specialty of the works and studies. The registration time can be from 60 to 180 days, from when it is requested until all the legal, economic, and technical experience information that must be attached is approved.

Likewise, it is common that the Government and other public entities use a digital platform for public purchases, which includes the provision of supplies, studies, and consultancies, that is part of the system called "*Chile Compra*" ("*Chile Buys*"), and in which those interested in participating in tenders to be called must be previously registered.

For the business opportunities identified, the following table summarizes the requirements to participate in the bidding processes of PPP and as a contractor:

TABLE 22: REQUIREMENTS TO PARTICIPATE OF PPP BIDDING PROCESS

Decision Maker	Type of Contract	Bids presentation	Sign of Contract
General Directorate of Concessions, Ministry of Public Works (MOP)	Public Work Concession	Foreign companies can present themselves as a bidder or a member of a bidder	Award winner must create a Chilean Company
	Construction / Studies contracts	The bidder must be registered in the Register of the Ministry of Public Works	Must be a Chilean Company

Decision Maker	Type of Contract	Bids presentation	Sign of Contract
State owned Port Companies	Port Concession	Foreign companies can present themselves as a bidder or a member of a bidder	Award winner must create a Chilean Company
	Construction / Studies contracts	State owned ports Companies are free to establish the requirements	State owned ports Companies are free to establish the requirements

TABLE 23: REQUIREMENTS TO PARTICIPATE AS A CONTRACTOR

Decision Maker	Type of Contract	Requirements
Concessionaire of Public Work Concessions	Private Contract	Foreign companies can present themselves, however in the same case the company must be registered in the Register of the MOP
Port Concessionaire	Private Contract	Foreign companies can present themselves

Finally, it should be noted that for the purpose of guiding and supporting Chileans and foreigners in the development of business and investments, in 2018 was established a government instance denominated the Sustainable Project Management Office (also called GPS Office for *Oficina de Gestión de Proyectos Sustentables* in Spanish). On the website of this office ([www.oficinagps.cl](http://www.oficinagps.cl)) it is possible to find out registers of the project for region and sector of the economy, procedures guides, and a list of government programs for the support of entrepreneurship.

### 3. LEGISLATION GOVERNING THE MARITIME SECTOR

#### *Maritime authority*

Corresponds to the General Directorate of Maritime Territory and Merchant Marine (*DIRECTEMAR*), in accordance with Law (DFL) Nbr. 292 of 1953, to ensure the safety of navigation and the protection of human life at sea, controlling the compliance of the national and international provisions in this matter; as well as for the fulfillment of the safety measures of the ships in the ports of Chile.

In this way, *DIRECTEMAR* operates as maritime police in charge of the control and protection of all resources located within the national maritime territory, having authority over dikes, docks, berths, and all construction of maritime facilities, and has jurisdiction.

## Navigation Law

Decree Law Nbr. 2,222 of 1978, sets forth the Navigation Law, which charges *DIRECTEMAR* with the enforcement of laws and regulations applicable to port operations, except for those matters that fall under the jurisdiction of other authorities. The Navigation Law establishes rules concerning, among others, the registration and nationality of ships, the dispatch and reception of ships in Chilean ports, navigation in Chilean waters, piloting and the use of tugboats, the responsibilities of ship owners and operators, issues regarding personnel employed on ships, disciplinary and security issues, navigation risk issues such as accidents, wrecks and assistance rules, and certain environmental issues. Decree Law Nbr. 3,059 of 1979 approving Law for the development of the Merchant Navy, contains details concerning the vessels' regime, foreign trade of cargo and norms relative to the National Merchant Navy.

### Pilotage regulations

Supreme Decree<sup>8</sup> Nbr. 397 of 1985, sets forth Chile's pilotage regulations, pursuant to which Chilean pilots must be used by all ships that navigate through intercoastal waterways or the Straits of Magellan, or perform any maneuvers in Chilean ports or in proximity thereof, except under the circumstances listed therein.

The regulations distinguish between pilotage ("*practicaje*") and piloting ("*pilotaje*"). Pilotage is defined as all maneuvers performed by a ship in a port. Piloting is defined as the steering of a ship through canals or between ports in Chile. Only former Chilean Navy officers duly registered with *DIRECTEMAR* may act as pilots.

### Stevedores

Article 917 of the Commercial Code defines stevedores as Chilean individuals or companies that move cargo between ships or between ship and port facility. According to Supreme Decree Nbr. 48 of 1986, only individuals or companies registered in *DIRECTEMAR*'s Stevedoring Agent and Company Registry (the "Stevedore Registry") are allowed to perform stevedoring activities at Chilean ports. In order to qualify for registration in the Stevedore Registry, a stevedore must meet the following requirements:

In the case of an individual, he or she must: a) have Chilean citizenship; b) have an office established in each location where he will perform stevedoring services; c) maintain a net worth equal to or above a required minimum amount; d) not have been convicted of any crime; and e) not have been previously removed from the Stevedore Registry.

In the case of a company, it must: a) be legally registered in Chile, have a Chilean chairman of the board and Chilean administrators, directors and managers and be 51% owned by Chilean nationals; b) have an office established in each location where it will perform stevedoring services; c) maintain a level of capitalization at or above a required minimum; d) designate one or more Chilean

<sup>8</sup> A Supreme Decree is a decree that contains a resolution or administrative regulation issued by the President of the Republic.

representatives to act on behalf of the company; and e) not have been previously removed from the Stevedore Registry.

### *Shipping agents*

Article 917 of the Commercial Code defines Shipping Agents as those Chilean individuals or companies who act on behalf of ship owners or ship captains to carry out activities related to the servicing of ships.

### *Warehouses*

Law (DFL) Nbr. 2 of 1997 and Law (DFL) Nbr. 1 of 1998 established that the port concessionaires may provide warehousing services. For these purposes, concessionaires need not meet all of the requirements set forth in the regulations governing warehouses. The requirements applicable to concessionaires are contained in paragraphs six through nine of article 57 of Decree Law Nbr. 2 of 1997, which refer in general terms to an authorization that must be obtained from the Director of National Customs.

Supreme Decree Nbr. 1,114 of 1998 (Regulation on customs warehouse areas and merchandise storage), published in the Official Gazette on 26 May 1998, establishes additional requirements for the qualification of an area as a customs warehouse.

## **4. LEGAL FRAMEWORK OF THE STATE PORT SECTOR**

Both the Valparaíso Port Company, which manages the Port of Valparaíso, and the San Antonio Port Company, which manages the Port of San Antonio, correspond to state-owned companies created by Law No. 19,542 of 1997, called of Modernization of the State Port Sector (the law created a total of 10 state port companies throughout the country).

This law essentially aims to make the operation of state ports more efficient and to ensure their proper development over time, through four basic elements:

- i. It provides each state port company with an autonomous administration headed by a Board appointed by the Government<sup>9</sup>, so that they can apply inter-port competition strategies.

These companies are governed by the law that creates them and, in general, by the rules of private law.

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<sup>9</sup> The appointment of directors is made by the board of directors of the Public Companies System, which is a body dependent on the Production Promotion Corporation (CORFO), which, in turn, is a public corporation attached to the Ministry of Economy. The SEP acts as the controller of most state companies that are not in the mining sector. Under his control are, among others, the state port companies and the State Railways Company.



- ii. It establishes a complete institutional design that privileges and favors private investment in port infrastructure for the transfer and mobilization of cargo, through the granting of port concessions to private entities.

Said concessions must be granted through international public bidding and requires that the awardees of the contracts constitute an exclusive purpose company.

- iii. It enables the global management of the docking fronts by private companies, integrating infrastructure and services, thereby allowing intra-port competition.

For these purposes, tenders must establish safeguards against the free competition in order to prevent or mitigate situations of vertical and horizontal integration.

- iv. It establishes the obligation for each company to have updated planning instruments, that is, a Master Plan and a Reference Investment Calendar.

In theory, such development and investment plans should be consistent with the port policy promoted by the Government through the Ministry of Transport and Telecommunications.

Law Nbr. 19,542 organizes the state port sector and regulates the actions of its companies, but in no case constitutes a general law on ports, since private ports, even those for open use, do not apply this normative.

### **Functions and powers of state port companies**

State port companies have a broad corporate purpose, which incorporates the administration, exploitation, development, and conservation of ports, terminals, and, in general, of all the assets they possess, including related activities inherent to the port environment that are essential for their due compliance. For this, they are empowered to carry out all kinds of studies, projects, and execution of construction, expansion, improvement, conservation, repair, and dredging works in their ports and terminals. Additionally, they have powers to provide services to third parties related to their object.

State port companies can fulfill their corporate purpose directly or by way of private agents, through the granting of port concessions, leasing contracts, or the constitution of public limited companies, the latter, in any case, cannot be aimed at the administration or exploitation of docking fronts.

The land and buildings located inside the port facilities cannot be alienated or encumbered because it is an essential heritage of the Chilean State.

### **Regulation of investments in port infrastructure**

Regarding port investments, Law Nbr. 19,542 establishes two basic premises. On the one hand, it obliges port companies to be permanently considering and evaluating the adequacy of the capacities of the ports and terminals under their administration, to adequately comply with the infrastructure

requirements that allow efficient transfer and mobilization of cargo, as well as the passenger traffic, where applicable.

For this, the law has established the obligation of each company to have a Master Plan and a Reference Investment Calendar, which are public and must be kept up to date.

The Master Plan corresponds to a territorial planning instrument where the maritime and terrestrial areas of each port or terminal are delimited, for the planned development and use over a 20-year horizon. In turn, the Reference Investment Calendar corresponds to the programming of investments in berthing fronts, related areas and common goods, which can be carried out by private entities or by the companies themselves, and which covers a minimum period of 5 years.

The second premise is that the law differentiates between docking fronts investments from other investments. Thus, the construction and development of new docking fronts must be done through the scheme of port concessions granted to private entities, whose maximum term is 30 years.

Another fundamental aspect is that the Law prohibits port companies from granting any type of subsidies to investments made by third parties in their areas, so it will be imperative for the concessionaire to have all the resources to develop the concession and fulfill all of the contractual obligations during the entire term of the contract, exclusively from the sources of private financing it has, which will normally be given by its capital contribution, the indebtedness it contracts and the income from the exploitation of the concession.

In the case of common port works, such as breakwater or dike, circulation zones, and backup areas, these can be carried out by companies and even receive state contributions for their development. Thus, state port companies are empowered to carry out all kinds of projects and carry out construction, expansion, improvement, conservation, repair and dredging works in their ports and terminals.

## 5. LEGAL FRAMEWORK OF THE STATE RAILWAY SECTOR

The public railway infrastructure that is currently operational in Chile is administered and managed by the State Railways Company. Although this state-owned company was created in 1884, it is currently governed by Law (DFL) Nbr. 1 of 1993, known as the Organic Law of EFE.

EFE exclusively manages and operates railway tracks and facilities located between the Region of Valparaíso and the Region of Llanquihue (1,000 km south of Santiago). The railway lines located in the north of the country were delivered to the exclusive use of rail freight companies.

In relation to the Valparaíso Region, EFE manages a cargo line linking Santiago with the Port of San Antonio and operates, through a subsidiary company (MERVAL), a passenger train linking Valparaíso with towns in the interior of the Region.

The administration of the company has an autonomous character and is in charge of a board of directors whose members are appointed by the Government in the same way that was indicated regarding the directors of the state port companies.

The acts and contracts carried out by the Company in the course of its business will be governed exclusively by the rules of private law, in everything that is not contrary to the rules of its organic law.

### Functions and powers of EFE

In accordance with the law, *EFE* aims to establish, develop, promote, maintain and exploit passenger and cargo transport services to be carried out by means of railways or similar systems and complimentary transport services, in whatever way, including all related activities necessary for the proper fulfillment of this purpose. Likewise, it can commercially exploit the assets it owns.

*EFE* can carry out its corporate purpose directly or through contracts or concessions granted to private third parties, as well as through the constitution of public limited companies. Complimentary transport services may only be provided through contracts, concessions or companies agreed with third parties.

The participation of private agents in the companies that the Company forms for the fulfillment of its purposes and the granting of concessions, must be carried out through public bidding, except in the case of companies and concessions whose object falls on the provision of minor services.

*EFE* cannot conclude contracts that, legally or in fact, involve the sale of the strip of land, bridges, and works that constitute the route and railway line.

In any contract, concession or contribution that implies giving exclusive use of the railway, in whole or in part, it will be an essential condition of the contract, or of the concession, or of the contribution to society, that others agents are allowed to use the road, based on a rate system egalitarian and non-discriminatory (open access system).

### Regulation of investments in port infrastructure

As part of its management obligations, the law orders *EFE* to formulate Triennial Development Plans. In these Plans, *EFE* must indicate the railway service programs and relevant infrastructure projects that you expect to carry out or start in the corresponding period.

In the event that the formulated Plan requires all or part of State financing, it must be submitted to the Ministry of Transport and Telecommunications for approval. In this case, in addition, the Triennial Plan must be authorized by means of a Decree of the President of the Republic (Supreme Decree) and have the approval and signature of the Minister of Finance.

This decree defines the reciprocal obligations between the Government and *EFE*.

The National Budget Law can authorize transfers to *EFE* whose amount cannot exceed the contribution needs to be contemplated in the Development Plan, which can only and exclusively be used to: compensate the explicit or implicit subsidies received by other modes of land transport; finance investments in infrastructure and equipment; and settle debts.

EFE's new 2020-2022 Triennial Plan approved in February 2020 by decree of the President of the Republic issued through the Ministry of Transportation and Telecommunications, considers investments of US \$ 1,860 million, considering projects already started and new investments, distributed in various projects.

According to this plan, *EFE's* objective is to triple the number of passengers and double the load.

Among these projects is the "Santiago-Melipilla" suburban passenger train that will link Santiago with the town of Melipilla located halfway between Santiago and San Antonio. This rail service, which will also serve intermediate routes, is in the initial construction phase and is expected to handle 50 million passengers a year.

In relation to cargo projects, *EFE* is developing a project for the expansion of the capacity of the Intermodal Cargo Terminal in the Barrancas sector, located in San Antonio very close to the port, and upgrade of the railroad between San Antonio and Alameda station in Santiago.

Likewise, it contemplates the project "Repositioning of the Northern Coast Railway Infrastructure", which would consist of a Santiago-Valparaíso-Ventanas freight rail corridor (Ventanas or Puerto Ventanas is a private port that is located 36 km north of the Port of Valparaíso in the same Region of Valparaíso).

Along with this, *EFE* is studying jointly with the San Antonio Port Company the implementation of a modernized and expanded freight rail corridor between Santiago and San Antonio designed to specifically meet the needs of the Port of San Antonio. This rail corridor would be made up of new cargo transportation services and a modal exchange center located on the outskirts of Santiago, which would allow integration of the train with truck services.

In this regard, it should be noted that currently private rail freight companies *FEPASA* and *TRANSAP* carry products to and from the Port of San Antonio, which have porting contracts with *EFE* to use their railways.

## 6. LEGAL FRAMEWORK OF THE PUBLIC WORKS CONCESSIONS SYSTEM

Since 1993 the Chilean Government has promoted to construct and maintain public infrastructure through a public-private partnership, which, to date, with almost 100 contracts awarded, has allowed investments around 25 billion dollars. The concession areas include urban highways; inter urban roads, airports, ports, dams, hospitals, prisons, railway infrastructure, and public buildings, among others<sup>10</sup>.

In simple terms, the model of public works concessions consists of the assignment by the Government to a private company, through an international public bidding process, the development of an infrastructure project, its maintenance and the provision of related services, in exchange for the right to charge the users of the infrastructure and its services tolls or tariffs, according to what is established

<sup>10</sup> The port concessions and the public-private association contracts signed by *EFE* have been granted in application of the rules that govern the respective companies; all the other contracts have been awarded under the regulation of the public works concessions system.

in the bidding conditions, as occurs with the roads, or in exchange for payments by the Government, as it happens, for example, in the case of hospitals and prisons.

In this way, the Government can finance and maintain public infrastructure, and allows the private sector to make an investment and administration management that generates economic benefits. For this, the different types of risks are identified, which are regulated by contract on a case-by-case basis, assigning part of these risks to the concessionaire and others to the State, in accordance with the law, so that they can be managed efficiently.

The legal framework for the public works concession system comprises the Organic Law of the Ministry of Public Works (DFL MOP Nbr. 850 of 1997)<sup>11</sup>, the Public Works Concessions Law (Supreme Decree MOP Nbr. 900 of 1996) and the Regulation of the Public Works Concessions (DS Nbr. 956 of 1997)<sup>12</sup>.

Under this legal framework, the Ministry of Public Works can grant a concession on all types of public infrastructure and, if the infrastructure to be concessioned is under the powers of another state entity, this entity can delegate the power to grant a concession to the Ministry of Public Works.

It is important to note that the Public Works Concessions Law was significantly modified by Law N°20.410 through changes that included the introduction of explicit service standards and certain technical standards in tender term sheets; the creation of a high-level Consultative Council to advise the Public Works Ministry on new projects, and an interdisciplinary Technical Panel to intervene in technical or economic controversies prior to the judicial stage, and the introduction of new regulation on the modification of concession contracts.

Likewise, in 2017 through Law Nbr. 21,044 the General Direction of Public Works Concessions was created, with which the Chilean Government has a specialized high-level entity dedicated exclusively to the management of the public works concession system.<sup>13</sup>

The Public Works Concessions Law and its Regulation govern all the aspects related to the concession and, therefore, its rules are mandatory for the tender and the concession contract. In the event of any contradiction between the content of the bidding basis (contract) and the law or regulation, the law and the regulation prevail.

According to the law, the concession contract is composed by:

- a. The Administrative Bases, the Technical Bases and the Economic Bases of the Bidding Bases (including all its annexes and any resolutions modifying the original Bases).
- b. The technical and economic Offer of the Offeror (bidder) that is awarded the concession.

<sup>11</sup> DFL is a way to make a law.

<sup>12</sup> DS is the acronym for Supreme Decree, which is a resolution issued by the president of the republic.

<sup>13</sup> The General Direction of Public Works Concessions is usually called General Direction of Concessions or DGC.

The fact that a strict legal framework is applied constitutes an important guarantee for the participants in the tender and for the concessionaires, since it limits the field of action of the officials who prepare the bidding conditions and the terms of the contract, avoiding unjustified discretion or abusive clauses.

The Public Works Concessions Law and its Regulations constitute one of the most solid pillars of the Chilean concession system, and have been drafted and applied on the understanding that the concession contract must be balanced, that is, it must be beneficial for both parties, this is, for the State as well as for the concessionaires, since otherwise the system would not be successful.

Likewise, a very relevant characteristic of the public works concessions system is that the concessions are granted through a Supreme Decree signed by the President of the Republic of Chile, and also by the Minister of Finance<sup>14</sup> and the Minister of Public Works.

This is a very important guarantee for concessionaires, since being an act of the President of the Republic accompanied by the Head of Public Finance, all the government commitments established in the concession contract, both financial and otherwise, are enforceable against the Chilean State.

#### **Some relevant aspects for investors:**

##### **i. Mechanism for Facilitating Financing (Pledge of the Concession)**

In order to obtain financing and give payment guarantees to its financiers, the concessionaire company may pledge to them the rights of public works concession, on any payment committed in any title by the Treasury to the concessionaire company within the concession contract or on the income coming from the concession's operation.

##### **ii. Right of the Concessionaire Company to Transfer the Concession to Another Company**

The concessionaire company may transfer the concession, upon request to the MOP, individualizing the transferee, who must comply with the requirements established in the bidding terms.

Similarly, there may be changes in the ownership of the concession company during the term of the contract, for which the MOP's agreement is required if the project is in the construction phase or it simply must be previously informed if it is in the operation phase.

##### **iii. Unsolicited proposal or private initiatives**

In accordance with legal regulations, any private party can propose to the MOP at any time a public investment initiative in infrastructure and services to be executed through the public works concessions system. These initiatives can range from completely self-financed projects with user fees, as in the case of toll roads, to fully funded by Government payments, as in the case of hospitals and prisons, or through mixed schemes.

<sup>14</sup> In Chile, Minister of Finance is called "Ministro de Hacienda".

In the event that the *MOP* declares its interest in the initiative presented, it will require the proponent to develop a set of specific studies that support it and demonstrate the convenience of its execution through a public works concession. In return, the proponent is recognized with the right to reimbursement of the money spent on the studies and a prize in the form of a bonus on his financial offer, in the event that he participates in the tender that his initiative gave rise to.

#### iv. Settlement of Controversies

Any discrepancies arising between the *MOP* and the concessionaire company during the execution of the concession contract shall be resolved as follows:

- Technical Panel

The system of public works concessions establishes the existence of a permanent panel of 5 experts, made up of lawyers, economists and engineers, before whom the *MOP* or the concessionaire company must submit any technical or economic discrepancies they may have.

This Technical Panel, after listening to both parties, who must present their stance in writing, issues a recommendation. If the parties accept the recommendation, the controversy ends, and if they do not, either of the parties can bring their dispute before the Arbitration Commission.

- Arbitration

Controversies or discrepancies arising in relation to the interpretation or application of the concession contract or its performance may be submitted by the parties to the Arbitration Commission or the Santiago Court of Appeals.

Controversies are usually submitted to the Arbitration Commission. The members of the Commission shall be appointed at the beginning of the respective concession and their members shall remain in office throughout the term of the concession contract.

The members of the Commission will be remunerated by the respective concessionaire and the *MOP* in equal parts.

The final judgment handed down by the Arbitration Commission may not be appealed in another instance.

## 7. LEGAL FRAMEWORK OF THE LOGISTIC SECTOR

Chile does not have a specific regulation that organizes and regulates the logistics sector as a comprehensive system, considering infrastructure, services, technology, information, and procedures.

The only institutional framework in this sector is given by a public-private council that advises the president of the republic but whose functioning is irregular. This advisory body is called the National



Commission for Logistics Development (CONALOG) and was created by Supreme Decree Nbr. 298 of 2010, issued through the Ministry of Transport and Telecommunications. According to this decree, its function is *"To provide advice, proposing to the President of the Republic plans, projects and logistics development programs"*.

In relation to the planning the logistics sector, the Minister of Transportation and Telecommunications has promoted Master Logistics Plans (PML), focused in the generation of a portfolio of initiatives for the different components of the logistics system, including sustainability and territory, regulation, and governance.

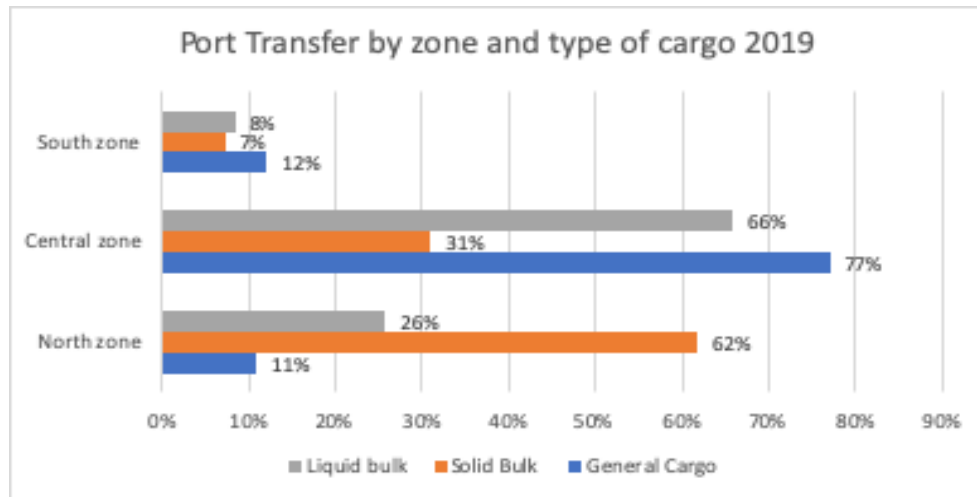
Thus, the structuring of "logistics corridors" or "public logistics platforms" is only constituted as a concept based on developments of projects carried out by different institutions.

In accordance with the foregoing, there is ample space for private action in relation to the implementation of physical and technological logistics platforms, either alone or through association mechanisms with public entities such as those previously indicated in this report.

## ANNEX 2: MAIN INFORMATION ABOUT HISTORICAL CARGO TRAFFIC IN CHILEAN PORTS

In terms of the type of cargo, general cargo transferred by Chilean ports was 39.4 million tons in 2019 and the central zone accounted for 77% as shown in Figure 13, being mainly containerized foreign trade. Liquid bulk totaled 36.0 million tons and the Central zone share's was 66%. Finally, solid bulks corresponded to 62.1 million tons and the zone accounted for 31%. These numbers do not include cargo in transit.

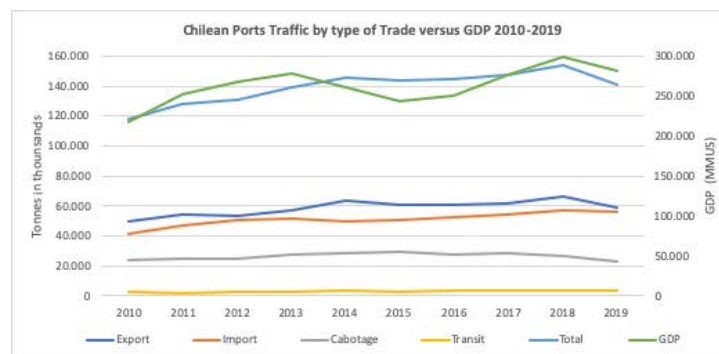
FIGURE 13: PORT TRANSFER BY ZONE AND TYPE OF CARGO 2019



Source: DIRECTEMAR

It can be derived from Figure 14 that cargo traffic through ports has increased to an average annual rate of 2% during the 2010-2019 period, with GDP growing at an average annual rate of 2.9% in the same period. In 2019, exports represented 42.0% of total cargo and have grown at an average annual rate of 2.0% in the period. Imports accounted for 40.0% in 2019 and increase at an average annual rate of 3.3% in the same period. Cabotage represented for 16.0% in 2019 and has not grown. Transit is mostly Bolivia foreign trade and represented 2.0% in 2019, with a 2.5% average annual rate in the period.

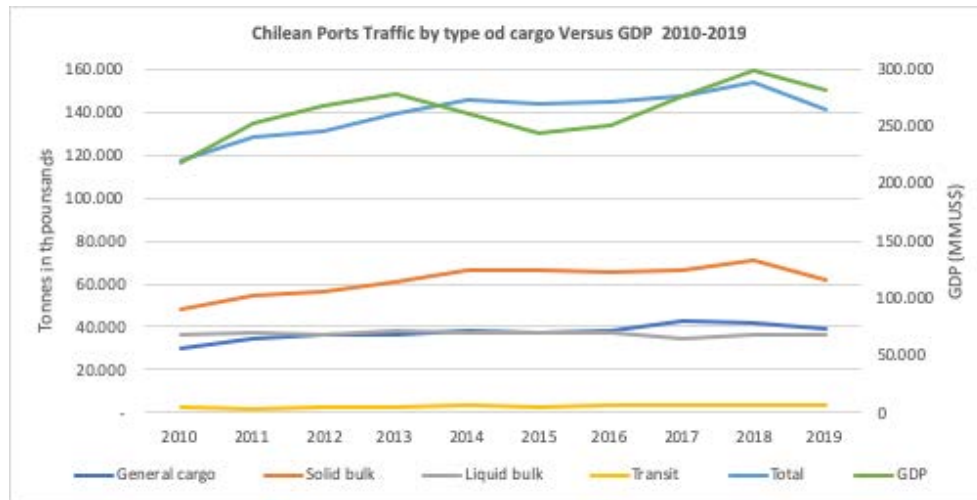
FIGURE 14: CHILEAN PORT TRAFFIC BY TYPE OF TRADE



Source: DIRECTEMAR

It can be derived from Figure 15 that general cargo accounted for 28.0% of total cargo on 2019 and solid bulk for 44.0%, and both ones have evolved to an average annual rate of 2.9% on 2010-2019 period. In 2019, liquid bulk represented 26.0% and has remained relatively flat on past ten years.

FIGURE 15: CHILEAN PORT TRAFFIC BY TYPE OF CARGO



Source: DIRECTEMAR

### ANNEX 3: MAIN INFORMATION ABOUT THE PORTS OF THE VALPARAÍSO REGION

At country level, the cargo handled through the ports for public use of the Valparaíso Region (San Antonio, Valparaíso and Ventanas) accounted 30.2 million tons in 2019, equivalent to 32.4 per cent of total cargo handled in Chile by ports for public use, with significant amounts of exports and imports.

- Import cargoes are mainly raw materials, goods for consumption and vehicles.
- Export cargoes are mainly agricultural products, fish meal, copper, fresh fruit and wood chips.

The volume of cabotage of general cargo for domestic cargo is not significant. Most of the goods imported to Chile arrive at the ports of the Valparaíso Region and are transported to Santiago and its surrounding areas by truck, rail and gas and oil pipeline. Principally oil and its derivative products are subject to seaside cabotage traffic, as well as sulfuric acid destined for mining in the north of country.

- Table 25 shows the cabotage traffic through the ports of the Valparaíso Region in 2019.

Due to the importance of the V, VI, VII and Metropolitan Region in Chile in terms of population and manufacturing, the cargo handled through public ports within the Valparaíso Region has been historically the largest of Chile.

The Valparaíso Region has five ports, of which only the ports of Valparaíso, San Antonio and Ventanas are for public use. The ports of Quintero and Oxiquim, which are privately owned ports for private use, handle mainly liquid bulk such as LNG, oil and derivative products. Accordingly, these privately-owned ports should not be considered to compete with the ports of Valparaíso, San Antonio and Ventanas.

The throughput handled in 2019 by all the ports of the Valparaíso Region was as follows

**TABLE 24: TOTAL THROUGHPUT IN THE PORTS OF VALPARAÍSO REGION IN 2019 (TONS)**

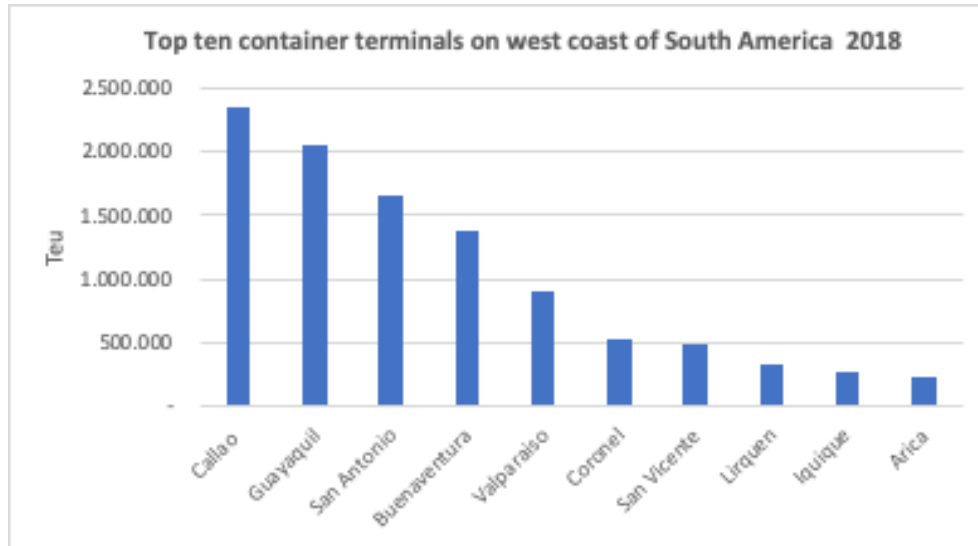
Port	General Cargo	Reefer	Liquid Bulk	Solid Bulk	Total
San Antonio	9,282,737	2,758,393	1,150,069	4,729,563	17,920,762
Valparaíso	5,211,006	1,521,130			6,817,028
Ventanas		863	358,446	5,107,408	5,466,717
Quintero	n.a.		n.a.		n.a.
Oxiquim			333,560		333,560
<b>Total</b>	<b>14,518,593</b>	<b>4,280,386</b>	<b>1,842,075</b>	<b>9,836,971</b>	<b>30,538,067</b>

Source: DIRECTEMAR

General cargo (principally fresh products, vehicles and forestry products) and containers are mainly handled through Valparaíso and San Antonio. Both ones, along with five other Chilean ports, are among the top ten main container terminals on the west coast of South America, as show

Figure 16. According to ECLAC (Economic Commission for Latin America) data, 43% of the box transfer took place in ports in Chile in 2018, followed by Peru, with 24%, Ecuador with 20% and Colombia (without Cartagena de Indias) with 13%.

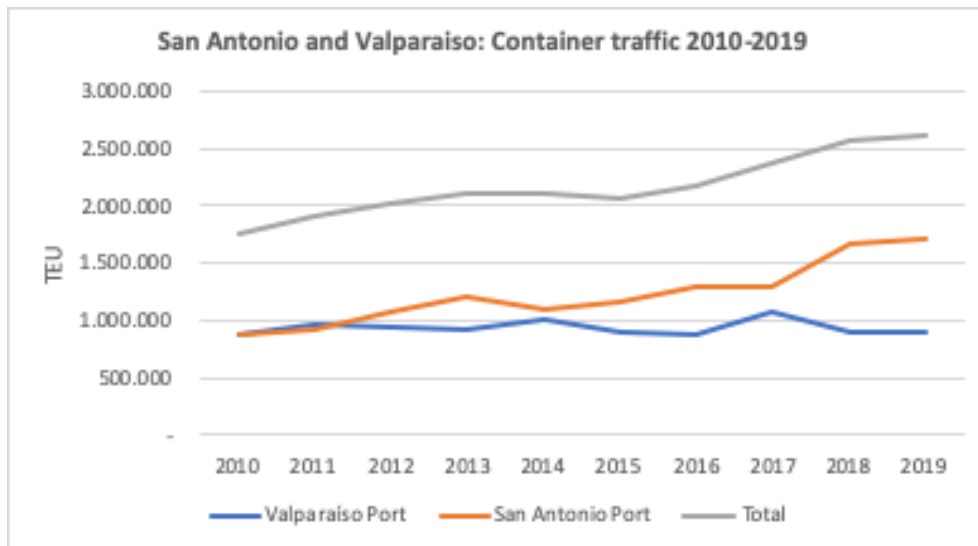
**FIGURE 16: TOP TEN CONTAINER TERMINALS ON WEST COAST OF SOUTH AMERICA 2018**



Source: ECLAC

In 2019, San Antonio and Valparaíso ports as whole transferred a total of 2.6 million of TEU, according to Annual Report of San Antonio Port Company, and traffic grew at an average annual rate of 4.5% in 2010-2019 period San Antonio's share grew from 50.0% to 65.5% in the period.

FIGURE 17: SAN ANTONIO AND VALPARAÍSO: CONTAINER TRAFFIC 2010-2019



Source: San Antonio Port Company. Annual Report 2019

TABLE 25: TOTAL CABOTAGE TRAFFIC THROUGH PORTS OF VALPARAISO REGION IN 2019 (TONS)

Port	General Cargo	Solid Bulk	Liquid Bulk	Total
San Antonio	205,942	139,254	961,186	1,306,382
Valparaíso	90,148			90,148
Ventanas		229,847	240,693	470,540
Quintero	n.a.	n.a.	n.a.	n.a.
Oxiquim			333,560	333,560
<b>Total</b>	<b>296,090</b>	<b>369,101</b>	<b>1,535,439</b>	<b>2,200,630</b>



## ANNEX 4: MAIN CHARACTERISTICS PUERTO SAN ANTONIO

### Traffic

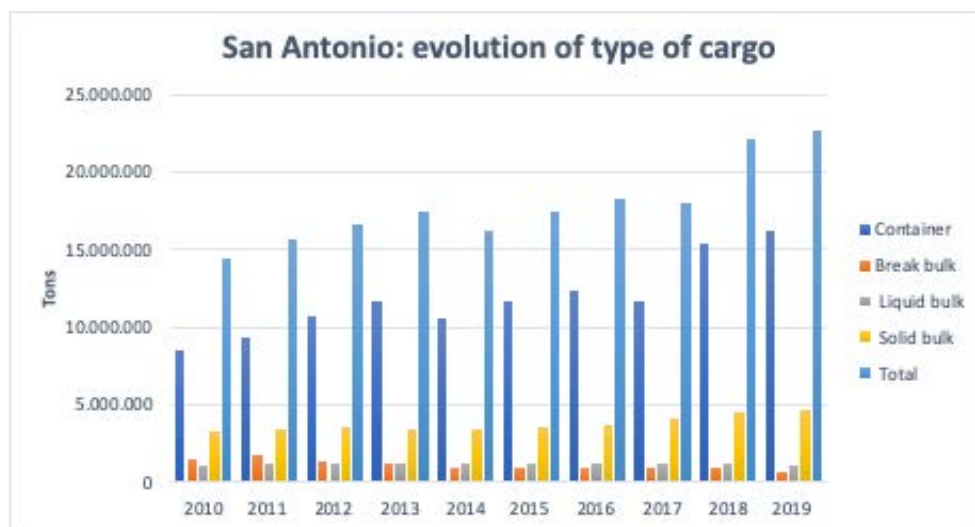
In 2019, Port of San Antonio transferred a total of 22.7 million tons, growing at an average annual rate of 5.1% in 2010-2018 period. The containerized cargo accounts for 72% and has grown at an average annual rate of 7.8% in 2010- 2019 period, reaching about 1.7 million TEU. The following table shows the evolution of the cargo traffic through the Port of San Antonio according to type of cargo handled on the decade.

TABLE 26: TRAFFIC BY TYPE OF CARGO THROUGH THE PORT OF SAN ANTONIO (TONS)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Container	8,527,786	9,337,061	10,638,270	11,609,651	10,622,620	11,724,028	12,396,136	11,607,300	15,331,489	16,221,399
Break bulk	1,514,633	1,699,397	1,294,419	1,147,209	931,679	936,413	904,747	1,003,323	955,136	693,765
Liquid bulk	1,139,547	1,208,237	1,252,052	1,259,994	1,208,429	1,204,650	1,219,748	1,184,901	1,207,649	1,051,356
Solid bulk	3,253,506	3,465,904	3,492,674	3,429,293	3,413,308	3,540,731	3,689,490	4,153,518	4,565,855	4,714,327
<b>Total</b>	<b>14,435,472</b>	<b>15,710,599</b>	<b>16,677,415</b>	<b>17,446,146</b>	<b>16,176,037</b>	<b>17,405,823</b>	<b>18,210,121</b>	<b>17,949,042</b>	<b>22,060,128</b>	<b>22,680,847</b>

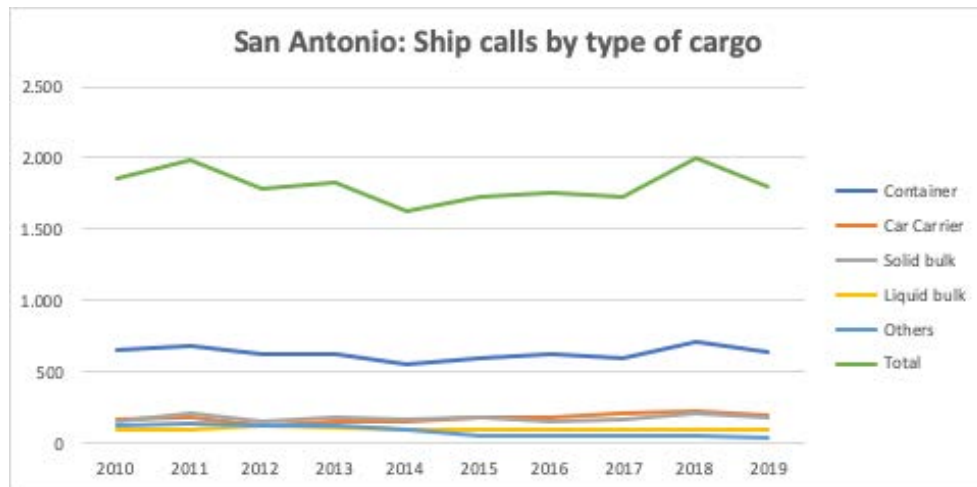
Source: San Antonio Port Company

FIGURE 18: SAN ANTONIO. EVOLUTION OF TYPE OF CARGO



Source: San Antonio Port Company

FIGURE 19: SAN ANTONIO: SHIP CALLS BY TYPE OF CARGO



### Existing Facilities

The port has a total area of land of 197 hectares, of which (i) 62.6 hectares are used for cargo handling activities, including the eleven berths and their respective storage areas; (ii) 2.0 hectares are used for the fishing industry; (iii) 20.2 hectares are used for backup facilities and infrastructure of the port activities and (iv) 21 hectares for tourist activities. In addition, it has a sheltered area of approximately 92.7 hectares to develop the new port named Outer Port. The existing berth infrastructure of the port is clearly defined by three main different areas: *Molo Sur Terminal*, *Costanera-Espigón* and *Northern Terminal*.

Figure 20 and Table 27 present a view of the berths.

TABLE 27: BERTHS AT THE PORT OF SAN ANTONIO

Terminal	Berth	Length (m)	Maximum LOA (m)	Maximum Draft (m)	Cargo	Area (ha)
Molo Sur	1	930	363	14.0	Container, break bulk, solid and liquid bulk	32.4
	2		337	14.89		
	3		253	14.89		
Costanera-Espigón	1-2 <sup>15</sup>	700	367	14.1	Container, break bulk, car carrier and solid bulk	28.1
	4-5	240.35	237	10.69		
	6-7	321.0	190	6.49-4.89		
Terminal Norte	8	186.0	230	12.20-11.20	Solid bulk	2.0
Policarpo Toro	9	62.3	190	10.0	Liquid bulk	

Source: DIRECTEMAR

<sup>15</sup> Berth named 1 and 2 are in same pier one after the other

FIGURE 20: BERTHS AT THE PORT OF SAN ANTONIO



Source: Master Plan San Antonio Port and Google Earth

### Concessions

San Antonio port has three terminal concessions and each one has the purpose of developing, maintaining and operating the corresponding terminal, as well as the docking of ships and cargo storage. The following

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Table 28 summarizes the concession characteristics:

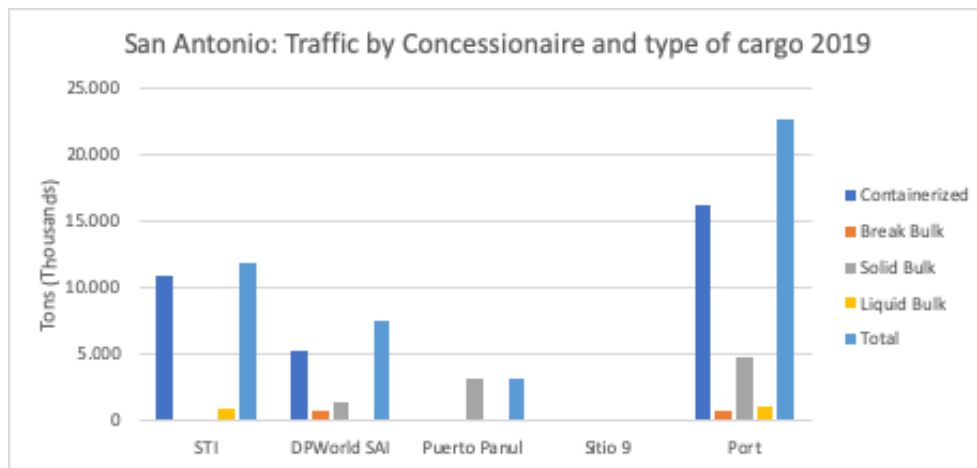
TABLE 28: TERMINAL CONCESSIONAIRES AT THE PORT OF SAN ANTONIO

Terminal	Concessionaire	Shareholders	Awarded Date	Termination Date
Molo Sur	San Antonio Terminal International S.A. or "STI"	<ul style="list-style-type: none"> <li>SAAM Puertos S.A. (50%), a multinational company of Chilean origin</li> <li>SSA Holding Internacional Chile Ltda. (50%), an American company with strong presence in the United States.</li> </ul>	January 2000	December 2024
Costanera-Espigón	Puerto Central S.A. or "DPWorld San Antonio"	<ul style="list-style-type: none"> <li>Puertos y Logística S.A. (99.995%), controlled by DP World Uk Limited</li> <li>Portuaria Lirquén S.A. (0.005%)</li> </ul>	August 2011	July 2041
Norte ("Panul")	Puerto Panul S.A.	<ul style="list-style-type: none"> <li>Graneles de Chile S.A. (40%)</li> <li>Marítima Valparaíso Chile SpA (49%)</li> <li>CHL Renta Alternativa II Fondo de Inversión Privado (11%)</li> </ul>	January 2000	December 2029

Source: Concessionaires Annual Report 2019

Figure 21 shows throughput by concessionaire and type of cargo in 2019. STI is the country's leading container operator in 2019 with about 1.2 million TEU, exceeding for eight consecutive years the million TEU transferred.

FIGURE 21: SAN ANTONIO: TRAFFIC BY CONCESSIONAIRE AND TYPE OF CARGO 2019



Source: San Antonio Port Company

## ANNEX 5: MAIN CHARACTERISTICS PUERTO VALPARAÍSO

### Traffic

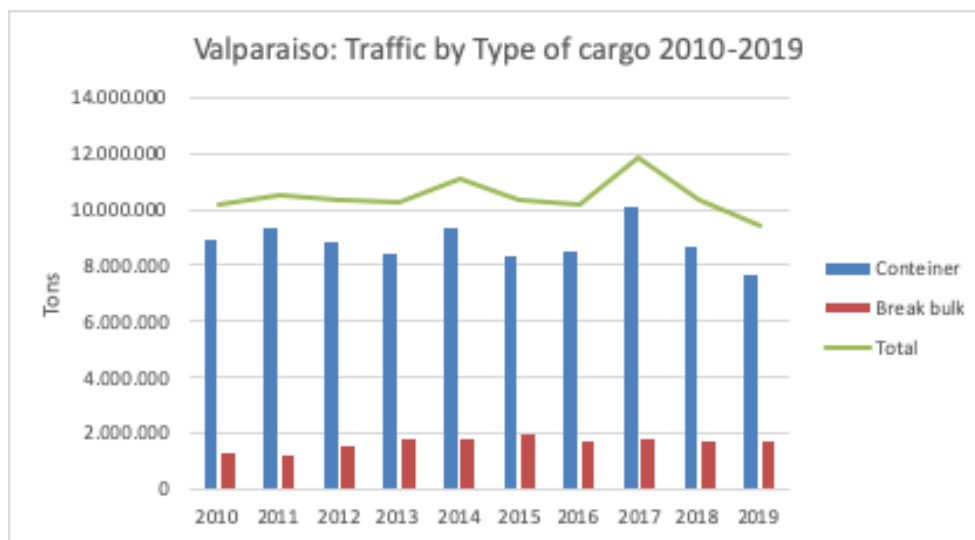
In 2019, Port of Valparaíso transferred 9.4 million Tons, showing a negative growth at an average annual rate of -0.9% during the decade. The containerized cargo represents 81.7% of its total cargo, which has had a negative average annual rate of -1.6% in 2010-2019 period, reaching about 0.9 million TEU. The following table shows the evolution of the traffic through the Port of Valparaíso according to type of cargo handled on the decade

TABLE 29: TRAFFIC BY TYPE OF CARGO AND SHIP CALLS THROUGH THE PORT OF VALPARAÍSO 2010-2019 (TONS)

Years	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Container	8,890,206	9,305,039	8,813,238	8,424,268	9,302,439	8,366,520	8,466,776	10,079,342	8,693,590	7,676,178
Break bulk	1,514,633	1,699,397	1,294,419	1,147,209	931,679	936,413	904,747	1,003,323	955,136	693,765
<b>Total</b>	<b>14,435,472</b>	<b>15,710,599</b>	<b>16,677,415</b>	<b>17,446,146</b>	<b>16,176,037</b>	<b>17,405,823</b>	<b>18,210,121</b>	<b>17,949,042</b>	<b>22,060,128</b>	<b>22,680,847</b>
Ship call	887	907	823	787	736	692	582	622	511	563

Source: Valparaíso Port Company

FIGURE 22: VALPARAISO TRAFFIC BY TYPE OF CARGO 2010-2019



### Existing Facilities

The port has a total area of land of 133 hectares, including 72.9 hectares corresponding to Logistic Support Zone, known as "ZEAL" and located at 11 km from the port in the south access, of which (i) 20.8 hectares are used for cargo handling activities, including the eight berths and their respective storage areas; (ii) 21.2 hectares are mainly used for truck parking in south access; and (iii) 16.2 hectares are used for tourist and commercial activities. In addition, there is 271 hectares corresponding to maritime areas. The existing berth infrastructure of the port is clearly defined by two main different areas named Terminal 1 and Terminal 2.

Figure 23 and

Table 30 present a view of the berths.

FIGURE 23: BERTHS AT THE PORT OF VALPARAÍSO



Source: Valparaíso Port Company and Google Earth

TABLE 30: BERTHS AT THE PORT OF VALPARAÍSO

Terminal	Berth	Length (m)	Maximum LOA (m)	Maximum Draft (m)	Cargo	Area (ha)
Terminal 1	1	740	366	14.0	Container and break bulk	14.6
	2					
	3					
	4-5					
Terminal 2	6	191	185	8.5	Container, and break bulk	6.2
	7	127	125	6.9		
	8	235	235	9.3-8.9		

Source: DIRECTEMAR

### Concessions

Valparaíso port has two terminal concessions, each one has the purpose of developing, maintaining and operating the corresponding terminal, as well as the docking of ships and cargo storage. In addition, there is a concession of the Logistics Support Zone (ZEAL) awarded to AZVI, a Spanish-born company, which provides container transfer support services. The following



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Figure 24 presents the concession areas and Table 31 summarize characteristics of the terminal concession:

FIGURE 24: CARGO CONCESSIONAIRES AT THE PORT OF VALPARAÍSO



Source: Valparaíso Port Company

TABLE 31: TERMINAL CONCESSIONAIRES AT THE PORT OF VALPARAÍSO

Terminal	Concessionaire	Shareholders	Awarded Date	Termination Date
Terminal 1	Terminal Pacifico Sur S.A. or "TPS"	<ul style="list-style-type: none"> <li>Neltume Ports S.A. (60.1%), controlled by Neltume Port of the ULTRAMAR group</li> <li>Contug Terminal S.A. (39.9%), Swiss subsidiary of the MSC,</li> </ul>	January 2000	December 2024
Terminal 2	Terminal Cerros de Valparaíso S.A. or "TCVAL"	<ul style="list-style-type: none"> <li>Única- Aleatica S.A. (Chile) (99.9%)</li> <li>Única - Aleatica S.A. (Spain) (0.1%)</li> </ul>	December 2013	2021

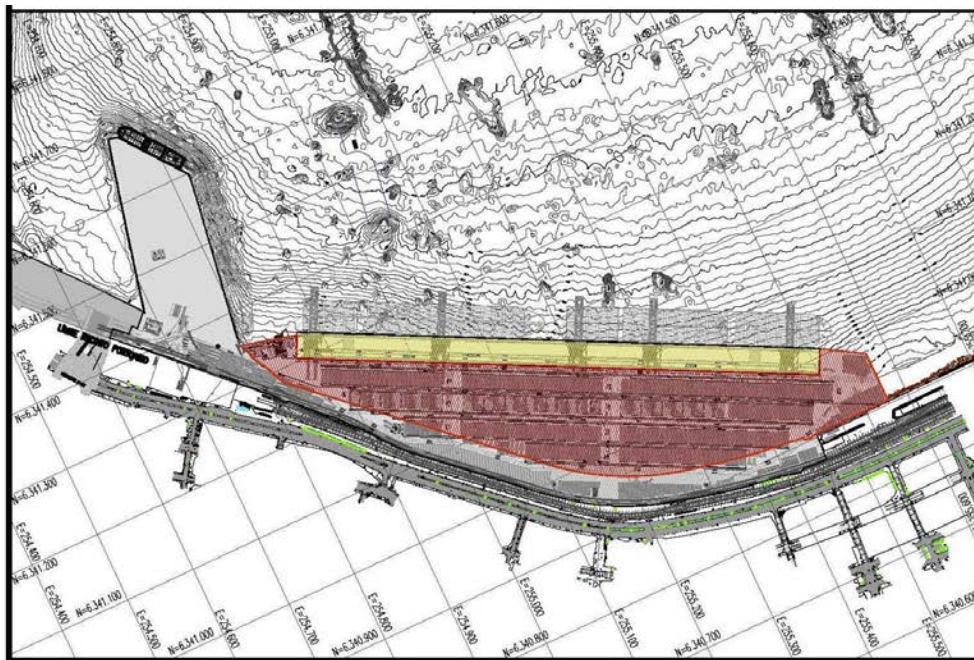
Source: Concessionaires Annual Report 2019

The port concession for Terminal 2 was awarded to TCVAL in December 2013 for a term of 30 years, including the obligation to build a new 785m long pier and its 12.1-hectare back-up yard, including the corresponding equipment, as shown in

Figure 25. The first 400 meters of quay, along with its supporting back-up yard, must be built at the beginning of 2021 and the remaining 385 meters at the end of 2024. The total estimated investment was € 420 million. TCVAL had to prepare and process the environmental impact study, until obtaining the Environmental Qualification Resolution. This Resolution was obtained in October 2018 and claims were filed against it before the Environmental Court. Due to the long time it took to obtain the Resolution, TCVAL made the decision to use the way-out clause included in the concession contract, which is why it will conclude next year.

TCVAL's decision to terminate the contract early has forced to Valparaíso Port Company to initiate a port concession process mainly to operate the Terminal for a short term of 4 years, during which a new long-term port concession would be designed and implemented, as described in Chapter 3.

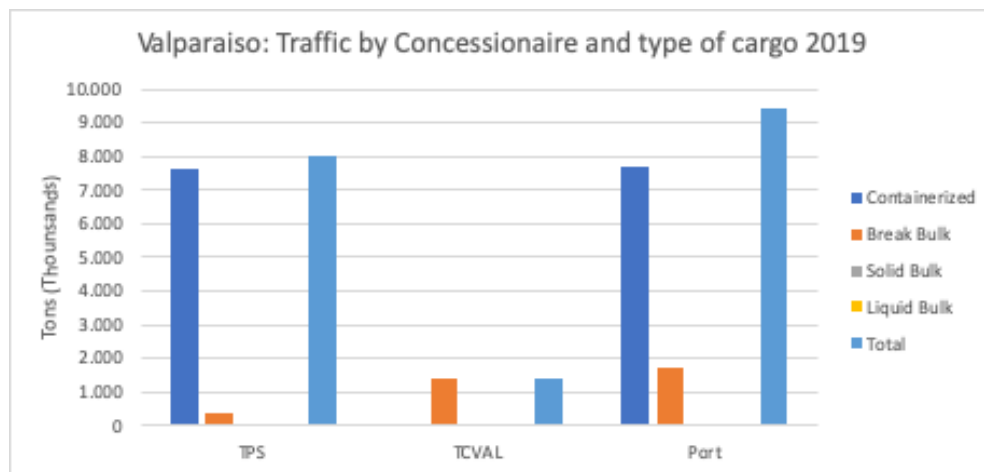
FIGURE 25: PORT OF VALPARAISO: TERMINAL 2 EXPANSION PROJECT



Source: Valparaíso Port Company

Figure 26 shows throughput by concessionaire and type of cargo in 2019. TPS concentrated 85.2 per cent of the total cargo transferred through Port of Valparaíso and 99.7 per cent of the containerized cargo.

FIGURE 26: VALPARAISO TRAFFIC BY CONCESSIONAIRE AND TYPE OF CARGO 2019



Source: Valparaíso Port Company

## ANNEX 6: DOCUMENTS

The following References were consulted:

1. *Estudio de Impacto Ambiental Proyecto Puerto Exterior de San Antonio*. San Antonio Port Company. April 2020.
2. *Informe N° 18. Tribunal de Defensa de la Libre Competencia*
3. *Plan Maestro Puerto San Antonio*. San Antonio Port Company. December 2013
4. *Calendario Referencia de Inversiones 2025*. San Antonio Port Company. June 2020
5. *Annual Report 2019*. San Antonio Port Company.
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7. *Annual Report 2019*. Puerto Central S.A.
8. *Annual Report 2019*. Puerto Panul S.A.
9. *C.P.S.A. Ordinario N° 12.000/ 428 VRS. Habilita las Instalaciones Portuarias del Puerto De San Antonio*. DIRECTEMAR. 21 May 2019.
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14. *Proyecto Terminal Cerros De Valparaíso TCVAL. Estudio de Impacto Ambiental*. 2015
15. *Resolución Exenta N° 039, Califica Ambientalmente el Proyecto "Terminal Cerros de Valparaíso TCVAL"*. 2 October 2018.
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17. *C.P. (V.) Ordinario N° 12.000/ \_\_729\_\_ /VRS. Habilita la Operación Del Sitio N° 4-5, Terminal Pacifico Sur (TPA), Puerto de Valparaíso*. 25 July 2018
18. *C.P. (V.) Ordinario N° 12.000/ \_\_150\_\_ /VRS. Habilita la Operación de los Sitios de Atraque N° 6, 7 Y 8 del Terminal Cerros De Valparaíso, Puerto De Valparaíso*. 14 February 2019.
19. *Ley N° 19.542 de 1997, de Modernización del Sector portuario Estatal*
20. *DS MOP N° 900 de 1996, Ley de Concesiones de Obras Públicas*
21. *DS MOP N° 956 de 1997, Reglamento de Concesiones de Obras Públicas*
22. *DFL N°1 de 1993 del Ministerio de Transporte y Telecomunicaciones, Ley Orgánica de los Ferrocarriles del Estado*
23. *DS N° 298 de 2010 del Ministerio de Transporte y Telecomunicaciones, que crea la Comisión Nacional para el Desarrollo Logístico (CONALOG)*
24. *Términos de Referencia "Análisis y definición de un modelo de negocio para el Corredor Ferroviario de Carga Santiago – San Antonio", Licitación Pública SAI N° 04/2019*
25. *Acta Sesión Extraordinaria Consejo de Concesiones, Ministerio de Obras Públicas, mayo de 2019*.
26. <https://concesiones.mop.gob.cl/>

## ANNEX 7: INTERVIEWS

The following organizations and individuals were interviewed during the development of the study:

TABLE 32: INTERVIEWS

Organization	Date	Interviewed
Valparaíso Port Company	August 13, 2020	<ul style="list-style-type: none"> <li>Mr. Franco Gandolfo – General Manager</li> <li>Mrs. Javiera Perales – Development and Concessions Manager</li> <li>Mr. Juan Marcos Mancilla – Logistic Manager</li> </ul>
State Railway Company	August 18, 2020	<ul style="list-style-type: none"> <li>Mr. Ricardo Montecinos Leonard – Planning and Control Manager</li> </ul>
Ministry of Transport and Telecommunications <i>“Programa de Desarrollo Logístico” (Logistic Development Program)</i>	August 20, 2020	<ul style="list-style-type: none"> <li>Mr. Alexis Michea – Program Coordinator</li> <li>Mr. David Medrano</li> <li>Mrs. Paulina Soriano</li> <li>Mrs. Zaida Muñoz</li> </ul>
Sistemas de Empresas Públicas (SEP)	September 2, 2020	<ul style="list-style-type: none"> <li>Mr. Tomás Pinochet – Executive Director</li> <li>Mr. Víctor Selman – Corporate Director</li> </ul>
Ministry of Transport and Telecommunications <i>“Conecta-Logística” - “Programa de Desarrollo Logístico” (Logistic Development Program)</i>	September 4, 2020	<ul style="list-style-type: none"> <li>Mrs. Mabel Leiva – Project Director</li> <li>Mr. David Medrano</li> </ul>
San Antonio Port Company	September 7, 2020	<ul style="list-style-type: none"> <li>Mr. Luis Knaak – General Manager</li> <li>Mr. Daniel Ruz – Sub Manager of Puerto Exterior Project</li> </ul>
General Directorate of Concessions	September 23, 2020	<ul style="list-style-type: none"> <li>Mr. Hugo Vera Vengoa – General Director of Concessions</li> <li>Luis Felipe Elton Sanfuentes – Head of the Project Development and Bidding Division</li> </ul>

This is a publication of  
Netherlands Enterprise Agency  
Prinses Beatrixlaan 2  
PO Box 93144 | 2509 AC The Hague  
T +31 (0) 88 042 42 42  
E klantcontact@rvo.nl  
www.rvo.nl

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