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This report supports you with relevant content about investment opportunities in the infrastructure sectors in Brazil. The sections of this report aims to answer "why", "how" and "where" to invest in Brazil.

In this document you will find the best market entry strategies, with a section devoted exclusively to show how to invest in Brazil, through its incentive schemes and financing, quite as through its growing infrastructure market.



# Why Invest in Brazil? Brazil economy overview and perspectives

Largest country in South America, 5th largest country in the world and the 9th largest economy in the world

- In 2015, Brazil's GDP reached R\$ 5.9 trillion (USD 1.8 trillion), as the 9th largest economy in the world. By 2030, Brazil is expected to become the 8th largest economy, entering for the G-8 group of the world's leading economies.
- Brazil is facing challenges over recent years due to political e economic crisis but still has a strong pipeline
  of infrastructure projects, specially related to transports and social infrastructure.



Source: Central Bank of Brazil, 2016; Centre for Economics and Business Research (CEBR), 2016; IBGE, 2016



# Why Invest in Brazil? Brazil economy overview and perspectives

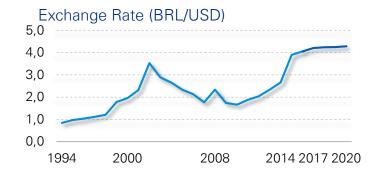
With a strong currency, controlled inflation, a democratic political system and press freedom, Brazil offers a stable economic environment for long term investments

### Exchange rate

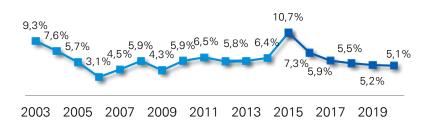
The expansion of the monetary base carried out by the Central Banks of developed economies since the beginning of the financial crisis has raised the risk of excessive capital flows into emerging countries. Due to this risk, the Brazilian Government took measures to prevent its floating exchange regime from suffering with artificial fluctuation of the exchange rate, which could bring imbalances to the external sector of the economy in the medium term.

### Inflation

The IPCA inflation index ended 2015 at 10.7% YoY. Although the inflation rate in 2014 had been 6.4%, this increase in 2015 can be attributed to factors such as the a expansionary monetary polic and increase in the exchange rate. Inflation rate forecast for 2016 is 7.3%.



### Inflation



Source: Central Bank of Brazil, 2015;



## Why Invest in Brazil? Investment in infrastructure

Despite its increased demand, Brazil has been investing only around 2.2% of its GDP in infrastructure, much less than other emerging nations, leaving a great opportunity for private investments in the infrastructure sector

### Investment in infrastructure

In 2013, the investment in infrastructure in Brazil amounted to around 2.1% of the GDP, a small amount if compared with other emerging nations.

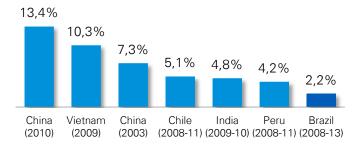
Other BRICS nations, such as China and India, invest far more in infrastructure then Brazil, with investments of 13.4% and 4.5% as a percentage of the GDP, respectively.

Despite the big rise in consumption, Brazilian level of investment in infrastructure has been at similar levels for the last 5 years, creating an accumulated deficit in infrastructure that must be addressed.

To reach a proper level of investment in infrastructure, Brazil should invest a minimum of 5% of the GDP in the sector.

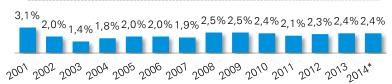
In order to address this deficit, the Brazilian Government has been taking several measures with the aim of boosting investments in infrastructure in the country.

### Investment in Infrastructure x GDP



### Investment in Infrastructure in Brazil (% GDP)





\*Estimate

Source: IBGE; Frischtak, 2012 "Brasil e China: Perspectivas"



## Why Invest in Brazil? Investment in infrastructure

From 2015 to 2018, according to BNDES, investments in infrastructure are expected to amount to BRL 598 billion, a 31% increase in relation to the period between 2010 and 2013

### **Future investments**

According to the Brazilian Economic and Social Development Bank (BNDES), investments in infrastructure in the country are expected to amount to R\$ 598 billion in the period that goes from 2015 to 2018, an increase of 31% in comparison with 2010-2013.

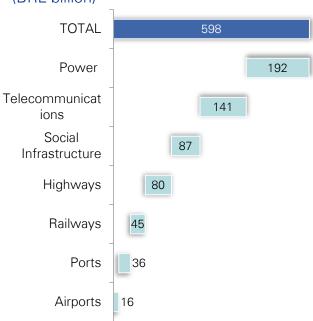
This estimate encompasses projects and strategic investment plans of companies, not restricted to those supported by the bank, and include investments made through concessions and public-private partnerships in the road, railway, port and airport segments.

Furthermore, investments in the industrial sector are also expected to increase.

From 2015 to 2018, it is expected that investments in industry will increase by 19%, reaching R\$ 909 billion. Out of this amount, R\$ 509 billion corresponds to investments in the oil and gas sector.

This investments will continue to pressure Brazilian infrastructure in the future, creating several opportunities for investments in the infrastructure sector.

Investments in Infrastructure in 2015-2018 (BRL billion)



Source: BNDES - Investment Perspectives ("Perspectivas de Investimento"), December 2014



## Why Invest in Brazil? Investment in infrastructure

2nd version of Federal Government PIL to integrate Roads, Railways, Hidroways, Ports and Airports nationwide launched in June 2015

Logistic Investment Program (PIL) – June 2015

**BRL 198.4 billion** 



Railways BRL 86.4 billion









BRL 69.2 billion from 2015 to 2018 and BRL 129.2 billon from 2019

### Railways

• 6 rail concessions to build 4,037 km

### Roadways

- 5 toll road concessions in 2015 (2,603 km)
- 11 toll road concessions in 2016 (4,371 km)

### **Ports**

- Concession of 50 port terminals in Public Ports
- Analysis of 63 private use port terminals (TUPs)

### **Airports**

- Investment of BRL 8.5 billion for the concession to the private sector of 4 airports
- Concession of seven regional airports

Source: EPL Planning and Logistics Company



## Why Invest in Brazil? Brazil Legal and Tax Landscape

### Tax incentives

Special tax regime	Beneficiary	Purpose	Main tax benefits
ICMS Tax Incentives			- Lower calculation basis
(bear in mind the tax	Brazilian resident	Attract the investments into	- Deferral
war)	entities	Brazilian States	- Tax Credits
ISS and others			- Exemption
Manaus Free Trade Zone (MFTZ)	Companies located in the Amazon region	Promoting its development	Reduction of corporate income tax; reduction of up to 88% of the import tax; exemption of IPI for products and/or manufacture within MFTZ; ICMS and PIS/COFINS benefits.
SUDAM/SUDENE	Companies located in the Northeast region and Amazon region	Promote inclusion and sustainable development in Northeast region and Amazon region	Partial or complete tax exemption on income taxes
R&D	Industries in general but also service providers	Fostering research and development and technologies advances	Additional tax deduction, reduction of IPI, 0% PIS/COFINS, accelerated amortization and depreciation, etc



## Why Invest in Brazil? Brazil Legal and Tax Landscape

Types of legal entities in Brazil



### **Limited Liability Companies**

- The management must be performed by a resident individual, who can be a foreigner with a permanent visa and a work permit.
- Must have at least 2 quota holders regardless of citizenship or residency.



### Corporation or Sociedades Anônimas (SAs)

- The SA in Brazil is governed by the Corporation Law and may be publicly held or privately held.
- The SA form is mandatory for establishing a financial institution.



### Limited Partnership

• Legal entity incorporated through a corporate contract between the limited partner, who has limited liability to the value of its quotas, and general partner, who has unlimited liability with respect to the entity's debts.



### Joint Venture Partnership (JV)

· Adopted by foreign investors where necessary from regulatory compliance or market necessity.

GP

### General Partnership

- This is more common in certain sectors, such as investment funds.
- The Participation Investment Fund (FIP) has tax immunity to sale of company

PPP

### Private-Public Partnership (PPP)

 This is more common in infrastructure projects that are firmed between private companies and public sector (federal, state or municipal government).



### Why Invest in Brazil? Summary



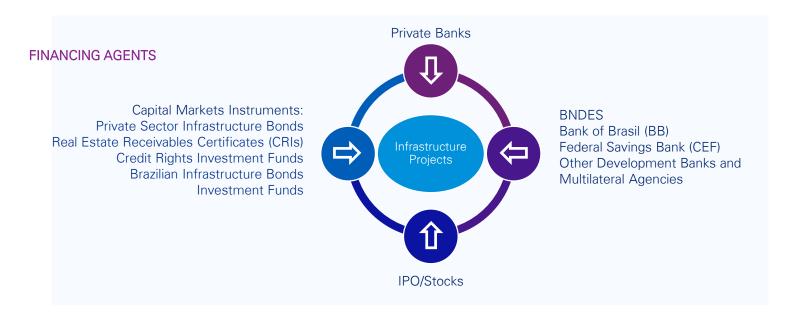




### Financing Market in Brazil - Overview

The majority of Brazilian infrastructure projects are financed by development banks and international multilateral agencies. Therefore, these institutions are critically important for the economic development of Brazil

 Infrastructure projects in Brazil are usually financed offering favorable conditions, such as long term interest rate (lower than market interest rate), greater grace periods, and many other conditions that are appropriate for projects cash needs.





Overview profile: BNDES – Social and Economic Development Bank



BNDES is the main source of long-term financing in Brazil. It finances projects from large-sized industrial and infrastructure companies to small business, with significant participation in projects in all the sectors of the economy.

BNDES's disbursements in 2015 totaled BRL 136 billion (USD 34.9 billion). However, the infrastructure sector registered the higher participation in 2015, reaching 40,4% of the total investments



Source: BNDES, 2016

### **BNDES Finem**

FINEM is the main line of credit for large construction projects.

FINEM has credit lines for greenfield and brownfield projects (capacity expansion and business recovery and modernization).

The loan-specific characteristics depends on the line of business (e.g. hydroelectric projects have different conditions than thermoelectric projects) but, in general, FINEM financing ranges from 60% to 80% of total investments.

The average cost of a loan is "Taxa de Juros de Longo Prazo" (TJLP) plus a risk premium . The TJLP rate is defined by the Brazilian Government and only used for BNDES loans. For some time the rate has remained at 6.0% per year, and is now 7,5%.

### **Project Finance Procedure**

During the BNDES Project Finance analysis process, the rating of guarantees will depend on the rating of the beneficiary controllers.



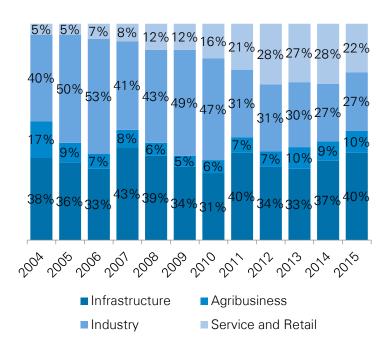
Overview profile: BNDES – Social and Economic Development Bank



Among the requirements for project finance are:

- Debt Service Coverage Ratio (DSCR) of at least 1.3 for each operational year.
- The DSCR can be reduced to 1.2 for projects with IRR above 8% per year (without inflation).
- Maximum leverage of 80% from the financeable items.
   The financeable items are defined by BNDES, but in general it include fixed and current assets and exclude pre-operational interest and assets with domestic content below 60%.
- Guarantees depending on the project sponsor's credit risk assessment, additional guarantees may be required.

### BNDES' disbursement by sector



Source: BNDES, 2016

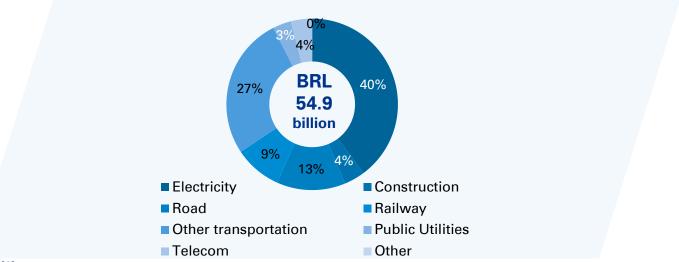


Overview profile: BNDES – Social and Economic Development Bank



The infrastructure sector led the disbursements, with BRL 54.9 billion (USD 14.1 billion) or 40,4% of total amount released. The most significant amounts were for electricity, with BRL 21.9 billion (USD 5.6 billion), and logistics transport, with BRL 20 billion (USD 5.1 billion).

### Infrastructure's disbursement by BNDES in 2015



Source: BNDES, 2016



Overview profile: BNB - Bank of Northeast Brazil



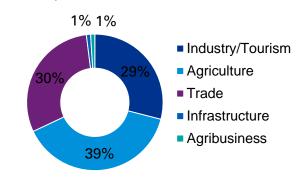
The BNB is a development bank with operations geographically restricted to the country's Northeast region, with activities ranging from microcredit to large infrastructure projects.

The bank is the largest institution in Brazil focused on regional development and its main source of funding is the Constitutional Financing Fund of the States of Northeast (FNE) with an amount contracted of BRL 11.5 billion in 2013.

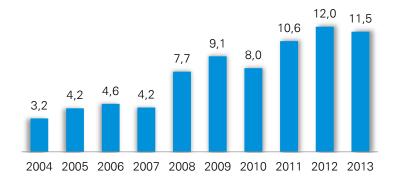
In addition, the BNB has multilateral sources of funding, such as the World Bank and the Inter-American Development Bank.

For large companies, the interest rate charged by the BNB is 10% per year, but could reach as low as 8.5% as a compliance (payment) bonus, if the portions of the debt are paid within the due dates.

FNE by sector - 2013



### Amount Contracted - FNE (BRL Billion)



Source: BND



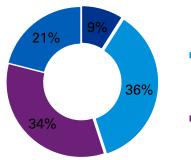
Overview profile: IDB - Inter-American Development Bank



IDB is the main source of multilateral financing for economic, social and institutional development in Latin America and the Caribbean. In 2013, the IDB has approved loans and guarantees totaling approximately USD 13,5 billion.

The major funding sectors are: (i) infrastructure (for example: energy, transport, communications), and (ii) social development (for example: water, sanitation, education, health and environment).

### Grant Financing by sector – 2013



- Integration & Trade
- Institucional Capacity and Finance
- Infrastructure & Environment

### Source: IDB

### Eligibility

The Bank can provide loans to private companies, regardless of their organizational model, provided they have legal capacity to contract with the Bank (including social and environmental criteria and the need for an investment plan). Among the companies eligible to borrow funds at the IDB there are the corporations, commercial companies, cooperatives and foundations.

### **Financing Limits**

For projects in Brazil, the IDB financing can be up to 60% from the total project costs, and this percentage can be increased up to 70% if the project is located in a poorer region. For loans without government guarantees, the Bank limits its participation to 25%. For expansion projects, the IDB can provide 50% of the cost of the project if the investments do not exceed 25% of the total capitalization.

IDB financing will be complemented by commercial financial institutions through a A/B Loan scheme, with funds from the IFC (or IADB), or "B-Loan", with funds from commercial banks.



Overview profile: IFC - International Finance Corporation

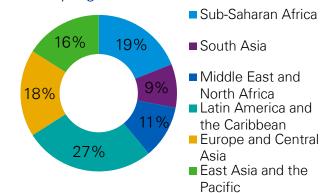


International Finance Corporation (IFC) is the branch of the World Bank that serves the private sector.

This institution promotes sustainable economic development by encouraging the growth of productive enterprise and efficient capital markets at the member countries.

In 2015, IFC has invested nearly USD 18 billion in more than 500 projects in 102 countries, covering all developing regions.

### Investment by region - 2013



### Eligibility

To be eligible for a loan from the IFC, the project must: (i) be in the private sector; (ii) be located in a developing country that is a member of IFC; and (iii) be environmentally and socially sound.

### Leverage

To ensure the participation of other private investors, A-Loans (loans from IFC's own account) are generally limited to 25% of the total estimated costs. In exceptional circumstances, participation may increase to 35% on smaller projects. For expansion (brown field) projects, IFC may provide up to 50% of project costs. Generally, A-Loans range from USD 1 million to USD 100 million.

### Terms

IFC operates on commercial basis, charging market rates for products and services. The loans typically have terms of 7 to 12 years from the date of origination. The grace period and repayment schedule are determined case by case, according to the needs of cash flow of the portion funded.



Source: IDB

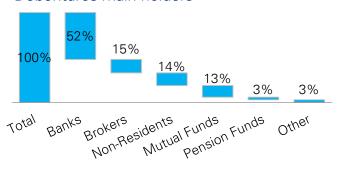
### Capital Markets: Debentures

### Overview

Until December 2014, the stock of infrastructure debentures in Brazil reached BRL 15.1 billion (USD 7.7 billion).

Out of this amount, the main holders are banks (52%), whereas foreign investors also holds a representative stake, roughly 14%.

### Debentures main holders



### Tax benefits

Federal Government has introduced the Law 12,431, creating tax benefits for market instruments that are intended to finance infrastructure investments.

### Key benefits:

- Individual: Without charge of income tax
- Legal person: Rate of 15% income tax
- Non-residents \*: Without charge of both income tax and IOF for incoming resources with shopping purpose

There are some requirements to be filled to fit these benefits.

Since the creation of this law, there were, by August 2014, 21 issues of infrastructure bonds, totaling BRL 7.7 billion.

From January to October 2014, were issued 6 infrastructure debentures, totaling BRL 2.6 billion. The following table contains only the debentures that were encouraged by the Law 12,431.

Emissions of debentureunder s the Law 12.431/11	N° of issues from 06/2012 to 08/2014	BRL Millions
art.2o Infrastructure	21	7.697,7
art.1o Non-residents	11	5.032,7
Total Law 12.431	32	12.730,4

Source: Publicy Information



<sup>\*</sup> managed and implemented by SPE

	Infrastructure debentures issued	Date	BRL Millions	Sector
1	Linhas de Transmissão de Montes Claros S.A.	08/15/2012	25	Power
2	ALL – América Latina Logística Malha Norte S.A.	09/15/2012	160	Railways
3	Concessionária do Sistema Anhanguera-Bandeirantes S.A. (Autoban)	10/15/2012	135	Highway
4	Concessionária Auto Raposo Tavares S.A. (CART)	12/15/2012	380	Highways
5	Santo Antônio Energia S.A.	12/15/2012	420	Energy
6	Interligação Elétrica do Madeira	03/15/2013	350	Energy
7	Concessionário Ecovias dos Imigrantes S.A.	04/15/2013	200 / 681	Highways
8	Concessionária Rodovias do Tietê S.A.	06/15/2013	1.065	Highways
9	Jauru Transmissora de Energia S.A.	06/15/2013	39	Energy
10	COMGÁS	09/15/2013	269 / 143	Oil & Gas
11	Norte Brasil S.A.	09/15/2013	200	Energy
12	Concessionária do Sistema Anhanguera-Bandeirantes S.A. (Autoban)	10/15/2013	450	Highways
13	Odebrecht Transport S.A.	10/15/2013	300	Highways
14	Termelétrica Pernambuco III	11/15/2013	300	Energy
15	Aeroportos Brasil – Viracopos S.A.	01/15/2014	300	Airport
16	Vale S.A.	01/15/2014	1000	Railways
17	Concessionária do Aeroporto Internacional de Guarulhos S.A.	02/15/2014	300	Airport
18	Santo Antônio Energia S.A.	04/15/2014	700	Energy
19	CPFL Geração de Energia S.A.	04/15/2014	70	Energy
20	Ferreira Gomes Energia S.A.	06/15/2014	211	Energy

### Source: Publicy Information

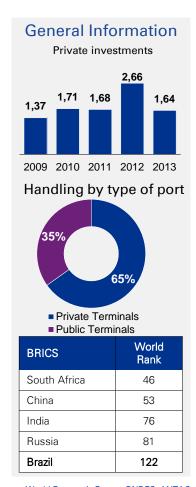
<sup>\*</sup> managed and implemented by SPE





### Ports - Overview

Strong demand, strategic locations and investment programs provide great opportunities in Brazilian ports)

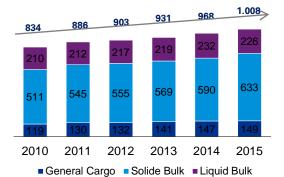


### Overview

Brazil's coastline extends over 8,500 km, and is served by 37 public marine ports and 131 port terminals for private use.

In the last 10 years Brazilian foreign trade has increased substantially in Brazil: exports have more than tripled, while imports have more than doubled. Over 90% of Brazilian exports and imports are handled by ports.

### **Total Cargo Handling: Million tons**



Source: World Economic Forum; BNDES; ANTAQ, IPEA

### **Need for investments**

Brazil's port infrastructure is ranked 122th of 144 countries, lower than all other members of the BRICS.

To meet this need, the Brazilian Federal Government in the 2<sup>nd</sup> version of the Federal Government PIL to integrate Roads, Railways, Hidroways, Ports and Airports nationwide (launched in June 2015), forecasts a total of BRL 37.4 billion in the port sector.

In order to attract private players, the government has been laying the groundwork to foster private investments in the country. To mention one action, we note the New Ports Law. With the new law, it is expected to surge several private port projects as the restriction for them to operate third-party cargo has been eliminated.

PIL forecasts a total investments of BRL 37.4 billion in ports from private and public sources in the next five years.





### Ports - Primary Market Opportunities

### Opportunities - PIL

Project	Description	Forecast	CAPEX
1 <sup>st</sup> Block of Concessions	2 <sup>nd</sup> phase of 1 <sup>st</sup> Block of Concessions - solid buk terminals in the Terminals of Outeiro, Santarém and Vila do Conde (Pará) and mineral bulk terminals in the port of Santarém.	Jun/2016	BRL 4.7 billion
Salvador Passenger Terrminal Auction	Salvador passenger terminal is to be auctioned till May/2016.	May/2016	BRL 7 million
2 <sup>nd</sup> Block of Concessions	Concession of 21 terminals in the ports of Suape, Aratu, Rio de Janeiro, São Sebastião, Santos, Paranaguá, São Francisco do Sul, Manaus, Santana e Itaqui	2016	BRL 7.2 billion
Private Terminals Authorization	Government has announced authorization for construction and operation of 63 private terminals across the country.	2016- 2020	BRL 14.7 billion

### Other opportunities

Project	Description	Forecast	CAPEX
Porto Sul (South Port) – Ilhéus, Bahia	Venture of the State of Bahia, this port will be built in state southern coast, in Ilhéus. It will be the last stop of Ferrovia de Integração Oeste-Leste. Contract term will be 25 years and the state government will enter the SPV as minority shareholder.	2017	BRL 5 billion
Porto Norte Capixaba - ES	Manabi Group, a iron ore producer, will construct a private terminal in order to store and export iron ore coming from the State of Minas-Gerais.	2017	BRL 1.5 Billion
Porto do Pólo Industrial de Manaus (Manaus New Port) – Amazonas	The new port of Manaus will be focused on container handling. The basic project is ready and the technical and economic feasibility study is in final stage. The contract term will be 25 years.	2017	BRL 0.5 billion
Paranaguá Tourism Platform	Parana state, by Antonina and Paranaguá Ports Administration (APPA, in Portuguese), analyses the opportunity of a PPP in tourism platform on Paranaguá Ports Complex.	2017	N.A.
Porto Central – Espírito Santo	The construction agreement was signed on September 2012, between the Port of Rotterdam, the State Government, the municipality, and SPV - Terminal President Kennedy. The port is still in the process of obtaining the preliminary operating permit, for subsequent approval by Antaq.	2017	BRL 5 billion
New Port in Goiana (PE)	New port concession in Goiana, 63km from Recife. Complementary to the port of Suape.	n.a.	BRL 3 billion



### Ports - Secondary Market Opportunities

### Private terminals in public ports

Concessions can last for up to 50 years (including 25 years renewal), at the end of the contract all assets return to public domain.

Concessionaire	City - State	Thousands of TEU handled in 2010	Main shareholders
LDC Brasil	Santos – SP	3,9*	Cargill and Louis Dreyfus Commodities
Santos Brasil	Santos – SP	1,367	50% Zardust 36% Aba Infra
Libra Santos	Santos – SP	766	Gupo Libra
TC Paranaguá	Paranaguá – PR	677	50% Advent 24% Soifer
Tecon Rio Grande	Rio Grande – RS	666	99% Wilson Sons
Tecondi	Santos - SP	371	Ecorodovias
Tecon Suape	Ipojuca – PE	340	ICTSI
Sepetiba Tecon	Itaguaí – RJ	295	99% CSN
Vila Velha Terminal	Vila Velha – ES	249	VLI
Tecon Salvador	Salvador – BA	233	Wilson Sons
Libra Rio	Rio de Janeiro – RJ	222	Grupo Libra
Multi-Rio	Rio de Janeiro – RJ	220	N.A.
Tesc	São Francisco do Sul – SC	42	50% Porto Novo 50% Dragados

<sup>\*3,9</sup> million tons is the minimum amount to be handled in the terminal from the 3rd year of concession on.



### Ports - Secondary Market Opportunities

### **Expiration of concession contracts**

There are 98 Terminals concession agreements about to expire. These terminals are distributed in 15 major ports.

Concessionaire	City - State	Area (m2)
Suape Graneis do NE	Suape – PE	42,165
Deicmar	Santos – SP	116,369
Termasa	Rio Grande – RS	112,500
Hiper Export	Vila Velha – ES	74,232
Amapá Florestal e Celulose	Santana – AP	67,624
Cia Portuária Vila Velha	Vila Velha – ES	54,868
Granel Química	Santos – SP	54,221
Petrobrás Distribuidora	Miramar – PA	50,700
Rodrimar	Santos – SP	50,334
Copesul	Rio Grande – RS	42,698
Flexibrás	Vitória – ES	42,617
Coamo	Paranaguá – PR	42,203
Esso Brasileira de Petróleo	Miramar – PA	41,596
Termares	Santos – SP	40,459
Liquigás Distribuidora	Miramar - PA	32,510

### **Expansion of existent areas**

Those projects are for the expansion of existing private terminals.

Concessionaire	City - State	Investment
Ultrafertil	Santos – SP	BRL 2.2 Billion

### Secondary Market Transactions

- Atlantico Sul Shipyard shareholders (Queiroz Galvão and Camargo Correa) bought back shares owned by IHI Corporation in 2016
- Noble Group bought the Terminal 12° S.A at the Santos Port.
- In February 2014, Nidera Sementes S.A bound the Cereal Sul Terminal Marítimo S.A at the Santos Port.
- Odebrecht bought major stake (75%) of a sugar terminal at the Suape Port – PE.
- In 2013 LLX and Açu Port, previously held by Eike Baptista, were sold to EIG Group, which invested BRL 1.8 billion in the company.
- In July 2013 Wilson Sons concluded the acquisition of Briclog.
- In 2013 65% stake in Porto Sudeste (MMX) sold to Impala Trading Trafigura), and Mubadala.
- In June 2012 Ecoporto, a branch of Ecorodovias, concluded the acquisition of Tecondi Terminal in the Port of Santos. The total investment was approximately BRL 1.4 billion.





### Airports - Performance and challenges for the sector

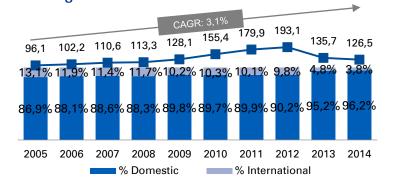
### Overview

According to ANAC, there were 150 airports in commercial operation in 2014, of which 66 were operated by the Infraero, concentrating 97% of domestic passenger traffic and 100% of international passenger traffic.

Infraero is a Brazilian Federal public company, it is responsible for the administration of major airports all over Brazil.

Infraero plans to create a subsidiary, Infraero Serviços, in partnership with an international operator to offer consulting and administration services for airports in Brazil and abroad.

### Passenger Traffic\*



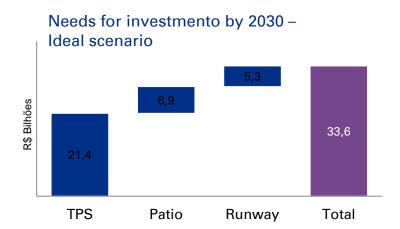
Source: World Economic Forum; BNDES; ANAC

### **Need for investments**

The 20 main Brazilian airports should require BRL 25 to 34 billion in investments until 2030.

These investments are mainly concentrated in the expansion of passenger terminals (TPS), roughly 70% of investment, and are fairly distributed over the years.

Middle and long term investments are mainly in passenger terminals and concentrated in the period between 2021-30, when demand for air transport will be growing more in absolute terms.





### Airports - Primary Market Opportunities

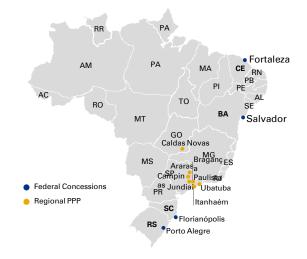
### **PIL - Opportunities**

In the 2nd version of the Federal Government PIL to integrate Roads, Railways, Hidroways, Ports and Airports nationwide (launched in June 2015), forecasts a total of BRL 8.5 billion in the airport sector:

- Federal Concessions approximately BRL 8.4 billion
- Regional Airports BRL 78 million

In July 2014, Brazilian Federal Government launched a Development Program of the regional aviation. As consequence of this program, ANAC will allow states municipalities, or groups of municipalities, with a GDP greater than BRL 1 billion to operate local airports.

Cities and states will be able to grant concessions to private companies.



Project	Description	Investment
	Concession of the Fortaleza airport	BRL 1.8 billion
Endavel composition windling	Concession of the Salvador airport	BRL 3.0 billion
Federal concession pipeline	Concession of the Florianópolis airport	BRL 1.1 billion
	Concession of the Porto Alegre airport	BRL 2.5 billion
Regional Airports	7 regional airports that will be tendered in a PPP scheme (Caldas Novas, Araras, Campinas – Amarais, Jundiaí, Bragança Paulista, Ubatuba and Itanhaém).	BRL 78.0 million
City Airports	Pouso Alegre Airport - Aeroporto Internacional de Cargas Senador José Bento Ferreira de Mello.	BRL 541 million
Private Airport	Executive Airport Catarina, greenfield executive airport, in construction in São Roque (state of São Paulo)	NA



### Airports - Secondary Market Opportunities

### **Airport Concessions in Brazil**

The airport of Natal was granted by ANAC in mid-2011. The concession contract includes operation, maintenance, and partial construction.

The airports of Brasilia, Campinas and Guarulhos were granted by ANAC, in February 2012, for expansion of capacity and modernization. INFRAERO held 49% of each concessionaire's shares.

In November 2013, a consortium led by Odebrecht TransPort won the Galeão auction with a bid of BRL 19 billion, or a premium of 294% over the minimum bid, and a consortium led by CCR won the Confins auction with a bid of BRL 1.82 billion, or a premium of 66%.



Airport	Туре	Concession aire	<b>Term</b> years	<b>Bid</b> BRL million	PAX million in 2014	Shareholders
Natal	Greenfield	Inframérica	28	170	1.5	100% Corp. América
Guarulhos	Brownfield	Invepar	20	16,200	39.5	90% Invepar 10% ACSA
Campinas	Brownfield	Aeroportos Brasil	30	3,800	9.8	45% Triunfo 45% UTC Participações 10% Eglis
Brasília	Brownfield	Inframérica	25	4,500	18.1	100% Corp. América
Confins	Brownfield	Aero Brasil	30	1,800	10.3*	74% CCR 24% Flughafen Zurich 1% GMBH
Galeão	Brownfield	Aeroportos do Futuro	25	19,000	17.3	60%Odebrecht Transport 40% CHANGI

Source: World Economic Forum; BNDES; ANTAQ



### Airports - Secondary Market Opportunities

### Other secondary market airport opportunities

According to BNDES, the airport investments for 2014-2017 will be around BRL 10 billion, 44% higher than the investments in 2009-2012.

Brazil will be the third largest aviation market in the world by 2017, surpassed only by the U.S. and China, thanks to an expansion of 35.5% in the number of domestic passengers.

There are also some small scale airports operated by private companies:

Airport	Concessionaire	Domestic / International	Passengers per year	
Vitória da Conquista - Bahia	Socicam	Domestic	74,500	
Angra dos Reis - Rio de Janeiro	Socicam	Domestic	N.A.	
Ipatinga - Minas Gerais	Usiminas.	Domestic	135,000	
Bonito - Mato Grosso do Sul Dix Empreendimentos		Domestic	5,800	
Cabo Frio - Rio de Janeiro  Costa do Sol Operadora Aeroportuária(CSOAERO)		International	10, 400	
Vitória da Conquista – Bahia	Socicam	Domestic	74,500	







### Highways and roads - Sector overview

### Road and highway concessions in Brazil

The process of roads concession started by the Federal Government in 1994, when the Concession Law was passed.

The process was carried out via several programs, with a target of granting concession of 11,191 km of roads.

In 2013, the total expenditures of concessionaires were BRL 17.0 billion, of which 64.7% were allocated to investments and operating expenses necessary for maintenance of the highways to ensure ideal traffic and safety conditions.

Around 19,463 km of highway concessions are currently granted to the private sector, which are operated by 59 concessionaires.

A total of 5,035 km were granted by the Brazilian Federal Government between 2013-2014, divided into 6 concessions.



### **Need for investments**

Although Brazil's roads are the primary means of cargo transport, accounting for around 61% of domestic transport, only 12% of them are paved and the total amount of investments is below 1% of the GDP.

There are still many investments to be made. According to CNT (Brazilian National Confederation of Transport), the need for investments in the road sector is huge: around BRL 293 billion.

Federal and state program	Concessions*	Extension	Light vehicles (million)	Heavy vehicles (million)
Federal concessions	21	10,123 km	318.2	163.9
São Paulo Concessions	20	5,500 km	691.5	204.1
Paraná Concessions	7	2,718 km	66.7	32.9
Other States Concessions	11	1,122 km	113.8	15.9
Total	59	19,463 km	1,190.2	416.9

Source: World Economic Forum; BNDES; ANTAQ



### Highways and roads - Primary Market Opportunities

### **Federal concessions**

The 2nd version of Federal Government PIL to integrate Roads, Railways, Hidroways, Ports and Airports nationwide (launched in June 2015), considers the launch of 16 toll road concessions until 2016 and several investments in existing concessions.

In 2015, EcoRodovias won the Rio-Niterói Bridge concession by offering to charge tolls of BRL 3.28442, 36.7% lower than the maximum toll rates set by ANTT.

The criterion for the selection of the concession holders will be the lowest toll to be charged from users.

BNDES, the Brazilian Development Bank, will lead the Long-term financing, together with commercial banks and capital market.

The Federal Government PIL included a total of 2,579 km divided in 4 concessions to be granted by the Brazilian Federal Government in 2015, but none of the concessions was awarded:



Project	Municipal Districts	Extension	Capex
BR-364/060 MT/GO	Rondonópolis-Jataí	704 km	BRL 4.1 billion
BR-163/230 MT/PA	Campo Verde-Miritituba	976 km	BRL 6.6 billion
BR-364 GO/MG	Jataí-Comendador Gomes	439 km	BRL 3.1 billion
BR-476/153/282/480 PR/SC	Lapa, União da Vitória, Chapecó	460 km	BRL 4.5 billion

Sources: EPL Planning and Logistics Company



### Highways and roads - Primary Market Opportunities

### Federal concessions (cont.)

The Federal Government PIL included a total of 4,371 km to be granted by the Brazilian Federal Government in 2016, divided into 11 concessions, representing a total investment of BRL 31.2 billion:



Project	Municipal Districts	Extension	Сарех
BR-101/232 PE	Recife, Cruzeiro do Nordeste, Caruaru	564 km	BRL 4.2 billion
BR-101 BA	Gandu, Feira de Santana	199 km	BRL 1.6 billion
BR-262/381 MG	Belo Horizonte, Divisa ES	305 km	BRL 1.9 billion
BR-101/493/465 RJ/SP	Ubatuba, Parati	357 km	BRL 3.1 billion
BR-470/282 SC	Blumenau, Navegantes, Itajaí	455 km	BRL 3.2 billion
BR-280 SC	Porto União, Jaraguá, S.F. do Sul	307 km	BRL 2.1 billion
BR-101 SC	Palhoça	220 km	BRL 1.1 billion
BR-101/116/290/386 SC	Ósório, Camaquã, Porto Alegre, Carazinho	581 km	BRL 3.2 billion
BR-267 MS	Nova Alvorada do Sul, Presidente Epitácio	249 km	BRL 2.0 billion
BR-262 MS	Campo Grande, Três Lagoas	327 km	BRL 2.5 billion
BR-364 RO/MT	Comodoro, Vilhena, Porto Velho	806 km	BRL 6.3 billion



### Highways and roads - Primary Market Opportunities

### **State concessions**

The State of São Paulo has implemented its first and second road concession program between 2008 and 2009. 6 road concessions were granted to the private sector during this period totaling 1,750km.

Other states also have important projects in different stages that must be tendered shortly, as shown in the table. State level concession and PPP opportunities in the highway and road sector:

Project	Description		Capex
Bahia state concession: Salvador-Itaparica island bridge	Build a new bridge connecting Itaparica island to Salvador. The project also include the construction of access roads to the bridge and the expansion of a stretch of state highway BA-001.		BRL 7 billion
Sao Paulo state concession: Ligação Parelheiros-Itanhaém	Implementation of a new highway to Baixada Santista – extension of the Trecho Sul do Rodoanel .Sponsored PPP with estimated term of 35 years.		BRL 2.2 billion
Mato Grosso state concession: MT- 010/249/235/170 and MT-338/325/225/423 and MT-220	The PPP includes the improvement and operation of the road. Feasibility studies for the project have already been presented to the cities that will be affected by the concession.	777 km	BRL 841 million
Pernambuco state concession: Rota do Capibaribe	he project will run alongside the entire length of the Capibaribe River that flows the netropolitan region of Recife.		BRL 500 million
Pernambuco state concession: PE-01	he site will have a tolled stretch at the link between Jaboatão dos Guararapes and Cabo de anto Agostinho.		BRL 1.0 billion
Minas Gerais state concession	The government is planning a highway concession program in the state in the near future.	900 km	BRL 4.0 billion
Mato Gross do Sul state concessions	ne Government of MS has authorized the Executive Power to offer 11 state highways, plus cesses, for bidding, totaling 950.8 km, with the longest one comprising 226 km.		N.A.
Recife Metropolitan Region Semi Ring Road	Construction of a semi ring road in the metropolitan region of Recife. Studies regarding the project are being analyzed by the Government.	N.A.	BRL 1.24 billion

Sources: ANTT; National Authority for Terrestrial Transport; EPL Planning and Logistics Company



#### **Secondary Market Transactions**

In March 2015, Galvão Engenharia had received offers to sell a stake in the federal highway BR-153 in Goiás and Tocantins. Galvão won the 30-year concession in May 2014 and has invested BRL 155 million in equity to begin construction.

In September 2014, TPI (Triunfo Participações e Investimentos) has agreed to acquire the toll road concessionaire Transbrasiliana from BRVias for BRL 22.7 million.

In December 2012, Abertis and Brookfield Infrastructure Partners' (BIP) launched a takeover offer for 40% of Arteris. This takeover comes after the acquisition of 60% in OHL Brasil by the same firms in April 2012.

In June 2012, Brisa, a Portuguese road operations company, sold it's 16.35% shares of CCR for over BRL 2.7 billion. The other shareholders of the controlling group bought 6.0% and the remaining 10.35% were made available in the stock market.

#### Federal highway and road concessions: 21 concessions.

Concessionaire	Section	Extension	Term (years)	End (year)	Main shareholders
ViaBahia	BR-324 and BR-116	681 km	25	2034	70% Isolux Corsan Concessiones S.A. , 30% Infravix Participações Ltda
Ecosul	BR-116, BR-392 and BR-293	624 km	28	2026	90% Ecorodovias Infraestruturas e Logística S.A., 10% SBS Engenharia e Construções Ltda.
Fernão Dias	BR-381 MG/SP	562 km	25	2033	100% Arteris S.A.
Eco101	BR-101 ES/BA	476 km	25	2038	58% Ecorodovias Infraestruturas e Logística S.A., 27.5% Centauros Participações Ltda, 14.5% Grant Concessões e Participações Ltda
Consórcio Planalto	BR-050 GO/MG	426 km	30	2044	20% Senpar Ltda. , 20% Greca Distribuidora de Asfaltos Ltda., 10% Construtora Estrutural Ltda., 10% Ellenco Construções Ltda.

Sources: Infra-latinamerica; ANTT; National Authority for Terrestrial Transport; EPL Planning and Logistics Company



#### State road concessions in southeast

- 22 concessions, which comprise more than 50% of the total highway concession traffic.
- The country's best highways are in the Southeast region. São Paulo alone represents 51.6% of the total highway concession traffic in the region.
- \* Nascentes das Gerais, Renovias, ViaRondom, AutoBan, Autovias, Colinas, Rota dos Bandeirantes, Vianorte, Centrovias, Ecovias Imigrantes, ViaOeste, Tebe, Rota 116, Ecopistas, Rodosol, Vialagos, Rodoanel.

#### Southeast



Concessionaire	State	Section	km	Main shareholders
SPVias	SP	Esp. Sto. do Turvo - Itararé / Araçoiaba da Serra	506	100% CCR
CART	SP	Presidente Epitácio - Piratininga	444	100% Invepar
Triangulo do Sol	SP	São Carlos - Mirassol / Matão - Bebedouro / Sertãozinho - Borborema	442	100% Atlantia Bertin Concessões S.A.
Rodovias do Tietê	SP	Bauru - Tiete / Piracicaba - Salto / Tiete - Campinas	406	50% AB Concessões S/A 50% Ascendi International Holding B.V.
Intervias	SP	Highways: SP - 147 / SP - 157 / SP - 165 / SP - 191 / SP - 215 / SP - 330 / SP - 352	376	100% Abertis S.A.
Other Concessions*	SP/RJ/ MG	-	3,682	-
TOTAL		5,856		

Source: Brazilian Association of Highway Concessionaires (ABCR)



#### Main state road concessions in South and Northeast

The south region is an important connection for trade between MERCOSUL partners: Argentina, Paraguay and Uruguay.

There are 4 highway concessions in the northeast region, which is the third largest region in Brazil in terms of area (18% of the total).

#### South



Concessionaire	State	Section	Km	Main shareholders
RodoNorte	PR	Apucarana - Ponta Grossa - Jaguariava - Curitiba	568	85.9% CCR S.A
Viapar	PR	Nova Londriana - Londrina / Cascavel - Maringa	546	24% Carioca Concessões S/A 18% Construtora Cowan S/A
Ecocataratas	PR	Guarapuava - Foz do Iguaçu	459	100% EcoRodovias
Caminhos do Paraná	PR	Guarapuava - Ponta Grossa – Auracaria	406	30% Cartellone Inversiones S.A. 18% America Empreendimentos S.A. 10% Grin Investimentos Ltda
Econorte	PR	SP state border – Cambé – Londrina – St. Antônio da Platina	341	100% TPI
Ecovia	PR	Curitiba – Matinhos – Paranaguá	175	100% EcoRodovias
TOTAL				

Source: Brazilian Association of Highway Concessionaires (ABCR)



#### Northeast



Concessionaire	State	Section		Main shareholders
Bahia Norte	ВА	Aratu - Camaçari - Aeroporto Lauro de Freitas		50% Invepar 50% Oderbrecht Transport S.A OTP
CLN	LN BA Lauro de Freitas - Abadia		217	91.5% Invepar / 8.5% OTP
Rota dos Codileiros   PF		Jaboatão dos Gararapes - Cabo de Santo Agostinho	7	75% Oderbrecht Transport S.A.
Rota do Atlântico PE Cabo de Santo Agostinho – Port of Suape - Ipojuca		43	50% Invepar / 50% OTP	
TOTAL		2,495		

#### Municipal

There are currently 2 municipal roads that have been granted to private sector:

Municipality	Municipality State Concession		km	Main shareholders
Linha amarela S/A (LAMSA)	The toll road project connects the Ilha do Fundão, an industrial zone in the northern part of the city to Barra da Tijuca, in the western part of Rio de Janeiro.		100% Invepar	
Transolímpica	The toll road was concessioned in 2012 and it will have three lanes in each direction and a center lane for bus rapid transit (BRT).		26	33,4% Invepar 33,3% CCR 33,3% OTP

Source: Brazilian Association of Highway Concessionaires (ABCR)





# Railways - overview

#### Overview

972.5 km of extension and 38 lines. Brazil has 15 subway/urban rail systems, 6 of which belong to the Federal Government, 6 to the States, 1 to a municipal administration and 3 are private concessions.

Considering the contracted and under construction PPPs, Brazil will have 25 new projects by 2020.



Brazilian largest cities face a challenge in Urban Transportation. There is a big gap in this kind of infrastructure and the local governments are making efforts to develop new projects of Metros, Trains, Light Rails and Monorails.

The São Paulo Metro was founded in 1968. Today it is the largest and the busiest metro network in the country servicing 4,7 million passengers per day in 2014. Moreover, is considered one of the busiest metro in the world.

#### **Need for investments**

Brazil's largest cities face a challenge in Urban Transport. There is a huge lack of infrastructure, and local governments are making efforts to develop new metro, train, light rail, and monorail projects. With the implementation of "PAC Mobilidade Urbana Médias Cidades", a federal development program launched in 2012, the Government hopes to improve urban mobility.

According to BNDES, a total investment of BRL 53 billion in urban mobility is expected for the period of 2014 – 2017. In the coming years Brazil would double the volume of investments in major metropolitan, compared to the last 20 years.

Following the observed trend in recent years, BNDES predicts an average annual growth rate for investment in the sector of 30% over the next four years.

Sources: BNDES; ANTPTrilhos



# Railways - Primary Market Opportunities

#### São Paulo investment program and Federal program

The State Government of São Paulo expects to increase the 74 km of subway lines to 200 km by 2018, heavily financed by PPP and loan investments by the BNDES.

Of this total investment, approximately BRL 26.2 billion will be spent on innovation, integration, and expansion of subway lines.

A relevant project is São Paulo Intercity Railway, that will link 9 cities: São Paulo, Santos, Mauá, São Caetano, Santo André, Jundiaí, Campinas, São José dos Campos, and Sorocaba in a 431 km line. The network is scheduled to start operating on 2016, and to be fully completed by 2020.

Project	Description	Investment
Intercity Rail Network	431 km of intercity lines from São Paulo to: (i) Santos –ABC; (ii) Sorocaba; (iii) Campinas; and (iv) São Jose dos Campos; it will serve 330 thousand passengers per day	BRL 18.5 billion
Line 20 - Pink	Line between Lapa and Moema: 12.3 km, 14 stations; it will serve 470 thousand passenger per day.	BRL 9.1 billion
Line 7 – Rubi Express Jundiaí	New rail line between São Paulo and Jundiaí. The line extension is 48 km.	BRL 1.85 billion
Line 10 – Turquoise / ABC Express	25 km, 6 stations, CPTM project to integrate the ABC Paulista region to the center of Sao Paulo. The line will serve 330 thousand passengers per day and its due to 2016.	BRL 1.5 billion
Line 2 expansion - Tiradentes Monorail	24 km, 16 stations. New Monorail line between Vila Prudente and Tiradentes station (Line 2 – Green)	BRL 1.4 billion
Integrated urban transport system (STM/EMTU)	25-year PPP for construction and operation of 39 bus lines with 11.2km each one	BRL 688 million

The main project at the federal level is the High Speed Rail link between Campinas, São Paulo and Rio de Janeiro (TAV), as detailed in the table below.

Project	Beginning/ End	Description	Extension	Investment
TAV High-Speed Rail link between Campinas, São Paulo and Rio de Janeiro	Campinas (SP) – Rio de Janeiro (RJ)	The Federal Government divided the concession into two contracts: (i) operations, rolling stock and technology and (ii) construction. The project is on hold since August 2013.	511 km	BRL 35 billion



# Railways - Primary Market Opportunities

#### Other state projects

Project	Description	Extension	Investment
Metro Blue Line (Curitiba)	Greenfield subway system connecting south side of town ( CIC Sul) to downtown (Cabral). 35-year PPP concession.	17.6 km	BRL 4.5 billion
Metro Expansion (Belo Horizonte)	Expansion of Line 1 (28 km) and construction of Lines 2 (20 km) and Line 3 (12.5 km).	28 km	BRL 3.3 billion
Metro Line 1 (Porto Alegre)	Line 1: 11,7 Km .Geenfiled subway system, 10,5 Km , connecting DAER to Antônio de Carvalho.	11,7 km	BRL 5.3 billion
Metro Line 3 (Rio de Janeiro)	37,2 km. Greenfield subway system connecting Niterói to São Gonçalo, with 16 stations.	37,2 km	BRL 1.7 billion
Metro Line 4 (Rio de Janeiro)	14 km. Greenfield subway system connecting Barra da Tijuca to Ipanema, with 6 stations. (Jardim Oceânico, São Conrado, Gávea, Antero de Quental, Jardim de Alah e Nossa Senhora da Paz)	16 km	BRL 5.0 billion
Pequi Express (Goiás)	The 185-190km railroad will run through the city of Anápolis. The project will support the region's growing population connecting Brasília, Anápolis and Goiânia. The line will be around 190km long and it will also be used by freight cargo trail. Currently the project is in the feasibility study stage by the consortium VEGA / LOGIT / JGP / MMSO	190 km	BRL1.2 billion
Light Rail Projects (LRT)	Cuiabá (22km) – Under Construction Santos (16,9 km) – Under Construction Goiânia (13,6km) – Under Construction Rio de Janeiro (28km) – Under Construction Fortaleza (12,7km) - Under Construction	93,4 km	Over than BRL 10 billion
4 <sup>th</sup> Connection to Florianópolis - Island	Public transit system between the mainland and the state capital of Florianópolis. After receiving a wide range of proposals from a previous RFI in August 2012, the state government divided the project in two, with one part dealing with public transit alternatives and the other with the construction of a bridge or a tunnel.	N.A.	BRL 1.4 billion
Canoas Monorail	15km monorail line of PPP/concession with the Canoas city government and Brazilian engineering firm Aeromóvel Brasil. The city of Canoas has 320,000 inhabitants and is within the metropolitan region of Porto Alegre, the state capital of the southern state of Rio Grande do Sul.	15 km	BRL 950 million

Sources: ABDIB; ANTPTrilhos



# Railways - Secondary Market Opportunities

#### **Secondary Market Transactions**

In November 2014, Odebrecht Transport (60%) partnered with Mitsui (40%) established a subsidiary which includes Odebrecht Transport's urban mobility projects.

In November 2010, Odebrecht Transport bought 61.0% of the state-owned Supervia, which operates the train network in Rio de Janeiro Metropolitan area.

In March 2009, Invepar bought a 97% stake of the state-owned MetroRio, which operates the Metro network in the city of Rio de Janeiro.

#### **Urban Transportation Concessions**

Brazil's largest cities face a challenge in Urban Transport. There is a huge lack of infrastructure, and local governments are making efforts to develop new metro, train, light rail, and monorail projects.

Concessionaire	State	Extension	Stations	Traffic (pax/week day)	Shareholders	
ViaQuatro (Line 4 SP)	SP	8.9 km	6	550,000	58% CCR	
MetrôRio	RJ	41 km	35	757,411	100% Invepar	
Supervia	RJ	269 km	99	515,903	61% OTP	
Move São Paulo (Line 6 SP)	SP	15.3 km	15	630,000 (estimated)	37.5% OTP 37.5% Queiroz Galvão 25% UTC Part.	
ABC Integrado consortium (Line 18 SP)	SP	14.9 km	13	315,000 (estimated)	Primav Encalso Cowan Benito Roggio	
CTRENS	SP	PPP for tra	P for train supply and Maintenance for Line 8 CPTM		100% CAF	



# Railways - Secondary Market Opportunities

#### Privatization or concession for maintenance and operation

PPP and Concession contracts are already a reality in new Urban Transportation projects, but there might be a trend of acquisitions of public companies by the private sector.

Company	Cities	Services	Main Shareholders
СВТИ	Belo Horizonte, João Pessoa, Maceió, Natal e Recife	Trains and Metros	100% Federal Government
СРТМ	São Paulo and metropolitan area	Trains	100% São Paulo State Government
Metro SP	São Paulo and metropolitan area	Metros	100% São Paulo State Government
Trensurb	Porto Alegre	Trains	99.2% Federal Government
стѕ	Salvador	Trains and Metros	100% City of Salvador
Metrofor	Fortaleza	Trains and Metros	Ceara State Government
СМТР	Teresina	Trains and Metros	Piauí State Government







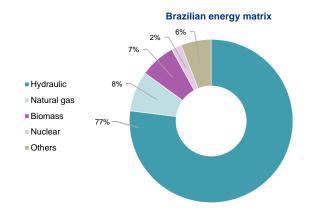
### Power - Overview

#### **Overview**

Brazil's installed power generation capacity grew up to 137 GW in 2014, from 134 GW in 2013. While hydropower still holds the most representative stake in the Brazilian energy matrix, reaching 77% of power generation in the country, other energy sources have increased its participation.

Adding imports, which are mainly from renewable sources, the Brazilian energy matrix achieve almost 80% of electricity from renewable sources.

The expansion of the installed power generation capacity of the National Interconnected System (SIN), forecasted at PDE (Ten-Year Energy Expansion Plan) for the decade 2014-2023, is 71,087 MW, representing an increase of 57% compared to 2013.

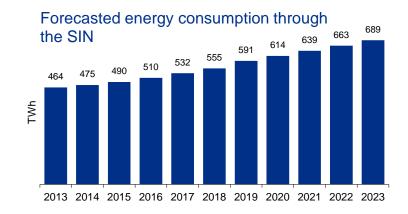


#### **Transmission System**

Brazil has a system called "National Interconnected System (SIN)," which is responsible for transmitting 98% of the Brazilian production capacity. The northern region represents the other 2%, the rest of the internal transmission system.

#### **Energy consumption**

According to Electric Power Research Corporation (EPE), in the next 10 years, the consumption of electricity in Brazil is going to have a growth of roughly 4% per year, an increase of 49% compared to current consumption.







# Power - Primary Market Opportunities

#### **Opportunities**

Forecasts for investments in the Brazilian electricity sector from 2015 to 2018 is roughly BRL 186 billion, of which BRL 70 billion are going to be invested in transmission.

Wind complexes have had a huge support from Government to development of this market in the country. In terms of investments, wind power is the second source which should receive more investments in the next years, roughly BRL 43 billion by 2017.

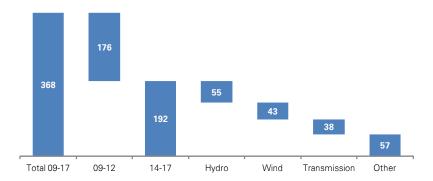
In third place comes investments in electricity transmission, with more than BRL 37.6 billion.

Until the end of 2017, it is forecasted at least BRL58 billion in investments in renewable energies such as wind and solar.

The Government intend to hire more than 27 GW of power generation by 2017 and approximately 19,000 km of power transmission.

Transmission (2014-2017)	Km	Investment	
Defined TL	13,321	BRL 38 billion	
Estimated TL	6,337	BRE 30 DIIIIOII	





Sources: ANEEL; EPE



#### The Power sector

The Ministry of Mines and Energy is responsible for developing energy policies and for the concession of services.

The National Electric Power Agency (ANEEL) is responsible for the regulation of the sector, and the Electric Power Research Corporation (EPE) is responsible for the long-term planning of the sector.

The National Integrated System (SIN) is a high-voltage transmission system that interconnect the South, Southeast, Central-West, and Northeast regions of Brazil, which consume 98% of the energy produced.

Government has held a relevant participation in this market, which 5 out of the 10 largest companies of the sector are state-owned.

It is a highly concentrated market: roughly 1% of the sector companies have 69% of the total generation capacity.

According to the ANEEL, of the total grants operation until 2021, certain cases present problems of restriction or serious restrictions, as shown in the following table:

Туре	2014	2015	2016	2017	2018-2021	No Prediction
No Restrictions (MW)	4,036.9	7,253.9	5,132.1	4,014.4	5,732.7	-
With restrictions (MW)	156.7	4,015.3	2,689.1	953.0	2,152.5	-
With Serious Restrictions (MW)	-	-	-	-	-	4,150.9

The Federal Government holds 54% of the ordinary shares Eletrobrás. The company is responsible for 38% of all power generation in the country and 56% of the length of transmission lines.

In Brazil there are two types of energy market: regulated market and free market.



#### **Power Concessions**

Some key players in the Brazilian wind energy market: CPFL Renováveis, Renova Energia and EDP Renováveis.

Important turbine manufacturers include Wobben/Enercon, IMPSA, Suzlon, GE and Vestas.

According to the Ministry of Planning, the concession agreements of 67 generators (18.2 GW), 47 distributors, and 9 energy transmission operators in Brazil will begin to expire in 2015.

From 2007 to 2014 third quarter, 236 M&A transactions were completed in Brazil. The table below present the major transactions of the last three years. Free market is the generators that can trade freely energy with free consumers, such as industries. Buyers and sellers sign a contract with specific volume and at a specific energy price.

The free market represents roughly 27% of the total market.

Bidder	Target	Divestor	Year
Bolognesi	Multiner	Camille Loyo Faria	2012
CPFL Energia	BVP S.A.	Fund investment In participations Brazil Energy Servtec investments and participations Ltda., Fund investment participations progress and some people physical.	2012
Companhia Energética de Minas Gerais (Cemig)	Renova Energia S.A.	N.A.	2013
Mitsui & Co Ltd	Esbr Participações S.A.	GDF Suez S.A.	2013
Banco Modal	Santo Antonio Energia	Andrade Gutierrez	2014
Enersis	Coelce – Companhia Energetica do Ceara	Private Investors	2014



#### Generation

Though Brazil has 137 GW of installed capacity, the Brazilian Government has worked for increase its energy matrix, for instance the Government has auctioned 697 new projects looking for increase the installed capacity in 28%. ANEEL has executed four wind power auctions, in 2009, 2010, 2011 and 2013, contracting a total of 9,622 MW.

The most representative power generation companies are public owned, mainly Eletrobrás subsidiaries. Power generation concessions have a maximum term of 35 years.

Company	Installed Capacity (MW)	National Market Share	Major Shareholders	
CHESF	10,615	9.1%	99% Eletrobras	
Furnas	9,855	8.3%	99% Eletrobras	
Eletro-norte	9,176	7.8%	99% Eletrobras	
CESP	7,461	6.4%	60% Free Float 35% Government of Sao Paulo	
Tractebel	7,322	6.1%	69% GDF Suez	
Itaipu	7,000	6.0%	Brazil and Paraguay Governments	
CEMIG	6,818	5.8%	26% ADRs 22% Government of Minas Gerais	
Petrobrás	6,118	5.2%	28% Government of Brazil 11% BNDESPar	
COPEL	4,929	3.9%	85% Government of Parana	
AES Tietê	2,652	2.3%	50% + 1 AES Corporation 50% - 1 BNDES	



#### **Transmission**

Brazil has 108,560 km of energy transmission lines, more than 55% of which are operated by publicly-owned companies, mainly Eletrobrás.

In April 2016, ANEEL promoted an transmission concessions auction: 14 concession were awarded, which comprises a total investment of BRL 6.87 billion (3,402 km).

#### **Distribution**

There are 63 distribution companies in Brazil (9 in North region, 11 in Northeast region, 5 in Central-West region, 21 in Southeast region and 17 in South region).

Distribution concessions have a maximum term of 30 years.

Company	Electric power consumption (GWh)	National Market Share	Main Shareholders
AES Eletropaulo	37,626	12.18%	51% AES Corporation / 49% BNDES
CEMIG	24,713	8.00%	26% ADRs / 22% Government of Minas Gerais
COPEL	23,279	7.54%	85% Government of Parana
CPFL	21,467	6.95%	31% PREVI / 30% Free Float
Light	20,054	6.49%	32% Free Float / 26% CEMIG
CELESC	15,018	4.86%	20% Government of Santa Catarina / 15% PREVI
COELBA	14,737	4.77%	39% IBERDROLA / 22% PREVI
Elektro	12,081	3.91%	99% IBERDROLA
CELG	10,411	3.37%	99% Government of Goias
CELPE	9,833	3.18%	39% IBERDROLA / 22% PREVI





# Public Lighting-Overview

#### **Overview**

Brazilian Federal Constitution states that the responsibility of organization and delivery of public services of local interest belong to Municipalities.

ANEEL (National Electric Energy Agency) normative Resolution 414/2010 transferred to the municipalities the responsibilities of maintenance of the infrastructure of street lighting, such as posts, lamps and reactors.

In December/2013, ANEEL established the deadline for transfer of assets until December/2014.

Services like project development, implantation, expansion, facilities, maintenance and energy consumption will be managed by the municipality.

The transference of public lighting management to Municipalities creates opportunities for Concession Agreements or Public Private Partnerships in virtually all municipalities in the country.

#### **Energy Efficiency**

The setting of PPP Public Lighting projects is motivated by Energy Efficiency.

Energy Efficiency (EE) is the optimization in the use of energy resources using less energy to provide the same amount of energy level.

Ways to achieve Energy Efficiency:

- ✓ Using more efficient lighting sources (i.e. LED);
- ✓ Optimize the maintenance of networks and equipment;
- ✓ Using renewable energy sources (i.e. solar, wind and biomass).

Thus, the concession of Public Lighting services to private parties should induce the achievement of Energy Efficiency.



# Public Lighting-Primary Market Opportunities

#### **Opportunities**

ANEEL normative resolution should create opportunities for Public Private Partnerships in virtually all municipalities in the country, specially in cities where the PPP regulatory framework is established and tested, and considering that:

- ✓ Concession and PPPs imply that the Municipality does not have to invest directly in public lighting.
- ✓ Led technology is still not adopted in public lighting reduction of consumption with the adoption of new technologies.
- ✓ Continuous technological updates in the sector, private sector more prepared to promote changes.

Table below shows main locations that have started Expression of Interest procedures for PPPs and should promote bids for large scale projects:

Project	Population (M)	Bid Schedule
São Paulo	11.8	2016
Distrito Federal	2,9	2017
Salvador	2.7	2016
Curitiba	1.8	2016
Cuiabá	0,5	2016

Brazil State Capitals: Opportunities in Medium-Big Sized Cities (Population from 0.2 to 11 million)



Sources: ANEEL; EPE





### Social Infrastructure - Healthcare

#### **Healthcare**

Brazilian public hospitals and healthcare sector current situation are characterized by:

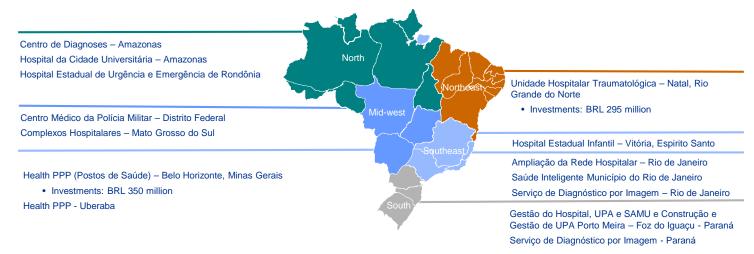
- Limited supply, with lack or inexistence of hospitals in some regions, particularly in the North and Northeast;
- Limited workforce (doctors and specialists), specially in rural regions;
- Poor service quality;
- Poor infrastructure; and
- Poor equipment maintenance.

#### **Need for investments**

According to the Ministry of Health, in the last 3 years, Brazil has spent 4% of its GDP in public health, equivalent to about BRL 190 billion, with most of the resources coming from the Federal Government

#### **Opportunities**

There are already 11 Hospital PPP in Brazil and other 14 projects in the pipeline of opportunities, presented in the map below:





# Social Infrastructure - Secondary Market Opportunities

#### Healthcare

The national average of hospital beds per 1,000 inhabitants was 2.3 in 2009, the worst situation in the Northern region, with only 1.8 beds for every 1,000 inhabitants.

Brazilian Constitution allows the private initiative to operate on healthcare sector, preferably non-profit organizations, such as NGOs.

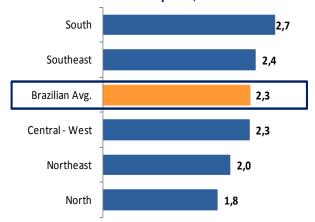
This is why in the 1990s, public hospitals started to be partially or totally managed by non-profit organizations.

Since the most significant hospital costs are due to operations and equipment, concession and PPP agreements are considered to be a good alternative for resolving the shortfalls in the health services.

#### Public Spending with Health (% of GDP)



#### Number of beds per 1,000 inhabitants







# Social Infrastructure - Secondary Market Opportunities

#### The Brazilian Healthcare System

Brazilian regulatory framework changed in 2015, enabling international capital to invest directly in hospitals. Until law 13.097/2015 was created, international investment was only allowed in health insurance companies. This creates opportunities for investment in virtually all private hospitals in the country.

Even though Brazilian Law requires States and Municipalities to spend 12% and 15%, respectively, of all tax revenues on public health, this is not enough for the demand.

There are 9 Hospitals PPPs in Brazil, in 5 different states. In these PPP contracts, the private partner is responsible for all hospital construction, operations, and maintenance.

Hospital	Grantor	Beds	Investments	Term	Winning Consortium
Hospital do Suburbio	Bahia State	400	BRL 54 million	10 years	Promedica and Dakia
160 Basic Health Units	Amazonas State	N/D	BRL 59 million	N/D	Magi Clean and SH Engenharia
North Region Hospital	Amazonas State	200	BRL 391 million	20 years	Zona Norte Engenharia
Couto Maia Institute	Bahia State	155	BRL 75 million	20 years	MRM and SM Gestão Hospitalar
Hospitals Complex	São Paulo State	675	BRL 722 million	20 years	Construcap
Metropolitan Hospital Center	Ceara State	432	BRL 261 million	25 years	Marquise, PB Construções and Vivante
Metropolitan Hospital Center	Belo Horizonte	298	BRL 156 million	20 years	Tratenge and Planova
PPP Image Diagnosis	Bahia State	12 health centres	BRL 1 billion	11 years	Rede Brasileira de Diagnostico, formed by Philips, Alliar and FIDI
Rede de Atenção Primária	Belo Horizonte	77 health centres and one laboratory	BRL 52 million	20 years	Consórcio APS BH, formed by Odebrecht and Cowan.



## Social Infrastructure - Education

#### **Education**

The Brazilian Public Educational System suffers from poor quality. An assessment of elementary school knowledge, covering 65 countries, ranked Brazil in 58th place (PISA - 2012).

#### **Need for investments**

To achieve all of the goals of the National Education Plan (2011-2020), USD 186 billion per year is required, doubling the actual investment in education. Brazilian legislators recently approved to invest 10% of its GDP in the education, in contrast to current investment, of 6.5 % of GDP. At the Federal level there are financing programs to foster education, such as Prouni, that promotes college education for the poor, and Fies, a public fund destined to financing education.

The direct public investment per student in the country today should be at least 40% to 50% higher to provide good quality education.

#### **Opportunities**

There are primary market opportunities in educational infrastructure and management and a secondary market opportunity

Project	Description	Investment
Minas Gerais	Expression of Interest for feasibility studies for PPP for construction, maintenance and operation of non educational services of 55 schools.	N.A.
Espirito Santo	The Secretary of Education of the State of Espirito Santo has recently authorized Odebrecht and Socicam in an Expression of Interest procedure for the construction and operation of non pedagogic services in 20 new school unities, following model contracted by Belo Horizonte (MG) municipality.	N.A.
Uberaba – MG	Socicam Administração de Projetos e Representações was the only company in the educational area to demonstrate interest in the development of na Expression of Interest Procedure. Uberaba Government Is looking for PPP opportunities in different areas, including education.	N.A.
Goiás	The Government of the State of Goiás is interested in developing PPP projects in the education area.	N.A.

Belo Horizonte	There is a PPP in operation in the municipality of Belo Horizonte, for construction and operation of non educational services in 51 schools attending over 24 thousand students.	N.A.
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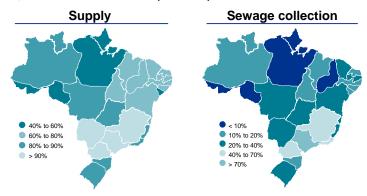
# Water & Sewage - Overview

#### Overview

According to National Information System of Sanitation (SNIS,2014), 83,0% of total households have access to water services, but only 49,8% have access to sewage collection.

Of all the sewage generated, only 40,8% is treated. The rest is discharged in the environment.

The major concern is with North, Northeast and South regions, which sewage collection is 14,4%, 31,4% and 36,9% of households respectively.



#### **Need for investments**

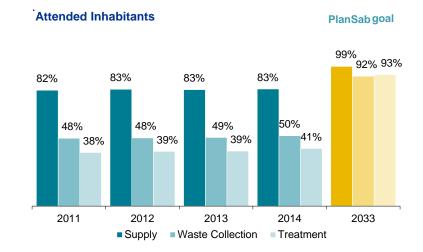
The goal of the Brazilian Federal Government is to provide treated water to 98% and sewage collection to 88% of Brazilian homes until 2030.

For ABDIB (Brazilian Infrastructure Association) are needed over 20 years, to universalize access to water and sewage services, BRL 350 billion of investments.

Besides the need for new investments to increase service coverage, approximately 1,300 existing contracts in the water and sewage sector will expire by 2016. These concessions serve approximately 18% of the Brazilian population.

Only 10% of sanitation market is held by Private Companies under concession and public-private partnership (ppp) scheme and over 70% by State Owned Corporations.

To the next couple of years, is expected that private investment increase substantially in the municipality sphere, specially in the cities with over 200,000 inhabitants.





# Water & Sewage - Primary Market Opportunities

Project	Description	Investment	Status
Sewage PPP Rio de Janeiro	Government of Rio de Janeiro is studying a PPP for Baixada Fluminense and Metropolitan East to attend over 5 million people.	N.A.	Studies phase
PPP Semasa Santo André	PPP for operation and maitenance of system of water supply and sewage of Nova ETA.	BRL 600 million	Public consultation
PPP SES Pelotas – RS	PPP to Build an operate of de Sewage System of the Pelotas in Rio Grande do Sul.	N.A	Expression of interest publication
PPP SES Vila Velha	PPP to expand, operate and maintain of the Sewage System of the Vila Velha, and support to commercial management service for CESAN. The contract length is 30 years.	BRL 1.6 Billion	Expression of interest publication
PPP SES Vale do Juqueri, for the Government of SP State	PPP to build, operate and maintain of the Sewage System of the Vale of Juqueri region (250,000 inhabitants). The contract length is 30 years.	BRL 835 million (estimated)	Preliminary proposal approved
PPP SES and SAA Pedro II, for the Government of Piauí Sate	PPP to universalize the water and sewage services in the city of Pedro II (40,000 inhabitants).	N.A.	The business model is under development
PPP SES and SAA Campo Maior, for the Government of Piauí State	PPP to universalize the water and sewage services in the city of Campo Maior (45,000 inhabitants).	N.A.	The business model is under development
PPP SES for the Government of Rondônia State	PPP to universalize the sewage services and improve commercial management practice in the State of Rondônia, covering the CAERD perimeter.	N.A.	Expression of Interest publication
PPP SES Sabesp in the cities: Santos, São Vicente and Praia Grande	Administrative PPP to adapt and operate sewage treatment systems in addition to the actions of the Onda Limpa Program. The contract length is 25 years.	BRL 427 million	The business model is under development
PPP Paranoá Adductor System for the Government of Distrito Federal	The Government of Distrito Federal is studying a 35 year PPP, that has for its objectives, the treatment of sewage, using water from the Paranoá river on a water treatment facility.	BRL 400 million	The business model is under development
PPP SES and SAA for the Government of Mato Grosso do Sul State	The Government of Mato Grosso do Sul is studying the possibility to implement a PPP to universalize the water and sewage services in the state.	N.A.	Early stage



# Water & Sewage - Secondary Market Opportunities

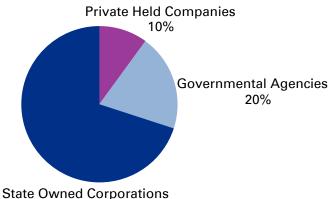
#### **National Policy for Sanitation Sector**

In 2007, a regulatory framework was established (Federal Law No. 11.445). This law established a federal policy for water and sewage collection services to be followed by States and Municipalities in order to obtain federal resources for the projects.

Additionally, the law allows concession holders to outsource sanitation services, making the sanitation market more competitive. Formerly the market was dominated by state-owned companies, which in most cases were inefficient

States own the majority of shares of both privately and publicly owned companies. Population Served, by Type of provider:

70%



Private companies are now competing for the many opportunities in the Brazilian sanitation market. These sanitation companies are usually subsidiaries of large construction companies, such as Odebrecht, Galvão Participações and Queiroz Galvão.

#### **Secondary Market Transactions**

- Companhia Águas do Brasil acquired Águas de Itu Exploração de Serviços de Água e Esgoto S.A in September 2014.
- Odebrecht Ambiental acquired a 23,5% stake in Saneatins (Tocantins sewage company) in October 2013.
- OAS Soluções Ambientais bought 100% shares of SANEAR- Saneamento de Araçatuba in July 2013
- AEGEA and GIC (Singapore's Sovereign Wealth Fund) closed a according through which the GIC will subscribe to a capital increase of BRL 300 million;
- After the transactions, the shareholders of AEGEA are: Equipav Group, GIC and International Finance Corporation (IFC);
- Foz do Brasil acquired a 50% stake in Águas de Limeira from Suez Environmental / Solvi:
- Foz do Brasil acquired Ecosama (Mauá-SP) from Gautama;
- FI-FGTS acquired a 26,5% stake from Foz do Brasil in 2009.



# Water & Sewage - Secondary Market Opportunities

Concession agreements may be: (i) Partial Concession (water or sewage paid by user); (ii) Full Concession (water and sewage paid by user); (iii) Partial PPP (water or sewage paid by government); or (iv) Full PPP (water and sewage paid by government),

Concession/PPP Grantors are usually municipal governments, but they may also be state-owned companies, through sub-concession agreements. Major Private Players in Sanitation Sector:

Companies	States of Operation	Contracts
Águas do Brasil Group	RJ,MG and SP	Water and Sewage PPP Partial and Full Concession
Odebrecht Ambiental (Odebrecht Group)	TO, PE, SP, MG, SC, BA, RJ, ES, PA and RS	Water and Sewage PPP Partial and Full Concession
AEGEA ( Equipav Group)	RJ, MS, SC, SP and MT	Partial and Full Concession
CAB Ambiental (Galvão Participações) (*)	AL, PR, SP, MT and RJ	Water and Sewage PPP Partial and Full Concession
GS Inima	SP and AL	Partial and Full Concession
OAS Ambiental (**)	SP	Sewage PPP Partial and Full Concessio
Solví	AM and RS	Full Concession
Perenge Group	MT and PA	Full Concession
Brasil Central Engenharia	MT e GO	Partial and Full Concession
Consortium Sistema Produtor São Lourenço (Andrade Gutierrez and Camargo Corrêa)	SP	Water PPP

<sup>\*</sup> Galvão Participações is selling part of is stake - Process ongoing

<sup>\*\*</sup> OAS S.A. is selling is 100% stake - Process ongoing





### Solid Urban Waste - Overview

#### **Overview**

According to ABRELPE\*, Brazil produces daily almost 209,280 tons of Solid Urban Waste (SUW). Of this total, only 58% underwent the proper treatment.

Being the most populated region of Brazil, the Southeast region produces nearly 100,000 tons daily, being roughly 52% of the entire production of SUW of the country.

Approximately 82% of the waste generated in the Southeast is redirected to a proper destination, which is a sanitary landfill.

#### **Need for investments**

The Growth Acceleration Program (PAC) has invested, since 2007, BRL 52,24 billion in Sanitation, being BRL 460 million for Solid Urban Waste.

By 2030, the Government hopes to invest BRL 16 billion in Solid Urban Waste treatment, which is part of the National Plan of Sanitation.



# Solid Urban Waste - Opportunities

Project	Description	Investment	Status			
	Primary Market					
PPP SUW for the Government of Distrito Federal	Administrative PPP of the Government of Distrito Federal whose objective is the operation of services of sweeping, collection and transportation. The contract length is 30 years.	BRL 11,7 billion	Public Hearing ended			
PPP SUW of Ribeirão Preto, for the Government of SP State	Administrative PPP of the Municipality of Ribeirão Preto (590,000 inhabitants) whose objective is the operation of services of sweeping, collection and transportation. The contract length is 30 years.	BRL 272 million	Public Hearing ended			
PPP SUW of Guarulhos for the Government of SP State	The Municipality of Guarulhos has started a PPP study for the complementation operation and maintenance of the municipality's urban waste.	BRL 1,1 billion	Tender process ended			
PPP SUW of Londrina, for the Government of PR State	The Municipality of Londrina (485,000 inhabitants) has started a PPP study for the complementation, operation and maintenance of the municipality's urban waste.	N.A.	The business model is under development			
PPP SUW of Salto, for the Government of SP State	The Municipality of Salto (105,000 inhabitants) has started a PPP study for the complementation, operation and maintenance of the municipality's urban waste.	BRL 110 million	Tender process on going			
PPP SUW of Maringá, for the Government of PR State	PPP of the municipality of Maringá (342,000 inhabitants) has started a PPP study for the collection, treatment and final destination of the solid urban waste. The contract length is 30 years.	BRL 1,1 billion	On hold			
PPP SUW of Jundiaí, for the Government of SP State	PPP of the municipality of Jundiaí (354,000 inhabitants) has started a PPP study whose objective is the collection and transportation of the solid urban waste.	N.A.	Public Hearing ended			
PPP SUW of Goiânia, for the Government of GO State	PPP of municipality of Goiânia (1.29 million inhabitants) has started a PPP study for treatment and collect of the solid urban waste.	N.A.	Feasibility studies ended			



# Solid Urban Waste - Opportunities (cont.)

Project	Description	Investment	Status
	Primary Market		
PPP SUW of Sorocaba	Administrative PPP of the Municipality of Sorocaba whose objective is the operation of services of sweeping, collection and transportation.	N.A.	Early stage
PPP SUW of Cuiabá	Administrative PPP of the municipality of Cuiabá has started a PPP study for water treatment systems, urban sanitation and solid waste management services.	N.A.	Public Hearing ended

Project	Description	Investment	Status		
	Secondary Market				
PPP SUW of the Itu (São Paulo State)	The municipality of Itu established a PPP contract for the urban cleaning and solid waste management The contract length is 30 years	N.A.	Contract sign on April -2014 (Eppo Saneamento Ambiental e Obras Ltda)		
PPP SUW of the State of Minas Gerais	The State of Minas Gerais established a feasibility study in 2010 of a PPP project concerning the treatment of solid waste. Forty four municipalities are involved in the project. The contract length is 30 years	BRL 373 million	Contract sign on July-2014. Consortium between Vital Engenharia Ambiental; Revita Engenharia; e Construtora Barbosa		
PPP SUW of the Cabreúva (São Paulo State)	The municipality of Cabreúva established a PPP contract for the urban cleaning and solid waste management The contract length is 30 years	N.A.	Contract sign on January - 2016 (Eppo Saneamento Ambiental e Obras Ltda)		
PPP SUW of Taubaté (São Paulo State)	The municipality of Taubaté established a PPP contract for the urban cleaning and solid waste management The contract length is 30 years	N.A.	Contract awarded on April - 2016 (Marquise FortNort consortium)		







### Defense - Overview

#### **Overview**

From 2014 to 2015 the budget for the Ministry of Defense has increased by 6.5%, reaching BRL 78.8 billion (USD 29.8 billion). This increase is opposite to the trend in developed countries, where defense budgets are being constantly reduced.

### Ministry of Defense - Budget by Unit (R\$ bi)



Since 2004, the budget for investments in the sector have increased by 672% in absolute terms, from BRL 1.1 billion (USD 416.7 million) in 2004 to BRL 8.5 billion (USD 3.2 billion) in 2015.

According to Sipri (Stockholm International Peace Research Institute), Brazil is in the 11th position in terms of military spending in the world, with the three first positions being occupied by USA, China and Russia. The contracting of Public-Private Partnerships in the defense sector has been authorized by Federal Law n° 12.598/12, which regulates purchases related to the Defense sector. The new law also creates the Special Tax Regime for the Defense Industry (RETID), which exempts companies that are part of the production chain of strategic defense products from several taxes and creates incentives for exports.

The Brazilian Government recently announced the National Defense Policy, a program which aims on investing BRL 13.1 billion (USD 6.5 billion) on infrastructure projects under responsibility of the Brazilian Ministry of Defense. A third of the program's resources are destined to three projects:

- Development and modernization of the Airspace Control System;
- Deployment of shipyard and naval base for construction and maintenance of conventional and nuclear submarines;
- Development of Tactical Military Cargo.

The Ministry of Defense established guidelines for Public-Private Projects and some priority areas for the implementation of this kind of project. Some of this areas are:

- Technological and scientific production
- Strengthening of space, cyber and nuclear industries
- Developing the potential of defense logistics and national mobilization.



## Defense - Opportunities

The MoD has announced 75 projects related to the Armed Forces. Six of these projects are included in the list of PPP projects which are considered priorities by federal government's public private partnerships board.

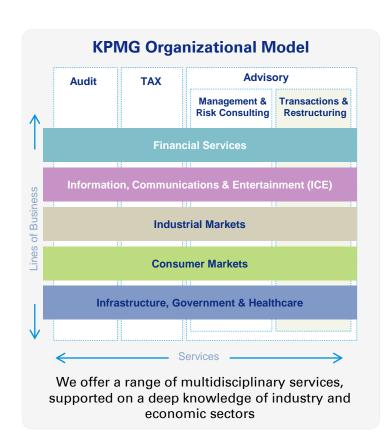
Projectc	Description	Investment
Residential Buildings in the Naval Complex of Itaguaí, Rio de Janeiro	Construction and maintenance of residential buildings for personnel that will be assigned to the facilities of the Military Organizations of the Naval Complex in Itaguaí.	N.A.
Navy Arsenal of Rio de Janeiro	Modernization of the infrastructure and operation of government bodies responsible for repair and maintenance of the naval assets.	N.A.
Military School in Manaus	Construction and maintenance of new Military School in Manaus – AM.	N.A.
Imbel Rifle	Manufacturing and maintenance of new rifle developed by the Brazilian Defense Industry.	N.A.
Physical Education Center	Construction of infrastructure and operation of the sports complex of the Admiral Adalberto Nunes Physical Education Center (Cefan).	N.A.
Guaratiba Technology Hub in Rio de Janeiro	The army is studying a PPP projetct for the construction and operation of a Technology Hub in Guaratiba, Rio de Janeiro, with 1,500 houses, technology institutes, schools, universtities and other facilities in a 600 thousand square meters area.	Over BRL 1.5 billion
Hospitals in Manaus	The army is studying a PPP project for the construction and operation of hospitals in Manaus, Amazonas.	N.A.
Amazon Multimodal Transport	Concession for construction of transportation system for the state of Amazonas, with logistics hub, in order to support border patrol and other activities in the area.	N.A.
New Military School in Belém	Concession for construction and maintenance of new military school in Belém, in the state of Pará.	N.A.





## Why KPMG - Who are we?

KPMG's mission is to turn knowledge into value, for the benefit of our customers, our employees and the capital markets.







We operate in 155 countries and count with the collaboration of more than 155,000 professionals worldwide.

Our global presence allows access to our best and most experienced professionals, providing a global perspective to local challenges.

KPMG in Brazil consists of approximately 4,000 professionals, operating in 22 cities, across 13 states and the Federal District.



## Why KPMG - KPMG International

KPMG is a global network of independent firms that provide professional Audit, Tax and Advisory services. We are present in 155 countries, with more than 155,000 professionals working in member firms around the world.

#### **KPMG**

#### Global Infrastructure

- KPMG is one of the leading companies in the provision of advisory services for infrastructure projects.
- Over the last years, KPMG has received numerous awards due to the quality of services provided.
- Our Infrastructure team is recognized worldwide as a leader in the development of innovative mechanisms for private sector involvement in infrastructure projects.
- We have teams specializing in strategic, financial and management advisory services for infrastructure projects.

#### **Experience in Infrastructure**

- We are pioneers in the development of models for PPP projects.
- Our Global Infrastructure Team has been a leader in privatization, concession and PPP projects in the infrastructure sector.
- We have over two decades worth of experience in assisting the private and public sectors in projects and transactions in the infrastructure sector internationally.
- Our history includes dozens of credentials in various countries and continents

KPMG is one of the leading companies in the world in the provision of financial advisory services for the infrastructure sector.

This fact is acknowledged by the market, **having been granted to us for several consecutive times the "Transport Financial Advisory of the Year" award by Infrastructure Journal**.



# Why KPMG - Differential advantages and value proposal

KPMG combines the critical differential advantages to successfully support our clients, because we have.

a proven and risk minimizing methodological approach	KPMG invests significantly in methodological development, a fundamental condition to always be at the forefront.  Our methodologies speed up and ensure the meeting of the established goals and deadlines.
a team that combines competencies and seniority in a balanced way	KPMG has a set of collaborators with multidisciplinary skills, that allows us to put at our clients' disposal the various relevant competencies for the adequate execution of projects in which we are involved.  In this sense, we bet in the mobilization of local resources of high seniority, with project and sector experience, and with an intense dedication.
a vast experience in the infrastructure sector in general	At a local level, we have an experienced team that has already took part in numerous projects in the infrastructure sector in general.  At a global and national level, KPMG has done numerous works in these sectors, in several countries, specially in Latin America, Europe, Australia and Asia.
invested in researches on the infrastructure sector	KPMG invests significantly in researches on the infrastructure sector, as can be attested by our international publications developed by the infrastructure team.  These researches aid us in the proper understanding of the challenges and answers, as well as the best practices in the sector.
independent advisory capacity	KPMG is not bound to any entity and, as such, provides independent consulting services to its customers.



## Why KPMG - Multidisciplinarity

The set of competencies that KPMG brings together, through its Advisory functions, allows an integrated offer of services throughout all the lifecycle associated with the asset.

### Advisory

### Structuring and Financing

- Business plan definition
- Financial Modeling
- Funding Structuring
- Competitive process and negotiation with financial institutions
- Assistance in Expression of Interest Procedures
- Support in public tenders

#### Construction and Beginning of Exploration

 Assistance in Great Projects

#### Refinancing

#### **Operations**

- Risk Management
- Internal Control
- Costs Optimization
- Field Force

### Restructuring / Alienation

- Business Valuation
- Evaluation of restructuring / alienation alternatives
- Vendor Due Diligence
- Identification, selection and contact with potential buyers
- Assistance in the IPO process



## Why KPMG - KPMG Brazil

KPMG's strong presence in each of the regions of Brazil is as important as its global presence.

Each year, the national offices win new challenges and achieve excellent results by providing services to clients in their cities with the same quality practiced internationally.

KPMG in Brazil consists in approximately 4,000 professionals, operating in 22 cities, across 13 states and the Federal District.



Recife Salvador Fortaleza Manaus Goiânia Brasília Belém Cuiabá

#### Researches and Publications- KPMG Brazil



Corporate Governance and Capital Markets



Reinsurance Market in Brazil



Private Equity and Venture Capital in Brazil



Accounting Transparency and Corporate Governance



Insurance Diagnosis in Brazil





## Why KPMG - Project History

Some of our main projects that we have worked in the last few years.

KPMG has been following, as a financial advisor, big national and international projects in the infrastructure sector

Having in mind the specific goals of each Project and its Developers, our value proposal essencialy envisions the following points:

- Extensive experience in developing financial models to support business plans and financial and economic feasibility studies;
- Extensive knowledge of the comercial and contractual premisses of infrastructure projects;
- Knowledge of the financial market;
- Independent financial advisor;
- Access to our international network, allowing contact with the best international practices; and
- Coordination of the financial advisory service with tax and accounting assistance.

The team at KPMG Brazil has an extensive experience in various sectors, specially in sanitation, transportation, sports, entertainment and culture, besides infrastructure in general:



















## Why KPMG - Advice during the life cycle of the infrastructure assets

Advice during the life cycle of the infrastructure assets

#### 5. Restructuring / Sale

- Contract review, litigations and investigations
- Operational and financial restructuring
- Advise the owner in the eventual disposal of the asset

#### 1. Strategy

- Strategic planning and feasibility/risk analysis
- Policy and legislation
- Financial model, preparation of the business case
- Definition of government positions and selection criteria

#### 4. Operation / Maintenance

- Contracts management
- Performance improvement
- Risks, controls
- Loan refinancing

#### model Acquisition strategy, pre-

- qualification
- Financial models and market testing with construction solutions

2. Procurement and contract

- Effective tax structures
- Bidding process and assets negotiation

#### 3. Implementation / Construction

Shareholders

Asset / **Project** 

Operation I Maintenance

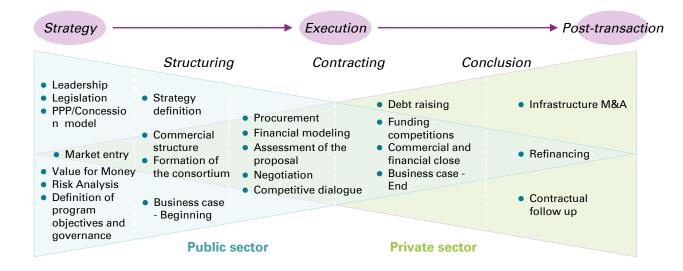
- Program review and risk control
- Governance and contract management
- Strategy / execution of funding



Strategy

## Why KPMG - Services lines

#### **Services lines**



"Our team has specific knowledge of the Global Infrastructure sector, acquired through the experience in important transactions in this market, at the national and international level, associated to a solid finance qualification. In addition to having earned a high position of credibility in the market, we have contributed to the development and to the definition of the practices of PPP/Concession projects."



## Why KPMG - Global Network



#### Global network

Currently, KPMG Global Infrastructure network operates in 110 countries, counting with 3,000 professionals working in firms worldwide. Therefore, KPMG Global Infrastructure has teams with global knowledge, with the skill set required in order to act in the various existing markets.





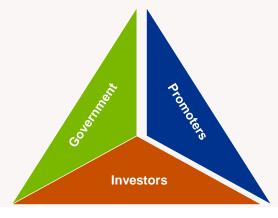
## Why KPMG - Sector Expertise

### Sector Expertise



#### **Our clientes**

- We have a wide national and international experience, allowing us to transmit to our clients a global perspective on the infrastructure sector, advising them in the various challenges that are faced.
- Our team has a wide experience in advisory, whether with the private or with public sector. As a result, we have acquired a high level of knowledge about our clients, allowing us to have a greater understanding of their needs, as well as their points of view.
- We advise our clients independently, being particularly useful in assisting in new sectors as well as in new locations.





## Why KPMG - Sector Expertise (cont.)

### Sector Expertise



#### Roads





#### KPMG Structured Finance

Acted as financial advisor to Government of the State of Minas Gerais in the Pilot Project of the PPP MG-050

> R\$ 720 million 2007

### KPMG



#### KPMG Structured Finance

Acted as financial advisor to a private company in the Transolimpica roadway expression of interest

> R\$ 1.8 billion 2011

### KPMG



#### KPMG Structured Finance

Acted as financial advisor on the economic and financial rebalancing of 12 road concession agreements in the State of São Paulo

R\$ 9.3 billion 2007

### KPMG



#### KPMG Structured Finance

Acted as financial advisor to the Ministry of Transportation on the development of the new PPP model for federal road concessions

R\$ 7.2 billion 2004

### KPMG



#### KPMG Structured Finance

Acted as financial advisor to the private consortium in developing a new financial model for the Brazilian High Speed Rail (TAV)

> R\$ 33 billion 2011

#### **Urban mobility**





#### KPMG Structured Finance

Acted as financial and tax advisor to a private company in the Expression of interest in the monorail line 18 project in São Paulo

R\$ 3 billion





#### KPMG Structured Finance

Acted as financial advisor to the private company in the Line 4 (Yellow) of the São Paulo Subway

R\$ 1 billion 2008

### KPMG



#### KPMG Structured Finance

Acted as financial advisor to a private company in the preparation of studies for Blue Line of the subway of Curitiba PPP project

R\$ 4.6 billion 2013

### KPMG



#### KPMG Structured Finance

Acted as financial advisor to a private company in an expression of interest in an irrigation project

R\$ 400 million

### KPMG



#### KPMG Structured Finance

Acted as financial advisor to a private company in the structuring of an irrigation PPP of Santa Maria Basin



## Why KPMG - Sector Expertise (cont.)

### Sector Expertise



#### Sanitation and Solid Urban Waste





#### KPMG Structured Finance

Acted as financial advisor to Government of the State of Bahia in the Pilot Project of the Ocean Outfall System of Jaguaribe PPP

> R\$ 160 million 2005- 2006





#### KPMG Structured Finance

Acted as financial advisor to COMPESA
- Companhia Pernambucana de
Saneamento - in the feasibility study of
the Sanitation PPP in the Recife
Metropolitan area and Goiania

R\$ 4.3 billion 2011 - 2012





#### KPMG Structured Finance

Increase of the capacity of water treatment to supply the Metropolitan Region of Belo Horizonte, including projects to enlarge the current system

Estimated value of R\$ 200 million In progress





#### KPMG Structured Finance

Revise and adjust the feasibility studies of the Municipal Sanitation Plan and Institutional model for the sewage system of the city of Guarulhos.

R\$ 1.5 billion





#### KPMG Structured Finance

Acted as financial advisor to SANEAGO
- Saneamento de Goias - in the feasibility study of the concession of the sewage system of five cities

R\$ 1.2 billion





#### KPMG Structured Finance

Acted as financial advisor to a private company in the project developed in the International Airport of São Gonçalo do Amarante- ASGA

R\$ 420 million 2011





#### KPMG Structured Finance

Acted as financial advisor to Eletrobrás in the economic and financial feasibility studies of the Hydropower Plant of Chaglla

> US\$ 1.2 billion 2011





#### KPMG Structured Finance

Acted as financial advisor to a private company in the feasibility studies to the Hydropower Plant of Tumarín

> US\$ 800 million 2009





#### KPMG Structured Finance

Acted as financial advisor to a private company in a wind power auction

> R\$ 200 million 2008





#### KPMG Structured Finance

Acted as financial advisor to a private company in the TGSC Port

Confidential



## Why KPMG - Sector Expertise (cont.)

#### Sector Expertise



#### **Social Infrastructure**





#### KPMG Structured Finance

Acted as financial advisor to a private company in Resocialization Center of Itaquitinga PPP

R\$ 228 million 2010





#### KPMG Structured Finance

Acted as financial advisor to a private company in the feasibility studies and structuring of the PPP Project "Aula

R\$ 2.5 billion

### KPMG



#### KPMG Structured Finance

Study to structuring of the PPP Project of Social housing

R\$ 241.2 million

### KPMG



#### KPMG Structured Finance

Modeling through Expression of Interest procedure of the Apprehended Vehicles Deposit PPP project

R\$ 3.5 billion

#### **Technology**





#### KPMG Structured Finance

Acted as financial advisor to a private consortium in the Datacenter Complex

R\$135 million

#### **Sports, Leisure and Culture**







#### KPMG Structured Finance

Acted as financial advisor to a private consortium in the Fonte Nova Arena

R\$ 784 million 2008 - 2011





#### KPMG Structured Finance

Acted as financial advisor to the Government of the State of São Paulo in the structuring of a PPP to modernize and operate the CVG Complex

> R\$ 100 million 2008





#### KPMG Structured Finance

Acted as financial advisor to a private company in the Arena das Dunas PPP

R\$ 400 million 2010 - 2011

### KPMG



#### KPMG Structured Finance

Acted as financial advisor to a private company in the Pernambuco Arena PPP

> R\$ 452 million 2010

#### Logistics





#### KPMG Structured Finance

Structuring of MIP to PPP Project for SES optimized logistics

> Confidential 2013



## Why KPMG - International Recognition























## Why KPMG - International Recognition (cont.)



















## Why KPMG - Focus on specialized research for the benefit of our clients



The investments in research. grounded in centers of international excellence, create new methodologies, practices and approaches, resulting in added value for KPMG customers

#### Researches and Publications - Value



European M&A



Basis Reporting



Markets







Benchmarking M&A



Retail



European Electricity Outlook







Transforming the Business of Healthcare



Preparing for Regulatory



Natural Gas Outlook



**Outlook for Automotive** 



Wireless and Telecom Industry Survey



European MidMarket



GCC Fraud Survey



The CFO of Tomorrow

Rethinking the

business model



Rethinking the Cost Structures



Survey



Strategic evolution of sourcing



### Why KPMG - Our Global Infrastructure Local Team



Mauricio Endo Partner

mendo@komg.com.br



Charles Schramm Partner

ccschramm@komg.com.br



Fernando Faria Partner

fernandofaria@komg.com.br



Rúben Palminha Senior Manager

rubenpalminha@komg.com.br



Matheus Mouraria Senior Manager

mmouraria@komg.com.br

KPMG is one of the leading companies worlwide in the provision of advisory sevices in several sectors, particulary in infrastructure, and in the sanitation, sports, leisure and culture sectors.

Appart from the fact that KPMG has a deep knowledge of the market that surrounds it, the Global Infrastructure Team provides an additional advantage, in that it complements the experience in the follow up and development of several relevant projects at the national level (what allows it to have a deep knowledge of the Brazilian reality, national market and its players) with the knowledge acquired from internacional experiences.

As a recognition of our experience, we have been awarded several prizes in various sectors of activity.

"KPMG is one of the entities that have more knowledge about the infrastructure market in Brazil. We are involved in major infrastructure projects and funding structurings that are currenty happening in Brazil and in the world.

An unparalled experience in independent advisory for the public and private sectors that was built over the course of many years and in several countries."

> Maurício Endo Partner KPMG





### Mauricio Endo

Partner
Structured Finance
mendo@kpmg.com.br

#### **Position**

- Partner Structured Finance KPMG in São Paulo
- Head of Global Infrastructure in South America and in Brazil
- Head of Government & Infrastructure in Latin America and in Brazil

#### **Education and qualifications**

- MBA in Finance University of California, Los Angeles (UCLA), USA, 1999
- Bachelor's degree in Electronic Engineering from ITA (Instituto Tecnológico de Aeronáutica), São José dos Campos (SP), 1989

#### **Description**

Mauricio is a Partner at KPMG in Brazil, with experience in PPP/Concession, Project Finance, Mergers&Acqusitions, Valuations and Financial Modeling. He joined KPMG in 2002, where he has been leading financial advisory in infrastructure, coordinating various PPP, Concession and Project Finance structuring. Previously, Mauricio worked at investment banks with Project Finance and M&A advisories.

#### Selected engagements

Main Project Finance, PPP and M&A advisories led by Mauricio:

 New PPP Framework for Federal Highways - Led financial advisory to the Brazilian Ministry of Transportation on the development of a PPP framework (business model, PPP framework, financial model and PPP contract) for a US\$ 4.5 billion federal highways investment program, the first PPP modeling in Brazil;



### Why KPMG - Our Team Mauricio Endo

- MG-050 PPP Led financial advisory to the State of Minas Gerais on a PPP feasibility study (diagnosis, risk analysis, financial modeling, business case, value-for-money analysis and PPP contract) to expand and operate an existing 360km state highway, MG-050, the first PPP signed in the Road Sector in Brazil, with investments of US\$ 400 million;
- Brazilian High Speed Rail Project (TAV) Concession Led financial advisory for private consortiums in the development of financial models and analysis of tender documentations;
- Port Terminal XXXIX Led financial analysis and valuation of a port terminal in the Port of Santos;
- Port Terminal TGSC (Terminal de Grãos de Santa Catarina) Led financial analysis and valuation of a port terminal in the State of Santa Catarina;
- São Gonçalo do Amarantes Airport Concession Led financial advisory for a private consortium in the analysis of tender documentations, financial modeling and bidding;
- Guarulhos, Brasilia and Viracopos Airport Concession Led financial advisory for a private consortium in the analysis of tender documentations, financial modeling and bidding;
- · São Paulo Line 4 Subway PPP Led financial analysis and valuation of PPP contract for a private investor;
- Transolimpica Expressway Concession Led financial advisory to a private investor on a Concession feasibility study (diagnosis, risk analysis, financial modeling, business case, value-for-money analysis and concession contract), submitted as an Expression of Interest (PMI) to the Municipality of Rio de Janeiro, for a US\$ 1 billion 20km four lane greenfield urban expressway to connect two sites of the 2016 Summer Olympics Games;
- Goiás Highways PPP- Led financial advisory to a private group on a PPP feasibility study, submitted as an
  Expression of Interest (PMI) to the State of Goiás, including the duplication and operation of 4 state highways, with
  total investments estimated at US\$ 800 million;
- São Paulo State 12 Road Concessions Contract Rebalancing Led financial advisory for the development a methodology for economic and financial rebalancing of 12 existing state road concession contracts;



### Mauricio Endo

- Curitiba Subway PPP Led financial advisory to a private investor on a PPP feasibility study, submitted as an
  Expression of Interest (PMI) to the Municipality of Curitba, for the construction and operations of a US\$ 2 billion
  14km greenfield subway in the City of Curitiba;
- Fonte Nova Arena PPP Led financial PPP feasibility study to the State of Bahia, for the construction and operation of a US\$ 300 million multipurpose arena to host the 2014 World Cup games in Salvador Host City;
- Cidade da Copa Arena PPP Led financial advisory to a private investor on a PPP feasibility study, submitted as an Expression of Interest (PMI) to the State of Pernambuco, and subsequent bidding for the construction and operation of a US\$ 250 million greefield multipurpose arena to host the 2014 World Cup games in Recife Host City;
- Dunas Arena PPP Led financial advisory to a private investor on a PPP feasibility study, submitted as an Expression of Interest (PMI) to the State of Rio Grande do Norte, and subsequent bidding for the construction and operation of a US\$ 200 million greefield multipurpose arena to host the 2014 World Cup games in Natal Host City;
- Recife Metropolitan Region Sewage Treatment PPP Led financial advisory to the State of Pernambuco on structuring and tendering a US\$ 2.1 billion sewage treatment system covering 15 municipalities and more than 4 million people in the Metropolitan Region of Recife;
- Itaquitinga Prison PPP Led financial advisory to a private investor on a PPP feasibility study, submitted as an Expression of Interest (PMI) to the State of Pernambuco, and subsequent bidding and project finance with BNB funding to construct and operate a US\$ 150 million greenfield 2,135 inmates capacity prison unit;
- Jaguaribe Sewage Treatment PPP Led financial advisory to the State of Bahia State on structuring and tendering a PPP for a US\$ 120 million sewage treatment system in the City of Salvador;



### Mauricio Endo

- CVG Sport Complex PPP Led financial advisory to the State of São Paulo in structuring a PPP to improve, expand and operate the largest existing public sport center of São Paulo City, with investments of US\$ 60 million.
- ATL Mobile Concession Led financial advisory to ATL on a project finance with BNDES funding for a US\$ 1.9 billion greenfield Band B mobile telecommunications project;
- Americal Mobile Concession Led financial advisory to Americal on a project finance with BNDES funding for a US\$ 530 million greenfield Band B mobile telecommunications project.
- NBT Mobile Concession Led financial advisory to NBT on a project finance with BNDES funding for a US\$ 240 million greenfield Band B mobile telecommunications project.

#### **Sector expertise**

• Transport, water & sewage, power, leisure and sports, telecommunications, and healthcare.





### Charles Schramm

### Partner Structured Finance ccschramm@kpmq.com.br

#### **Position**

Partner - Structured Finance - KPMG in São Paulo

#### **Education And Qualifications**

- Studied Local Economic Development at London School of Economics, London, England, 2004
- Bachelor's degree in Business Administration from PUC/SP, 2001

#### Description

Charles has vast experience in project finance, fundraising and analysis of economic and financial feasibility of infrastructure projects. He has been working at KPMG since 2011 in the advisory of structured projects, PPP projects, concessions and fund raising.

From 2006 to 2011, Charles coordinated the PPP Unit of the State of Rio Grande do Sul and the modeling of five PPP projects through Procedure for Expression of Interest (EOI). He worked in the structuring of concession projects in the government, in the areas of foreign operations and project finance at Banco do Brasil S.A., and as a consultant for new businesses.

#### **Selected Engagements**

#### Main Project Finance and PPP projects led by Charles:

 Privately-held Company – Economic and financial advisory services in the preparation of the Feasibility Studies for the Expression of Interest Procedure (EOI) in the duplication, improvement, maintenance and operation of about 520km of highway segments in the state of Goiás.



### Charles Schramm

- Companhia Pernambucana de Saneamento (COMPESA) Financial advisory services in the "PPP Project of the Sewage System of the Metropolitan Region of Recife and of the Municipality of Goiana", for universalization of the sewage collection and treatment in 15 municipalities from the state of Pernambuco.
- Saneamento de Goias S.A. (SANEAGO) Financial advisory services in the "Subconcession of sewage treatment in 4 municipalities from the state of Goiás".
- State Government of Rio Grande do Sul / SEPLAG (Secretariat of Planning and Management) structuring of the PPP State Program, focused on five different areas (security, infrastructure, sanitation, irrigation and administrative centers): (i) EOI in the PPP of the Road System ERS-010 Rodovia do Progresso; (ii) EOI in the PPP of the Prison Facility in the Metropolitan Region of Porto Alegre, in Canoas; (iii) EOI in the PPP of the Irrigation of Santa Maria River Basin; (iv) EOI in the PPP of the Renovation of the Administrative Center of the State of Rio Grande do Sul Fernando Ferrari; and (v) EOI in the PPP of the sanitary sewage treatment at Gravataí River Basin.
- Private Company: preparation of a business plan (market study, risk matrix and economic and financial feasibility analysis) for fund raising and venture capital investment.
- Serving as a consultant, he participated in the feasibility analysis of new businesses and companies acquisitions.
- At Banco do Brasil, he worked in international financing processes at large-sized Brazilian companies in several sectors.
- Sector expertise
- Infrastructure, sewage & water, transportation, education, government affairs and greenfield ventures.





### Fernando Faria

### Partner Structured Finance fernandofaria@kpmg.com.br

#### **Position**

Partner

#### **Education and qualifications**

• Graduate in Economics at the "Universidade Católica Portuguesa"

#### **Description**

Fernando joined KPMG 2000. Previously he worked in the project finance departments of two major Portuguese investment banks. For more than fifteen years Fernando led the advisory work for several infrastructure deals in a variety of sectors, namely: transport (roads, ports, airports and railways), water, energy, petrochemicals, and social infrastructure.

At KPMG, Fernando lead the Infrastructure teams in both Portugal and Angola, he was nominated member of the Executive Committee of KPMG's Africa Infrastructure team and he had lead assignments throughout the world, namely in Latin, Africa, US, India and continental Europe.

Fernando is a regular speaker in infrastructure related conferences in Brazil, Africa and Portugal and he is an invited lecturer of the Portuguese Catholic University.

Since October 2014, Fernando is based in Rio de Janeiro office.

#### Selected engagements

• Public Company – Advising the state of Minas Gerais (Brazil) on the development of the MG-050 road PPP;



### Fernando Faria

- Private Company Advisory in the preparation of the feasibility studies of an Expression of Interest for the construction, maintenance and operation of a PPP project for the Curitiba Metro.
- Private Company Advisory on its strategy related to the upcoming urban mobility projects in Brazil;
- Public Company Advising the Portuguese Roads Authority (Estradas de Portugal) on several PPP projects, including renegotiations and introducing tolls on shadow and availability type deals;
- Private Company Advisory to a number of private sector players on the implementation of limited recourse project finance in Brazil
- Private Company Advisory to a major Portuguese player on their successful bids for several water and sewage concessions in Portugal and Brazil;
- Private Company Advisory on several waste collection concession projects in Portugal;
- Public Company Advisory to RAVE, the Portuguese state owned company, on the development of the
  Portuguese High Speed Rail network, including defining the business and procurement model and advising on
  the tendering of the respective PPP projects;
- Private Company Advising a bidder on the privatisation of ANA, the Portuguese airport operator;
- Public Company Advising PRASA (the Passenger Rail Authority of South Africa) on the procurement of new trains following their train renewal programme.

#### **Sector expertise**

• Transport (roads, railways and urban mobility), Power & Energy and Water &Sewage.





### Rúben Palminha

Senior Manager Structured Finance rubenpalminha@kpmg.com.br

#### **Position**

Senior Manager

#### **Education and qualifications**

- · Postgraduate degree in Finance, with specialization in Corporate Finance INDEG-IUL, (Lisbon, Portugal)
- Specialization in Finance INDEG-IUL (Lisbon, Portugal)
- Graduate in Finance ISCTE-IUL (Lisbon, Portugal)

#### Description

Rúben joined KPMG in 2006. Since then, Rúben has been strongly involved on a number of PPP/PFI, Project Finance deals M&A and Valuations, with special focus on the transport sector (roads, rail and urban mobility).

Rúben experience covers project structuring, including devising appropriate risk allocations and payment mechanisms; risk assessment & developing PSCs; Business Case development; procurement analysis; and structuring and arranging debt finance.

Since December 2014, Rúben is based in Rio de Janeiro office.

#### **Selected engagements**

- Private Company Advisory in the preparation of the feasibility studies of an Expression of Interest for the construction, maintenance and operation of a PPP project for the Curitiba Metro.
- Private Company Advisory on its strategy related to the upcoming urban mobility projects in Brazil;



### Rúben Palminha

- Private Company Advising a bidder in the acquisition of a stake in a major gas distribution company (downstream) in Brazil;
- Public Company Advising the Portuguese Roads Authority (Estradas de Portugal) on several PPP projects, including renegotiations and introducing tolls on shadow and availability type deals;
- Private Company Advising on the re-negotiation process of several Port Concessions (Portugal).
- Private Company Advisory to a major Portuguese player on their successful bids for several water and sewage concessions in Portugal and Brazil;
- Public Company Advising PRASA (the Passenger Rail Authority of South Africa) on the procurement of new trains following their train renewal programme.
- Private Company Advisory on several waste collection concession projects in Portugal;
- Private Company Advising a bidder on the privatisation of ANA, the Portuguese airport operator;
- Public Company Advisory to a Portuguese Municipality in the economic and financial valuation of a Public Lighting Project.
- Private Company Advising a bidder on the privatisation of EGF (the Portuguese state own waste treatment company).
- Private Company Advising an Angolan company on raising funds for a road project in that country;
- Private Company Advising on the sell of the participation of the minority shareholders in a major water & sewage player in Portugal.

#### **Sector expertise**

Transport (roads, railways and urban mobility), Power & Energy and Water &Sewage.





### Matheus Mouraria

Senior Manager Structured Finance mmouraria@kpmg.com.br

#### **Position**

Senior Manager

#### **Education and qualifications**

Bachelor in Economics Sciences - Fundação Getúlio Vargas

#### Description

Has joined KPMG in 2012, where works as manager in global infrastructure, PPP and concession projects, and mergers and acquisitions (M&A). Has experience inn financial modeling and strategic projects in the infrastructure area, feasibility studies and M&A.

Previously to KPMG, Matheus has worked in consulting companies in the areas of M&A, restructuring and strategy (Valormax, Accepta and Terra Futuros) and bank (ABN AMRO Real).

#### Selected engagements

- Port feasibility studies Advisory to private company in a greenfield port in Brazil.
- Brasilia Airport feasibility studies and valuation.
- Curitiba Subway PPP Financial advisory to a private investor on a PPP feasibility study, submitted as an Expression of Interest (PMI) to the Municipality of Curitba, for the construction and operations of a US\$ 2 billion 14km greenfield subway in the City of Curitiba;
- Street Lighing PPP feasibility studies for PPPs in municipalities in the State of São Paulo, Pará and Roraima.
- Feasibility Studies for logistics hubs in the State of São Paulo and Northeast State.



### Matheus Mouraria

- Education PPP Financial advisory to a private investor on a PPP feasibility study, business modeling, risk analysis and institutional model development.
- Housing PPP Financial advisory to a private investor on a PPP feasibility study in the state of São Paulo.
- Transport Sector Strategic Advisory to private company of urban mobility market.
- Strategic urban mobility advisory to public company in Rio de Janeiro.
- M&A Projects in the IT sector, in which has participated in the business and financial modeling.
- Financial modeling for private company in M&A deal in logistics sector.
- Financial modeling for private company in M&A deal in water and sewage sector.
- Reestructuring of human resources company, lead player in Brazil.
- Reestructuring of companies in the education business in São Paulo.
- Strategic advisory in the sectors of transportation, food, e-commerce and retail.

#### **Sector expertise**

Infrastructure, transportation, urban mobility, ports and social infrastructure.







# Thank you

#### kpmg.com/BR



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