

CASA CIVIL
PROGRAMA DE
PARCERIAS DE
INVESTIMENTOS **PPI**

BRAZILIAN INVESTMENT PARTNERHIPS PROGRAM

September, 2019



Scan the QR code to access
the projects portfolio



Brazil in the world

9th largest economy:
GDP **US\$ 1.9 trillion**

5th largest
land area:
8.358.140km²

5th largest
population:
**210.1 million
people**

8th largest consumer market:
US\$ 1.2 trillion

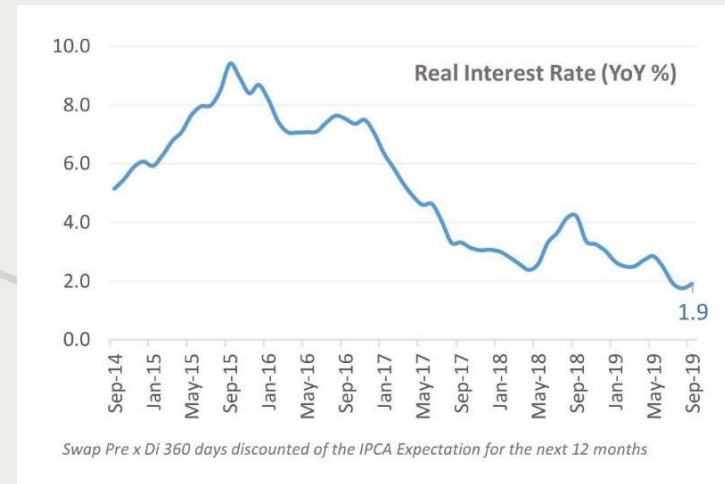
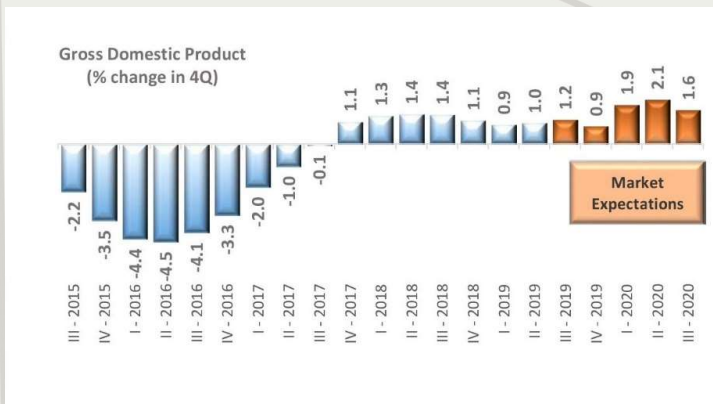
Household consumption
expenditure equals
63% of GDP

4th largest FDI destination
in 2018: **US\$ 88.3 billion**
(40% of Latin America's
total FDI inflow)

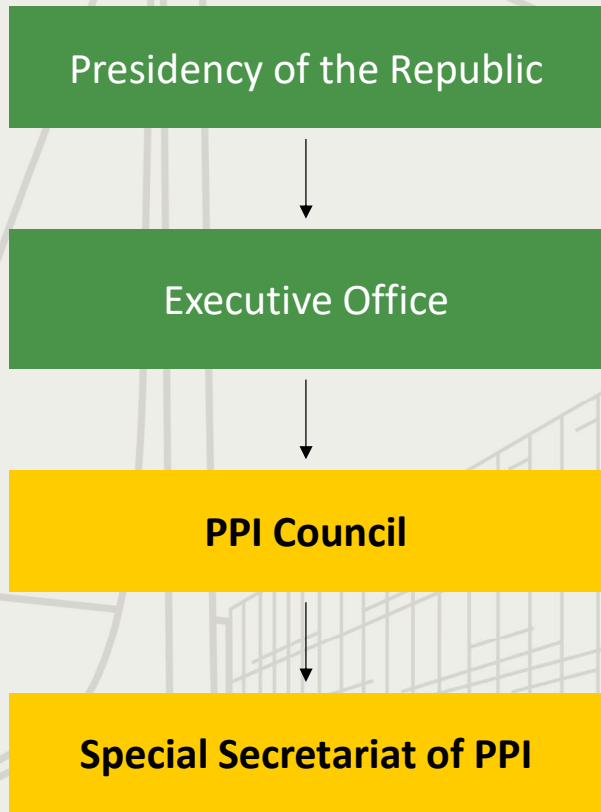
One of the main global
producers and exporters of
**iron ore, soy bean, animal
protein, coffee, machinery
and aircraft**

Brazil's Economic Recovery

Ministry of Economy/Brazilian Central Bank data



PPI Council



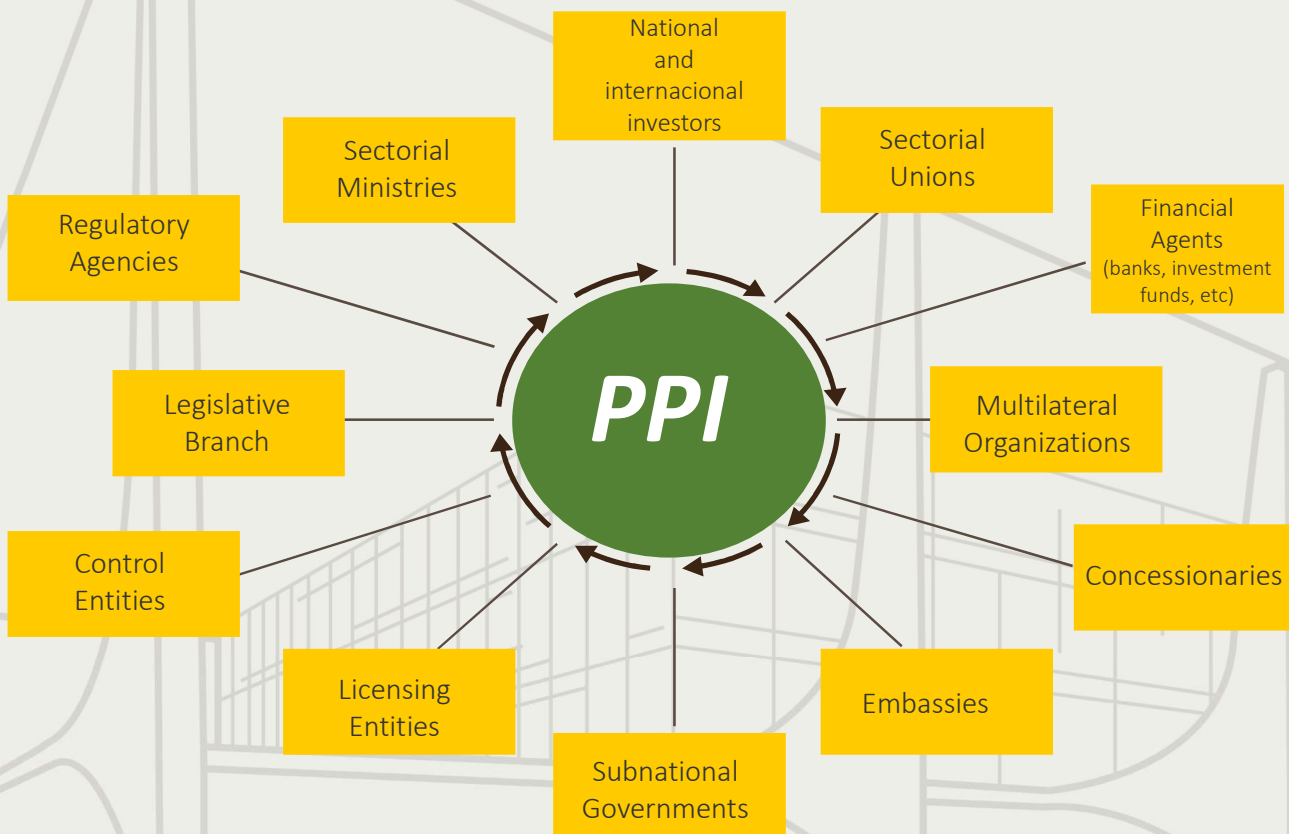
- President and Ministers:
 - Executive Office
 - Economy
 - Infrastructure
 - Mines and Energy
 - Environment
 - Secretariat of Government

- Federal Banks:
 - BNDES
 - Caixa Econômica Federal
 - Banco do Brasil

- The PPI Special Secretary serves as the Executive Secretary of the CPPI



PPI Works as a hub



Adds on efficiency and value to the process

- Governance, coordination, monitoring and oversight
- Transparency, dialogue, credibility and predictability
- Well-designed projects
- Technical and legal framework enhancement

PPI in figures

Accomplished auctions/bids and projects

Qualified
projects

272

Accomplished
auctions/bids
and projects

152

Investments

R\$ 262.5 billion
(USD 64.1 billion)

Concessions /Bonuses

R\$ 52.3 billion
(USD 12.8 billion)

40 months of work

PPI in the world

Out of the 152 accomplished projects, 62 had foreign winning companies or in consortium with Brazilian companies.

- US\$ 64.1 billion (R\$ 262.5 billion) in expected investments in accomplished projects.
- US\$ 47.6 billion (R\$ 194.9 bilhões) – 74.25% - represent the amount of foreign capital inflow alone.

*Brazil
China
France
Spain*

*Italy
Norway
Qatar
Switzerland*

*Portugal
Australia
India
Germany*

*USA
United Kingdom
Bermudas
Colombia
Canada*



PPI Portfolio

US\$ 317.5 billion in investments + 10th meeting assets/pricing to be determined in the assessments

<p>Railways – 11</p>  <p>5 concession renewals 2 new concessions 4 investments in strategic railways</p>	<p>Ports – 20</p>  <p>2 Privatizations 17 Port Terminals 14 leasings 2 investment authorizations 1 Assessment (Santos) Waterway 1 Licensing</p>	<p>Energy – 21</p>  <p>3 Generation 12 Transmission lots 1 Privatization - Eletrobras 5 Licensings</p>	<p>Oil & Gas – 4</p>  <p>Petrobras' Transfer of Rights Round 5 of Residual Blocks Round 6 of PSA Round 16 of Concession Agreement</p>	<p>Policies</p> <ul style="list-style-type: none"> • “Sea road” – Cabotage • TRIIP • PPP daycares • PPP prisons + correctional facilities • Universalizing basic sanitation + solid waste • PPP street lightening • The projects factory
<p>Airports – 22</p>  <p>22 airports in 3 clusters</p>	<p>Defense and Security (PPP's) - 2</p> <p>1 Air Force Communications 1 Police Communications</p>	<p>Mining – 5</p>  <p>5 Concessions for Exploiting Mining Rights</p>	<p>Supply – 2</p>  <p>2 Privatizations CEASAMINAS and CEAGESP</p>	<p>Communications – 3</p> <p>3 Assessments for Privatization (Telebras, ECT and Ceitec)</p>
<p>Highways – 18</p>  <p>10 concessions 2 Feasibility assessments (11,350 km) 6 Licensings</p>	<p>Economy – 6</p> <p>3 Privatizations (Casa da Moeda, ABGF, EMGEA) 1 Concession (Lotex) 2 Assessments (Serpro and Dataprev)</p> 	<p>Regional Development – 3</p> <p>2 privatizations (CBTU and Trensurb) PISF - operation</p>	<p>National Parks – 3</p> <p>3 concessions (Lençóis Maranhenses, Jericoacara and Iguazu Waterfalls)</p>	<p>120+ 9 <i>projects Policies</i></p>

In 2019, 28 auctions have been carried out

Investment
 Expectation

US\$ 2.24 bi

Revenues/Bonuses

US\$ 1.44 bi

Ports



13 auctions + 1 assessment

11 liquid bulk terminals

- 3 in Cabedelo/PB
- 1 in Vitória/ES

Auction on March 22

- 5 in Belém/PA
- 1 in Vila do Conde/PA

Auction on April 5

- 1 in Santos/SP

Auction on August 13

1 Celulose Terminal in
 Paranaguá/PR

Auction on August 13

1 Solid Bulk Terminal

Auction on August 13

1 Assessment – Libra

Auction on August 21

Investments: US\$ 256 million
 Concession fee: US\$ 199 million

Airports



12 auctions

12 airports auctioned in 3
 clusters:

- Northeast:
 - Recife/PE; João Pessoa and Campina Grande/PB; Maceió/AL; Aracaju/SE; and Juazeiro do Norte/CE
- Midwest:
 - All in MT: Várzea Grande (Cuiabá), Alta Floresta, Barra do Garças, Rondonópolis and Sinop.
- Southeast:
 - Vitória/ES and Macaé/ RJ

Investments: US\$ 860 million
 Concession fee: US\$ 580 million

Auction on March 15

Contract signed on September 6

Energy



1 auction

A-4 Power generation

- All in renewable energy
- Photovoltaic energy offered at the lower price in the world

Investments: US\$ 462 million
 Concession fee: lower energy tariff

Auction on June 28

Railway



1 auction

North-South Railway (FNS)

Investments: US\$ 661.3 million
 Concession fee: US\$ 661.3 million

Auction on March 28

Contract signed on July 31

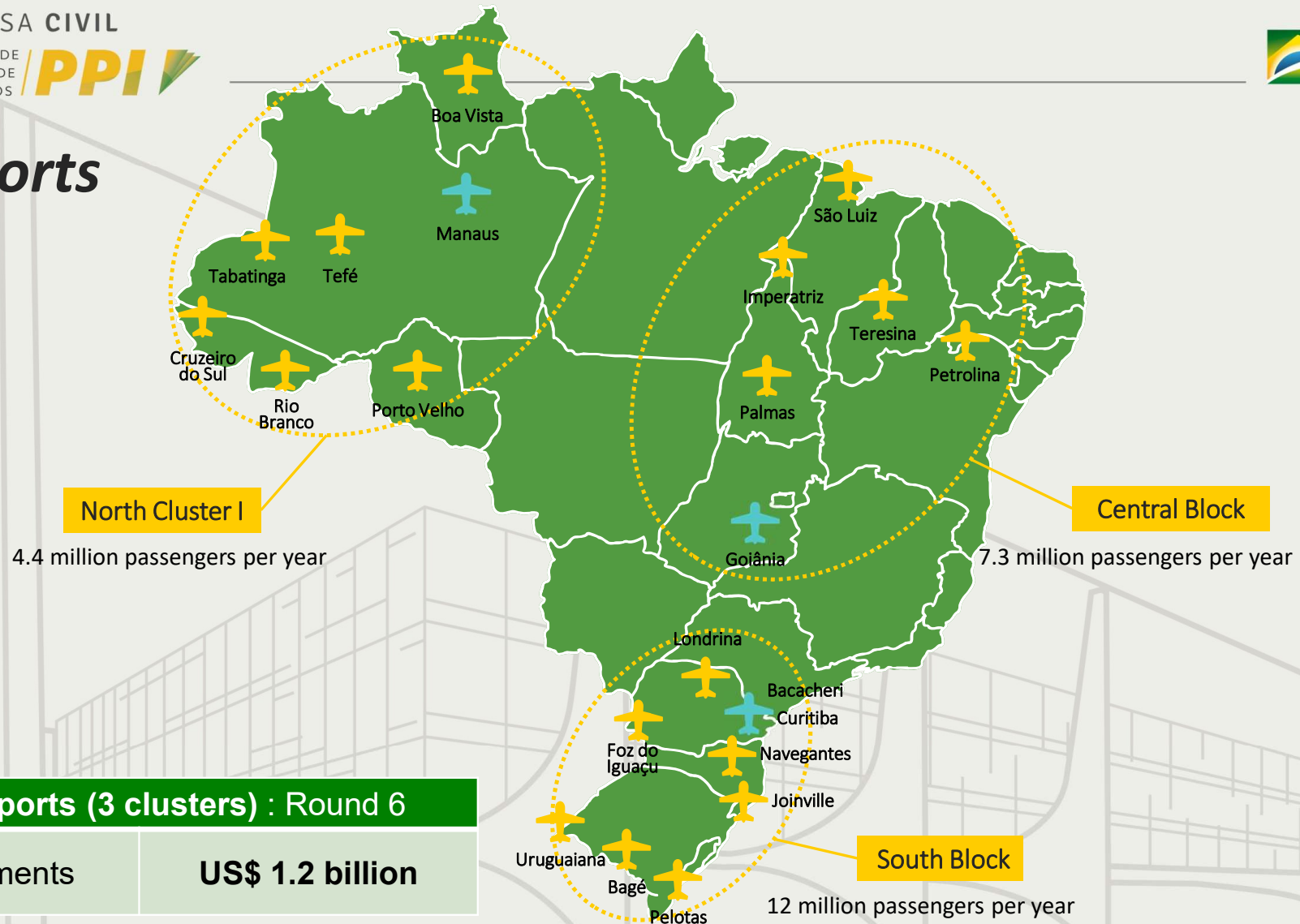
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PPI Portfolio



Airports



22 Airports (3 clusters) : Round 6

Investments

US\$ 1.2 billion

Railways

*New
 concessions*

Ferrogrão
 Sinop/MT to
 Miritituba/PA
 933 km

FIOL
 Ilhéus/BA to
 Caetité/BA
 537 km

FICO
 Mara Rosa/GO
 to Água Boa/MT
 383 km

EFC
 978 km

FCA
 7223 km

EFVM
 895 km

Rio-Vitória
 Nova Iguaçu/RJ to
 Vila Velha/ES
 577 km

MRS
 1686 km

**Rumo Malha
 Paulista**
 1989 km

Railways Portfolio

Investments US\$ 15.17 billion

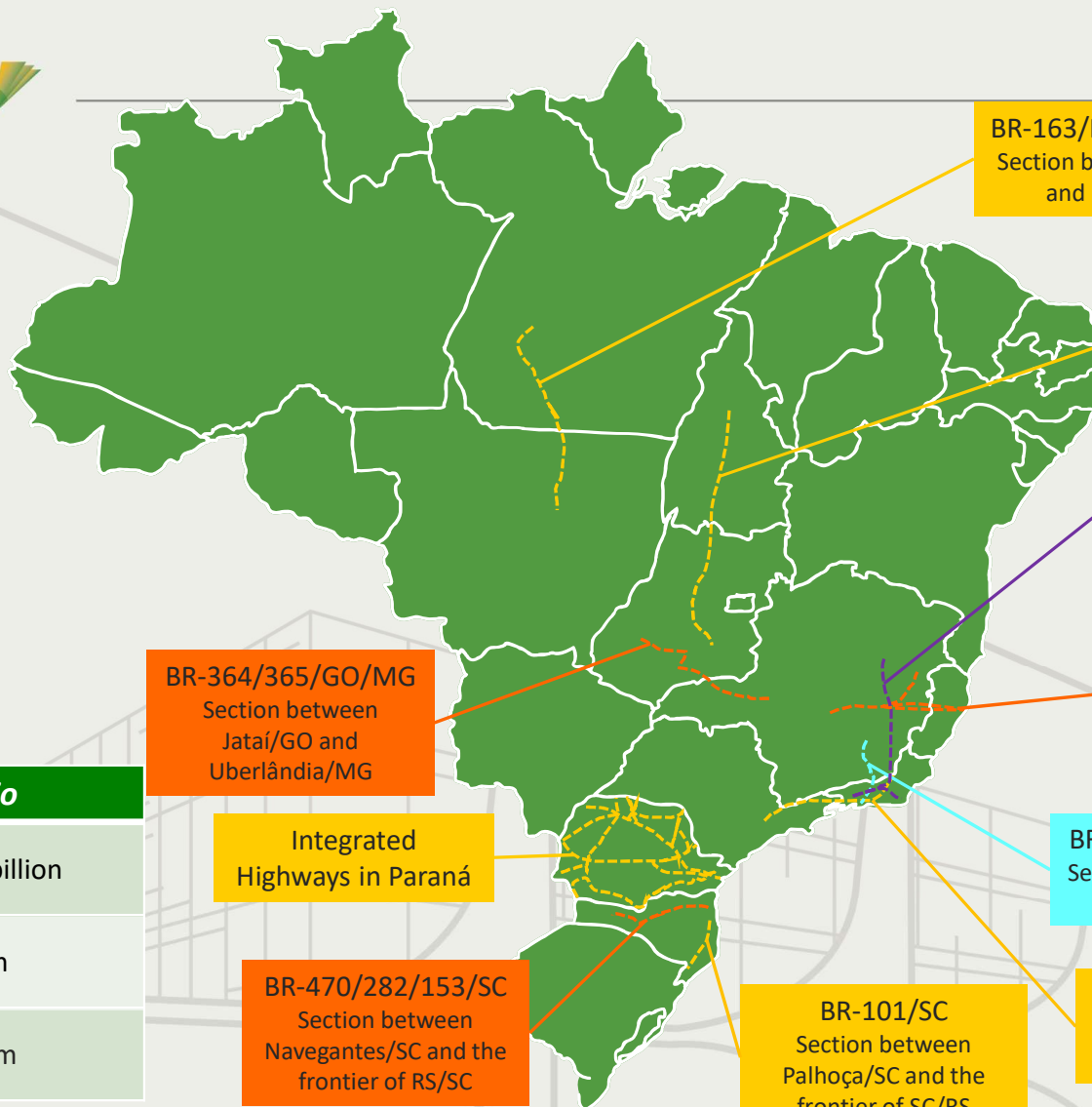
- new – US\$ 3.9 billion
- renewal – US\$ 11.27 billion

Total Length 15,107 Km:

- new – 1,470 km
- renewal – 13,637 km

Highways

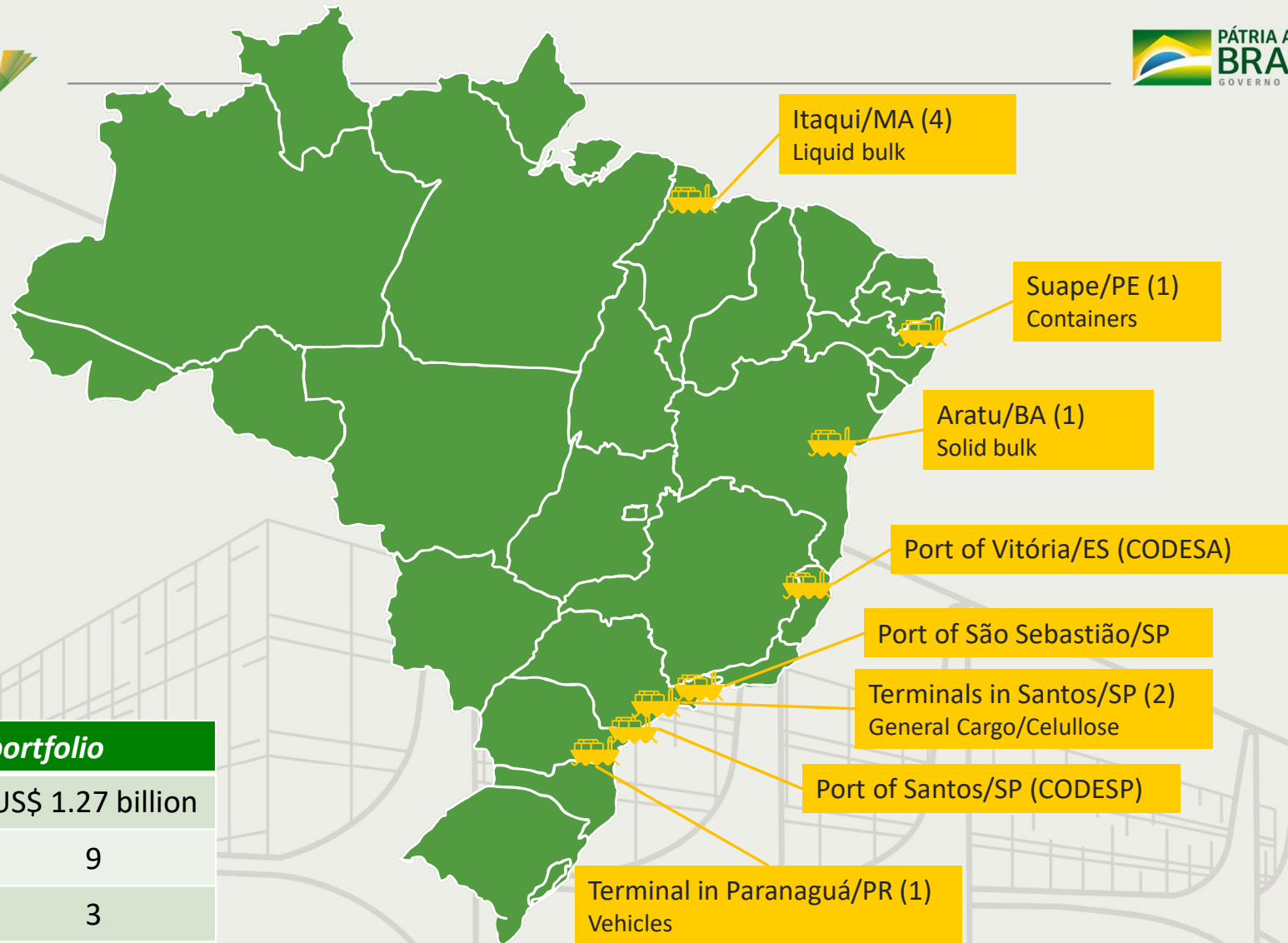
16,500 km



Highways Portfolio

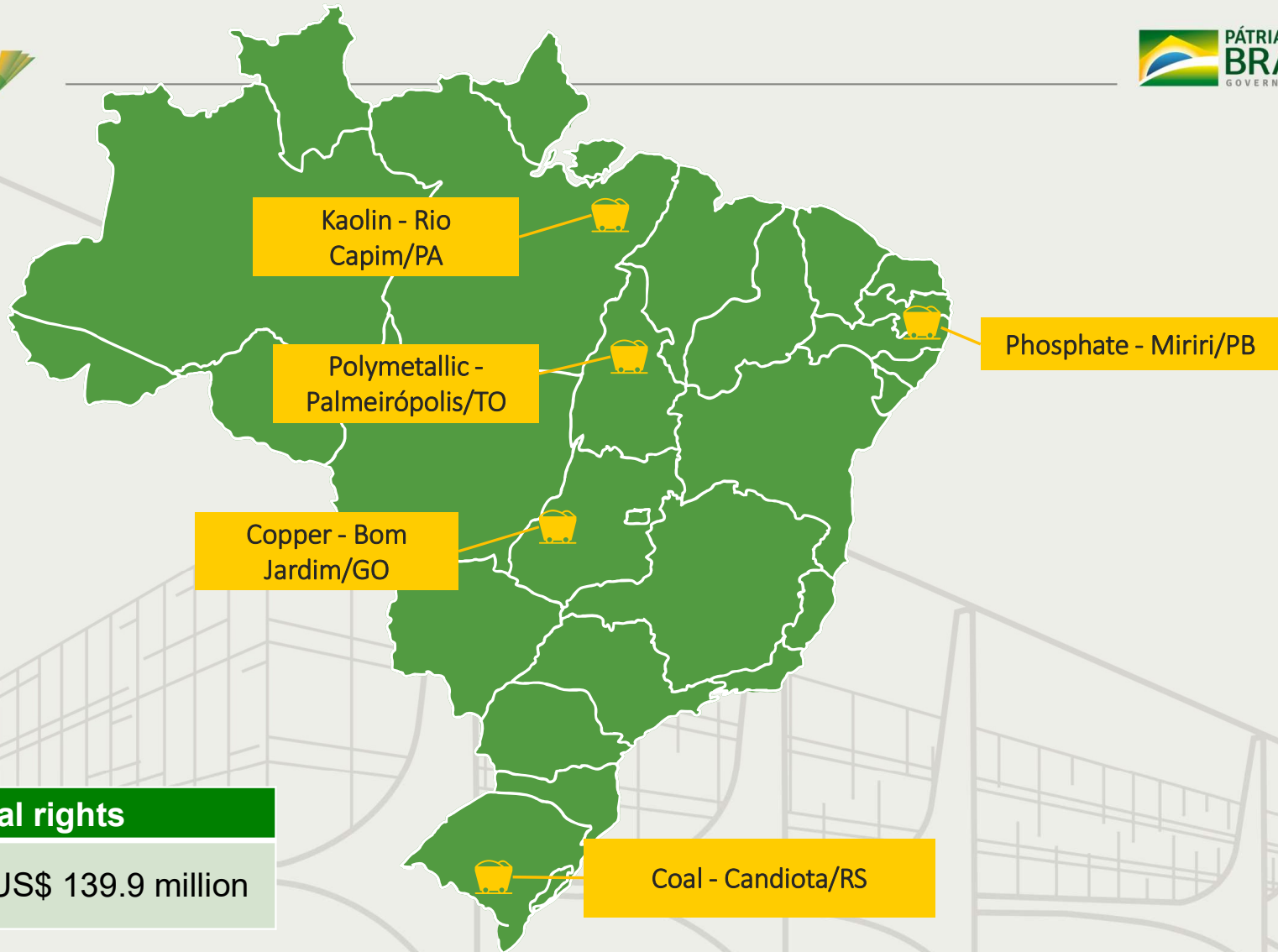
Investment	US\$ 34 billion
Concessions	5,222 km
Assessments	11,352km

Ports

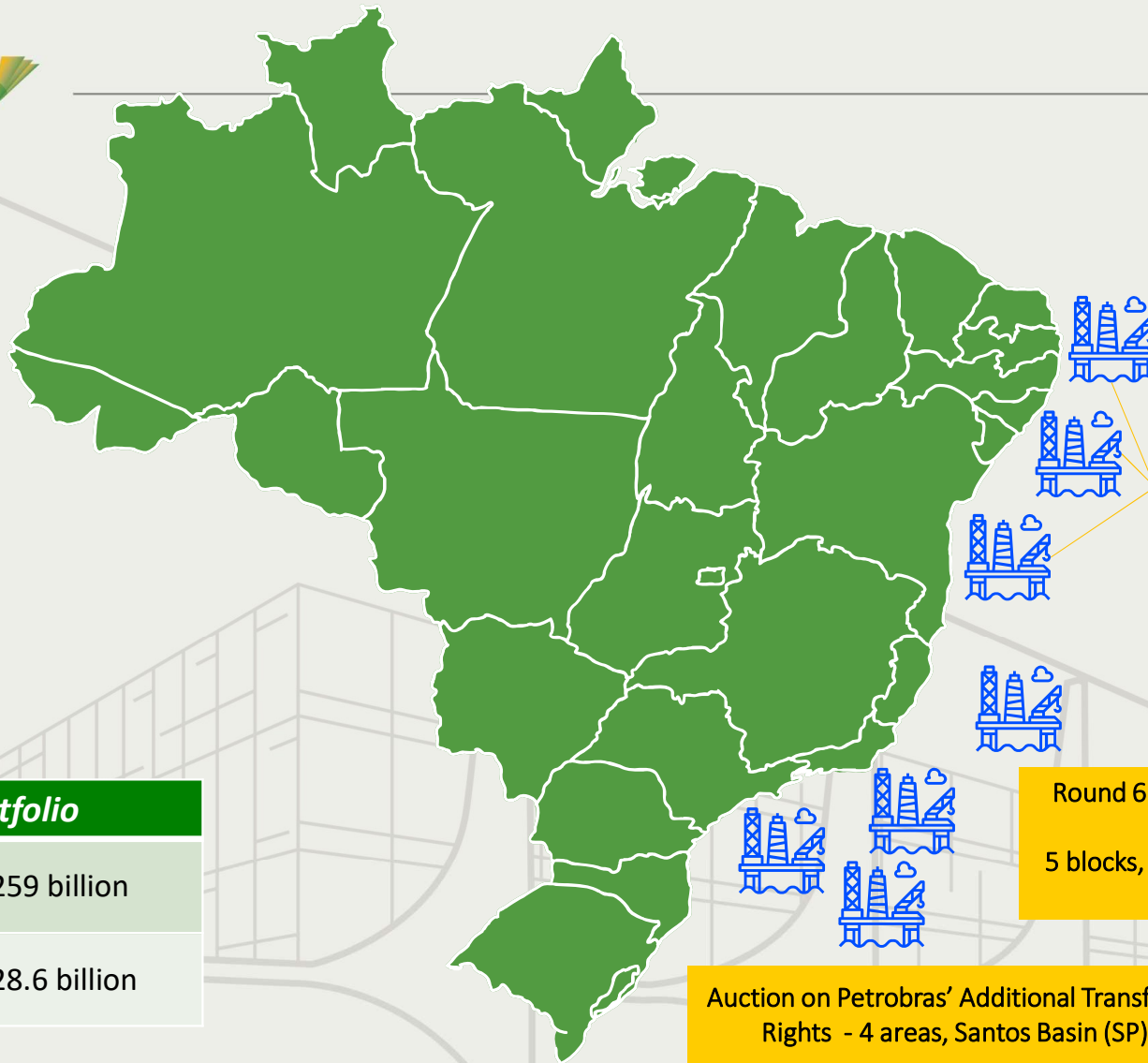


Ongoing Ports portfolio	
Investments	US\$ 1.27 billion
Port leasings	9
Port privatizations	3

Mining



Oil & Gas



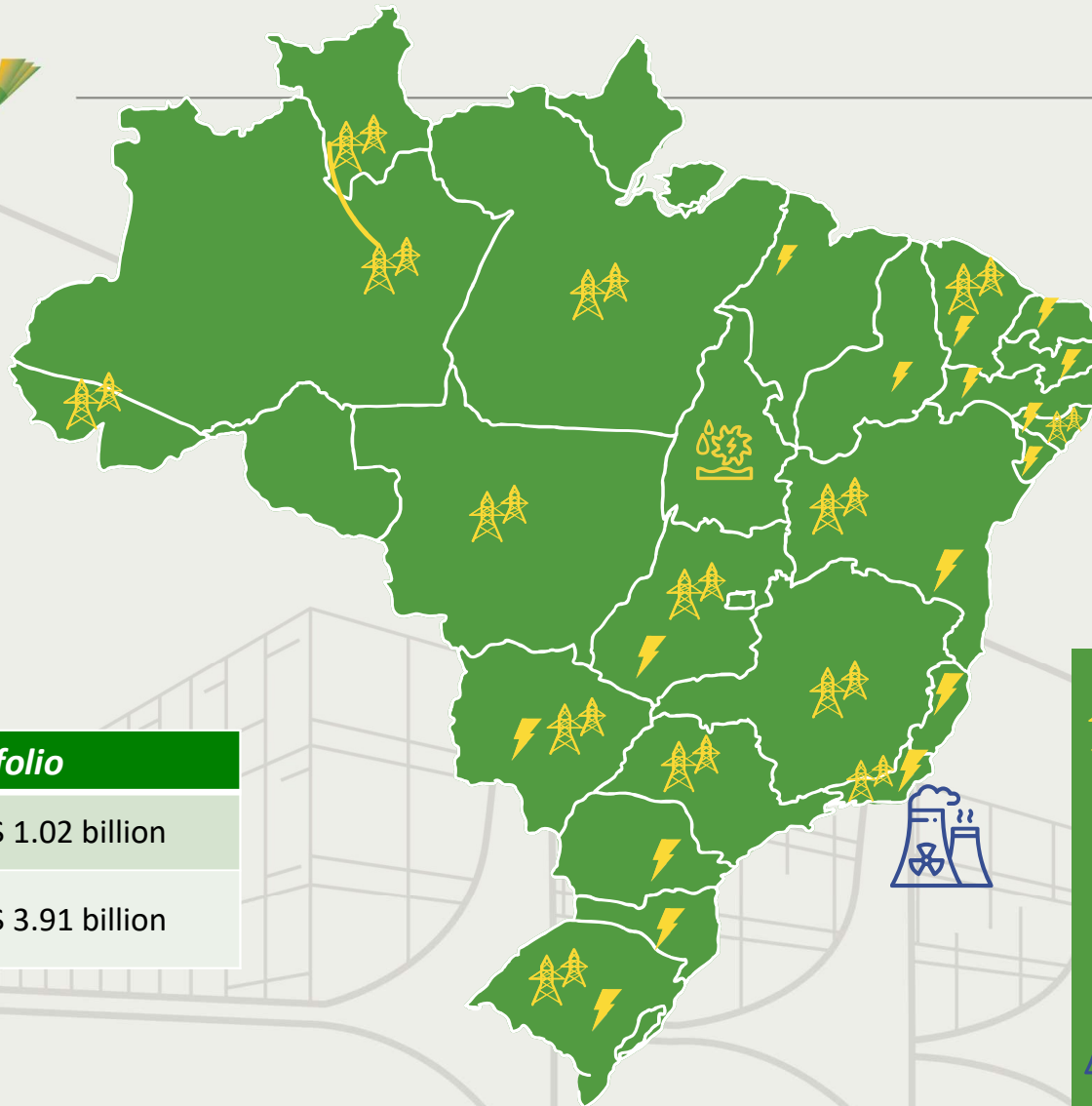
Round 16 - Concession Agreement
 36 blocks (SP, RJ, BA, SE, PE)

Round 6 - PSA (production-sharing agreement)
 5 blocks, Santos and Campos Basins (SP/RJ)

Auction on Petrobras' Additional Transfer of Rights - 4 areas, Santos Basin (SP)





Oil & Gas portfolio	
Investments (35 years)	US\$ 259 billion
Signing Bonus	US\$ 28.6 billion

Energy

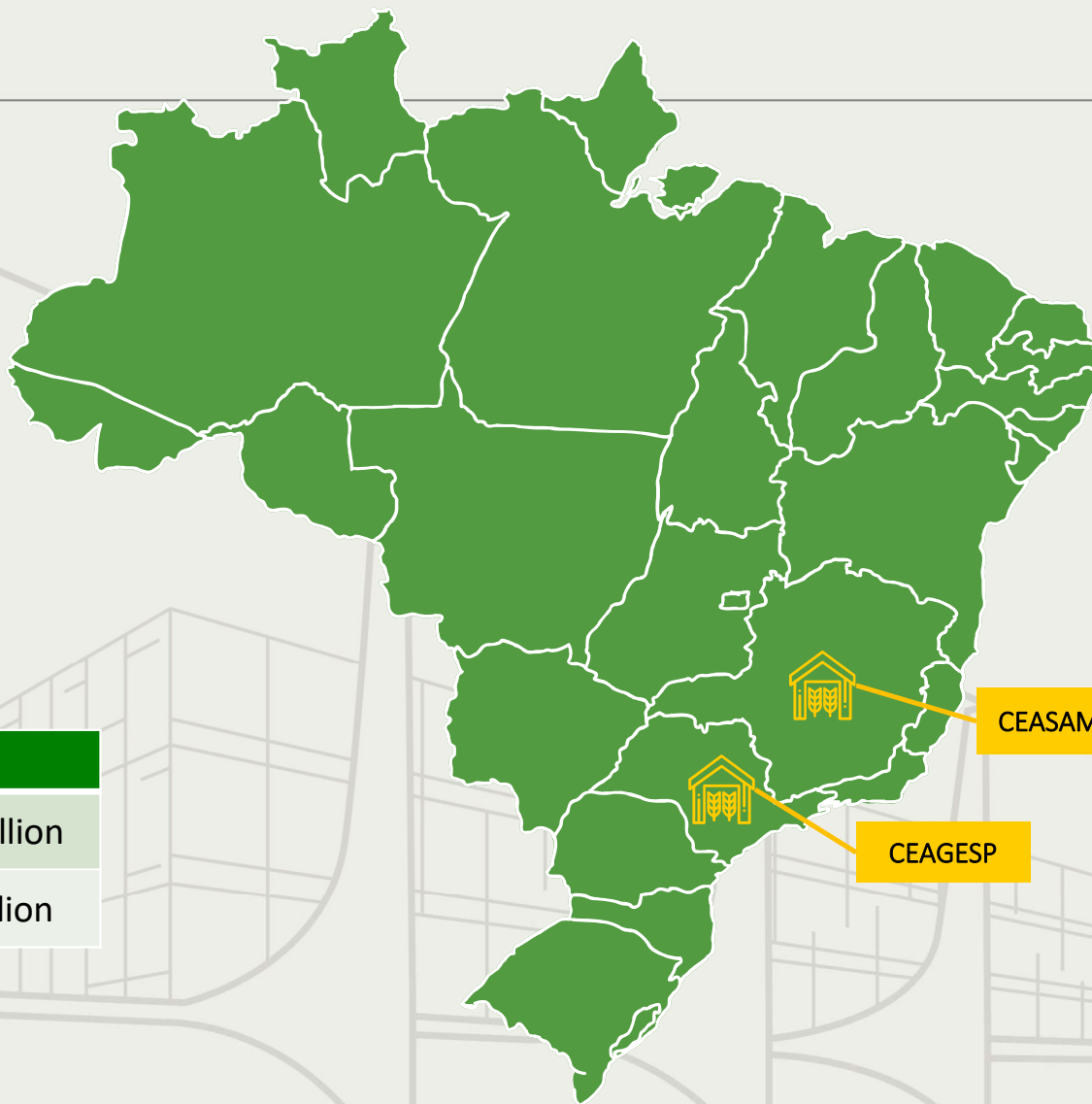


Energy portfolio

Transmission	US\$ 1.02 billion
Partnership to accomplish Angra 3	US\$ 3.91 billion

-  Auction on 12 Transmission Lines
-  Auction on A-6 Energy (generation)
-  Small-scale hydropower plant Agro Trafo
-  Angra 3

Supply



Supply portfolio

CEAGESP	US\$ 42.1 million
CEASAMINAS	US\$ 8.5 million

SoE Privatizations



Assessments



National Parks

National Park of
Lençóis Maranhenses
(MA)



National Park of
Jericoacoara (CE)



National Park of
Iguazu Waterfalls (PR)



Policies

- Cabotage (coastline sailing) Policy
- TRIIP – Policy for fostering the interstate and international passengers mass land transportation system



Development Policies

- Development policies for subnational levels/ “The Projects Factory”
- Support for structuring projects on universalizing basic sanitation
- Support for structuring projects on energy recovery for solid waste treatment



Support for Subnational levels PPPs *Assessments and Pilot Projects*

- Support for structuring projects on early childhood education (public daycares) – “Proinfância” Program
- Support for structuring projects on state-level prisons
- Support for structuring projects on correctional facilities
- Support for structuring projects on street lightening for combating criminality
- Support for structuring projects on energy recovery for solid waste treatment
- Support for structuring projects on universalizing basic sanitation



Environmental Licensing

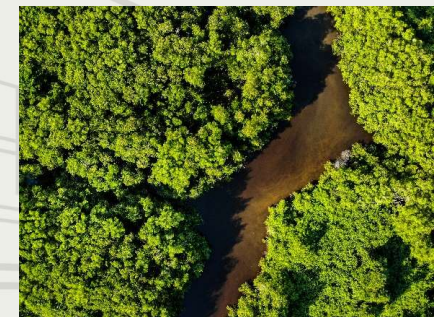
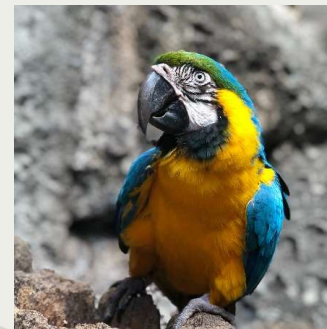
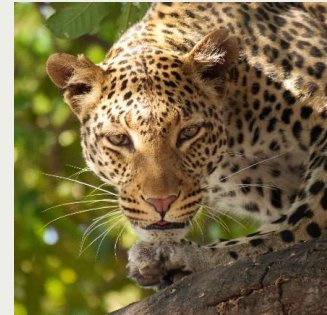


 **Hydropower plants**

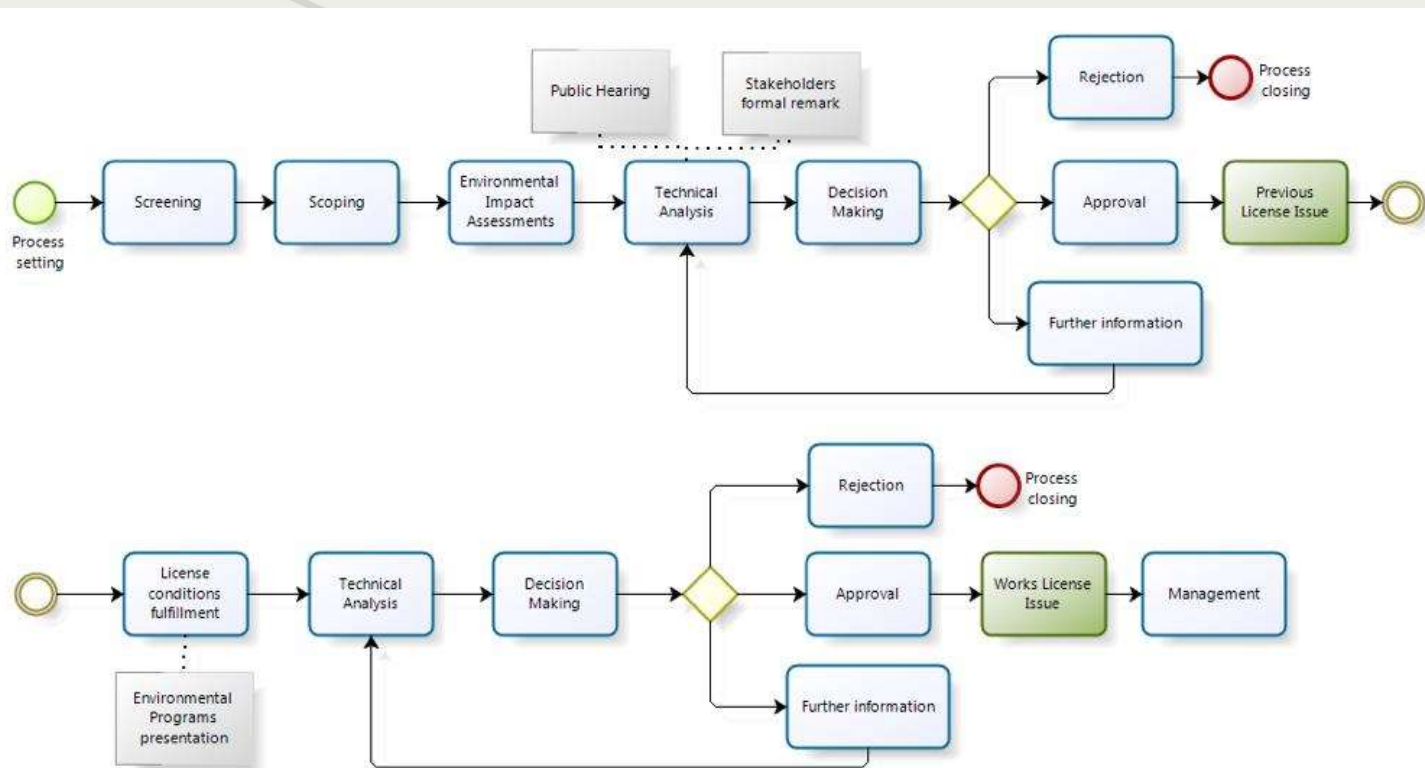
- Castanheira – MT
- Telêmaco Borba – PR
- Tabajara – RO
- Bem Querer – RR

Environmental Licensing

- Brazil is the most biodiverse country on Earth and that implies a major responsibility.
- It counts upon a strong legal framework, which comprises a specific chapter about environmental licensing enshrined in the 1988 Federal Constitution.
- Even before the Constitution, Brazil had already established an Environment National Policy (1981), which is still in force.
- The main purpose of the policy is making social, economic development compatible with preserving environment quality and ecological balance.
- Environmental licensing is a core tool to control and is required for carrying out any activity deploying environmental resources, that, effectively or potentially, bring about environmental degradation



Environmental Licensing Flow



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Highlights



Angra 3 Thermonuclear Power Generation

Basic features:

- Site: Angra dos Reis/RJ
- 67.1% of civil works have been accomplished
- Expected investments for accomplishing the works: US\$ 3.91 billion
- Current stage: The Resolution which has qualified Angra 3 in PPI has established an Interministerial Committee through the Decree 9915/2019 to assess the most economically feasible model for the Plant. The Terms of Reference draft for hiring those assessments is in progress.



ELETRONBRAS - Brazilian Power SOE

- A bill will be sent to Congress to set up the guidelines for the privatization.
- Privatization model: Increasing social equity by issuing common shares
- Assigned body to coordinate assessments: BNDES

Some data about the company

- Power generation capacity: 46,856 GW
- Generators (total): 233 units, out of which:
 - Hydropower plants : 47 units
 - Thermoelectric plants: 114 units
 - Wind power plants: 69 units
 - Solar power plant: 1 unit
- Transmission Lines: 70,201 Km
- Current Federal Government shareholding: 51% of common shares (with voting rights)
- Federal Government participation in the total equity (common shares + preference stocks) : 40.98%



Highways

Highway	Length	Capex (US\$)	Auction
BR-364/365/GO/MG <ul style="list-style-type: none"> Road section from Jataí/GO to Uberlândia/MG 	437 km	503 million	Sep 27, 2019
BR-101/SC <ul style="list-style-type: none"> Road section from Palhoça /SC to the frontier of SC/RS 	220 km	709 million	2020/Q1
BR-153/080/414/GO/TO <ul style="list-style-type: none"> Road section from Anápolis/GO to Aliança do Tocantins/TO 	850 km	1.85 billion	2020/Q3
BR-381/MG e BR-262/MG/ES <ul style="list-style-type: none"> Road section of BR-381/MG from Belo Horizonte/MG to Gov. Valadares/MG Road section of BR-262/MG/ES from João Monlevade/MG to Viana/ES 	672 km	2.2 billion	2020/Q3
BR-163/MT e BR-230/PA <ul style="list-style-type: none"> Road section from Sinop/MT to Miritituba/PA 	970 km	413 million	2020/Q3
BR-116/465/101 /SP/RJ (Dutra) <ul style="list-style-type: none"> Road section from Rio de Janeiro/RJ to São Paulo/SP 	635 km	2.7 billion	2020/Q4
BR-040/495/MG/RJ (Concer) <ul style="list-style-type: none"> Road section from Juiz de Fora/MG to Rio de Janeiro/RJ 	211 km	636 million	2020/Q4

New Modelling: lower toll fee (limited discount) + higher concession fee as a tiebreaker

Railways



• Ferrogrão – Grain Railway – EF-170/MT/PA

Section between Sinop/MT and Miritituba/PA

- Length: 933 km, plus the sections of Santarenzinho (32 km) and Itapacurá (11 km)
- New railway corridor to export grains through the North region, which aims at improving the outflow of the Midwest agribusiness output by connecting it to the port of Miritituba, in the state of Pará.
- Estimated cargo: 38.3 million tons in 2030 and 46.8 million tons in 2050
- **Estimated investment : US\$ 3.1 billion**
- IRR: 11.04%

• West-East Integration Railway (FIOL)

Section between Ilhéus/BA and Caetité/BA

- Length: 537 km
- It will allow the iron ore produced in the Caetité/BA region and the grain output of the West of Bahia to be exported through the South Port, a port complex to be built close to the city of Ilhéus/BA. In the future, it is also possible to establish a connection between the South Port and the North-South Railway (FNS).
- Estimated cargo: 11.8 million tons in 2023 and 15.8 million tons in 2053
- **Estimated investment: US\$ 805 million**, out of which US\$ 390 million are earmarked to accomplish the works
- IRR: 11.04%

Projects for Privatizing Public Ports

Modeling challenges



- Brazil has been successful in leasing port areas to the private sector, but still hasn't designed a privatization modeling for public ports management.
- There are currently three public ports under the assessment stage for structuring the most adequate modeling to attract the private sector.
- Public Administration guidelines may pose obstacles to an efficient management of a port asset, which relies on quick decision making to properly respond to regular modernization processes and innovation breakthroughs of the sector.
- Besides technical, operational, financial capacity improvement, the private sector plays a major role in these projects as an alternative for reducing the state burden regarding financial commitments and constant mandatory investments.

Port of Santos/SP (CODESP)

Current stage: Planning

Assessments delivery and approval:

2020/Q4

Public Hearing: 2021/Q1

Investments: US\$ 366.7 million



Port of Vitória/ES (CODESA)

Current stage: Assessments

Bidding Notice: 2020/Q4

Auction: 2021/Q1

Investments: US\$ 244.5 million



Port of São Sebastião/SP

Current stage: Planning

Bidding Notice: 2021/Q1

Auction: 2021/Q2

Investments: US\$ 140.6 million



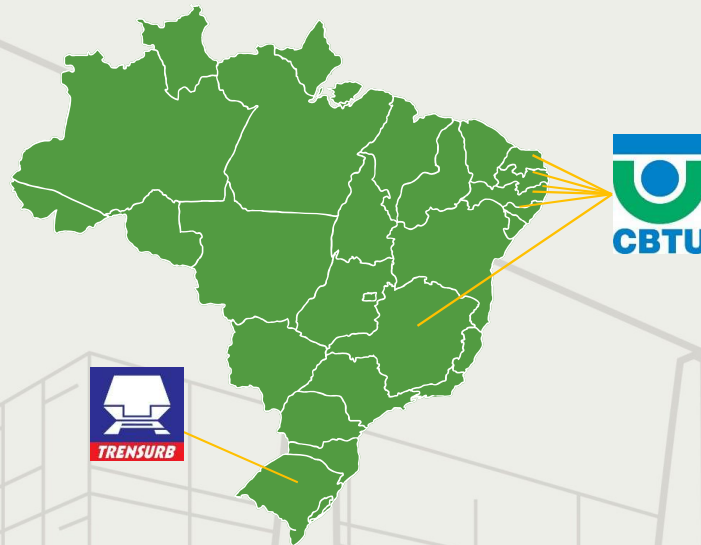
Mining

- 30 mining projects of CPRM (Mineral Resources Research Company) ownership, with mineral deposits already spotted.
 - 5 qualified projects in PPI:
 - Polymetallic - Palmeirópolis/TO
 - Phosphate - Miriri/PB
 - Copper - Bom Jardim/GO
 - Coal - Candiota/RS
 - Kaolin - Rio Capim/PA
 - The project in Palmeirópolis-TO will be the 1st CPRM area to go on auction. It is a milestone for the sector: it is the first step to entitle the private sector to exploit assets that have been in the CPRM portfolio for the last 30 years.
 - There are still 25 projects in the CPRM portfolio with potential to be qualified in PPI in the future.



Porto Alegre Commuter Trains (Trensurb)

- Porto Alegre
- Canoas
- Esteio
- Sapucaia do Sul
- São Leopoldo



Brazilian Company of Commuter Trains (CBTU)

- Belo Horizonte (MA)
- Recife (MA)
- João Pessoa (MA)
- Maceió (MA)
- Natal (MA)

- Concession structuring by BNDES
- Scope: Assessment for demerging (CBTU), decentralizing companies and providing the concessions for services (CBTU and Trensurb)
- The Terms of Reference draft is in progress to hire assessments

PISF – Project for integrating river São Francisco into the water basins in the north part of the NE region

Basic features:

- The PISF main goal is increasing water security to the inward basins in the north part of the Northeast region, which face a dire situation of water vulnerability
- The North Axe has 96% of accomplishment and the East Axe 98%
- 390 cities and 12 million people will benefit from the PISF
- Investment of US\$ 2.95 billion
- Operational costs are estimated in US\$ 123 million per year

Brief overview:

- The project, which has been structured in 2 main axes of water transfer – North and East axes – and connected branches, aims at solving the dire circumstances of water shortage in the north part of the Northeast region. It will provide water security to many areas in the states of CE, PB, PE and RN, which will take advantage of significant water transfer from the river São Francisco basin.

Interventions: 477 km of canals; 9 pumping stations; 27 reservoirs; 4 tunnels; 13 aqueducts; 9 substations of 230 kV; 270 km of high voltage transmission lines

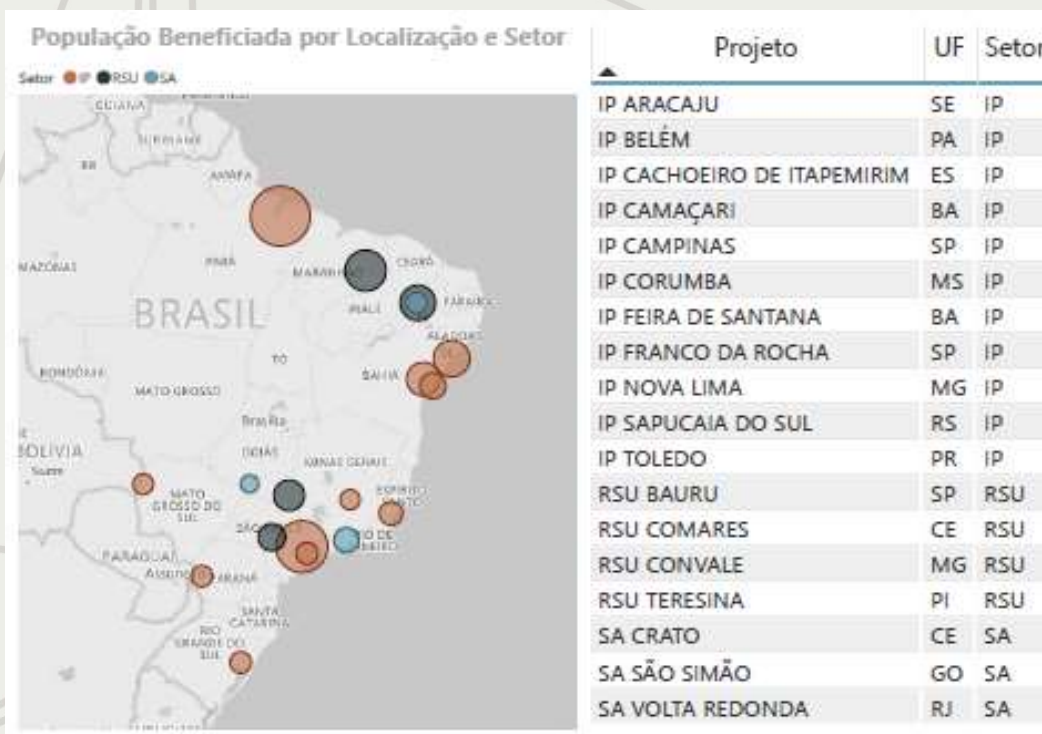
Qualification model: Assessments for accomplishing the works and eventually operating and managing the concession

Deadline for assessments: December 2019



Project in municipalities

Supporters:



**Projects
18**

**Entitled population
8 million**

**Cities
38**

**Investments
US\$ 406 million**

**Sectors to benefit from the project
- Bidding schedule**

Solid Waste Treatment – 2020/Half 1

Basic sanitation - 2021/ Half 2

Public lightening – 2020 / Half 1

The challenge of universalizing basic sanitation

Qualifying assessments for universalizing basic sanitation through PPPs, taking into account an estimate of US\$ 147 to US\$ 171 billion in investments to achieve universal coverage by 2033.

- Assignment: Federal District and municipalities

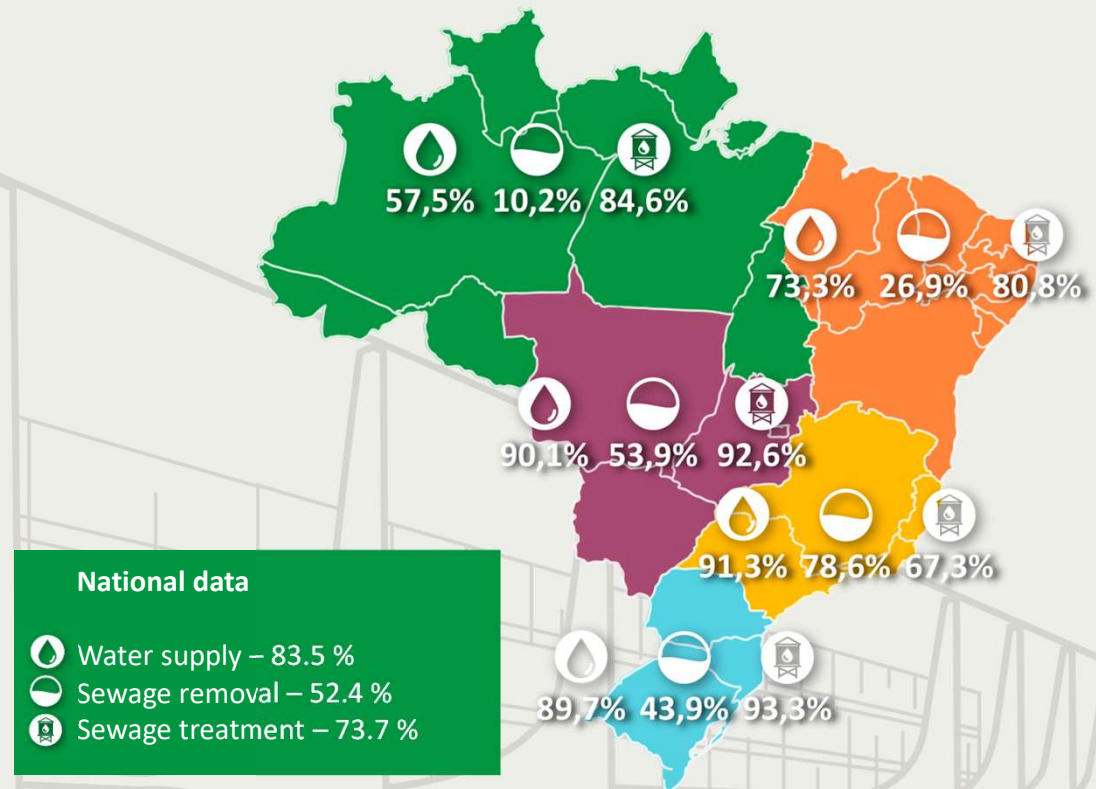


The challenge of universalizing basic sanitation

Goals

- Universalizing the coverage of basic sanitation in Brazil
 - In Brazil, a population similar to Canada's has no access to proper water
 - More than 100 million Brazilians have no access to sewage removal and treatment
- Forging partnerships with the private sector and subnational level bodies
- Structuring bankable projects to provide proper services to Brazilians

Access to basic sanitation



Source: IBGE (2017), with data from National Industry Federation (CNI).

PPI upcoming events (2019)

Highway (auction and notice)

- BR-364/365-MG/GO
- (Section between Jataí/GO and Uberlândia/MG)

Auction on September 27

- BR-101/SC
- (Section between Palhoça / SC and the frontier SC/RS)

Bidding notice in 2019/Q4

Investments: US\$ 1.21 billion
Bid criterion: Lower toll fee

Lotex (Auction)

Investments: US\$ 132 million

Auction on October 22

Mining Rights (Auction)

Polymetallic - Palmeirópolis/TO
Zinc, Lead, Copper (Cadmium, Silver and Gold)

Investments : R\$ 62.97 million
Signature Bonus: US\$ 3.70 million

Auction on October 21

Oil and Gas (Auction)

Petrobras' transfer of rights

- Largest oil and gas auction in the world

Round 6

Auction on November 6

Round 16

Auction on October 10

Investments : US\$ 0,26 trillion
Bid criterion : US\$ 29,4 billion

Energy

Generation of New Energy:

- The market offered 100,829 MW, in 1,829 projects.;

Auction on October 18

Transmission lines

- 12 transmission lines

Auction on December 19

Investments : at least US\$ 1.02 billion (transmission)

Bid criterion : Lower energy tariff

Railways (renewal)

- Rumo Malha Paulista Logistics

Addendum in 2019/Q4

- Vitória-Minas and Carajás Railway

Addendum in 2019/Q4

Investments : US\$ 4.91 billion
Bid criterion : US\$ 1.41 billion

PPI auctions scheduled for 2020

2020/ Half 1

2020 / Half 2

<p>Highway</p> <ul style="list-style-type: none"> BR-101 (SC) 	<p>Mining Rights</p> <ul style="list-style-type: none"> Copper - Bom Jardim de Goiás (GO) Coal - Candiota (RS) Phosphate - Miriri (PB) 	<p>Highways</p> <ul style="list-style-type: none"> BR-153/080/414 (GO/TO) BR-381/262 (MG/ES) BR-163/230 (MT/PA) BR-116/465/101 (RJ/SP) - President Dutra BR-040/495 (MG/RJ) - Concer 	<p>Airports – Round 6</p> <p>22 airports in 3 clusters</p> <ul style="list-style-type: none"> North 1 Cluster South Cluster Central Cluster
<p>Railways</p> <ul style="list-style-type: none"> MRS (SP/RJ/MG) FIOL (BA) FCA (SE/ES/SP/GO/BA/RJ/MG/DF) 	<p>Port Terminals</p> <ul style="list-style-type: none"> 4 in the Port of Itaquí/MA 2 in the Port of Santos/SP 1 in the Port of Suape/PE 	<p>Railway</p> <ul style="list-style-type: none"> Ferrogrão – Grain Railroad (MT/PA) 	<p>Energy/Generation</p> <ul style="list-style-type: none"> Angra 3 (RJ)
		<p>Port Terminals</p> <ul style="list-style-type: none"> 1 in the Port of Aratu/BA 	

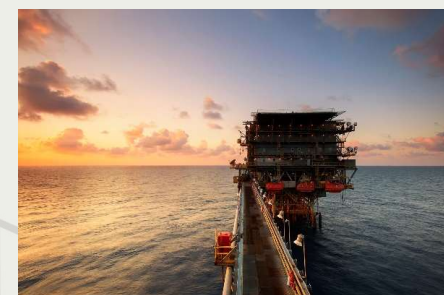
Scan the QR Code for further details



New projects*

- Round 7 of Airport Concessions
- Round 17 of O&G auctions under the concession agreement
- Round 7 of O&G auctions under the PSA (production-sharing agreement)
- Auction on New Energy (LEN) A-4
- Auction on New Energy (LEN) A-6
- Auction on transmission lines
- Mining rights
- Port terminals
- New privatizations
- Public Health sector

** Projects still to be qualified in PPI*



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