Large Infrastructure Investment Programs
Opportunities in Brazilian Market
1. Investment Partnerships Program

2. Priority Portfolio

3. New Concessions Model

4. Road Concessions Program

4. Public Lighting Services
1. Investment Partnerships Program
2. Priority Portfolio
3. New Concessions Model
4. Road Concessions Program
5. Public Lighting Services
The Investment Partnerships Program (PPI) was launched in May 2016 to coordinate and supervise the concessions and privatization process in federal infrastructure projects.

PPI’s Special Secretariat supports Ministries and Regulatory Agencies in the planning, modeling and monitoring processes of their portfolio of infrastructure projects, preserving their political and regulatory competencies.

The PPI main goals are 1) to improve the transparency, predictability and governance of a solid portfolio of projects, 2) to stimulate the competition for the projects 3) to enhance the quality of public services for Brazilian citizens.
Governance – PPI Council

**PPI Council**

- Carrying out the competencies attributed to the
  - Federal Board of Public Private Partnerships
  - National Council for the Integration of Transportation Policies
  - National Council of Privatization

- Ministers responsible for the proposals being assessed may be invited to participate in the Council meetings

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**Members**

- President of the Republic
- The Minister Chief of General Secretariat
- The Minister Chief of Staff of the President
- Ministers of Finance, Planning, Mining and Energy, Transportation, Ports and Civil Aviation, and Environment
- Presidents of BNDES, BB, CEF

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**Attribution**

- Recommending to the President of the Republic
  - Approval of long-term investment policies through partnerships
  - Inclusion of projects in PPI and its strategic guidelines
  - Project structuring schedule
  - Monitoring the implementation of the PPI
  - Federal policies to foster partnerships in states and municipalities
The role of SPPI in project structuring

Planning and Prioritization
• Long-Term Planning and a State Policy for Infrastructure Development
• Creation of an institutional structure responsible for integrating infrastructure planning and institutional and regulation improvements

Project Preparation
• Coordination in the decision-making process due to dispersion of the competencies for structuring the projects among different ministries and agencies

Tender Notice Publication and Licensing
• Coordination between multiple authorities,
  • Celerity in releasing projects

Project Procurement
• Transparency and predictability of individual projects and the pipeline, attracting more and new competitors who have adequate time for proposal preparation
• Simplification and elimination of formalities and bidding requirements that artificially decrease the competition

Contract execution and regulation
• Better definition, and consolidation of the contract conditions.

During the process: Maintaining a transparent dialogue and permanent interaction with society and interested investors
1. Investment Partnerships Program

2. Priority Portfolio

3. New Concessions Model

4. Road Concessions Program

5. Public Lighting Services
Auctions And Renewals Carried Out
Auctions and renewals carried out

PPI Projects:

146

54

Auctioned/renewed

37% of the PPI portfolio in 15 months

US$ 10.5 billion

Planned investments

Source: Federal Government (Projeto Crescer)
Auctioned/Renewed undertakings

Source: PPI Secretariat.
<table>
<thead>
<tr>
<th>Project</th>
<th>Grant / Bonus (US$)</th>
<th>Investments (US$)</th>
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<tbody>
<tr>
<td></td>
<td>Planned</td>
<td>Obtained</td>
</tr>
<tr>
<td>Airport concessions</td>
<td>0.96 bn</td>
<td>1.19 bn</td>
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<tr>
<td>Port Terminals</td>
<td>4.8 mn</td>
<td>22.10 mn</td>
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<tr>
<td>Oil and Gas Concession (14ª)</td>
<td>0.5 bn</td>
<td>1.23 bn</td>
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<tr>
<td>Privatization of Power (Distribution)</td>
<td>0.5 bn</td>
<td>0.70 bn</td>
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<tr>
<td>Extension of Generation Plant</td>
<td>3.5 bn</td>
<td>3.87 bn</td>
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<td></td>
<td>5.6 bn</td>
<td>7.0 bn</td>
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<table>
<thead>
<tr>
<th>Sector</th>
<th>Discount (US$)</th>
<th>Investments (US$)</th>
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<tr>
<td></td>
<td>Planned RAP</td>
<td>RAP Obtained</td>
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<tr>
<td>Power Transmission Concession</td>
<td>0.83 bn</td>
<td>0.53 bn</td>
</tr>
<tr>
<td></td>
<td>0.8 bn</td>
<td>0.5 bn</td>
</tr>
</tbody>
</table>

*Total investments expected in the auctions: US$ 10.5 billion*
Ongoing Auctions and Renewals
Projeto Crescer – in progress

92 Projects

US$ 32.6 billion Planned investments

Highways 8
- 4 Biddings
- 4 Studies

Railways 8
- 5 Renewals
- 3 Biddings

Electric Power 19
- UHE - 1 Extension
- 11 Transmission Lots
- 6 Distributors
- 1 Privatization

Oil and gas 5
- 3 Pre-salt sharing
- 1 Exploration and Production
- 1 Marginal accumulation

Mining 4
- Concession to exploitation of Mining areas

Airports 18
- 14 Concessions
- 4 Shareholding selling

Port Terminals 25
- 7 Renewals/ Rebalancing
- 17 Biddings
- 1 Expansion

COMAER 1
- Public-Private Partnership (PPP)

Lottery 1
- Concession of the right to exploit

Currency House 1
- Privatization

Supply 2
- CEASAMINAS CASEMG Privatization

Source: Federal Government (Projeto Crescer)
1. Investment Partnerships Program
2. Priority Portfolio
3. New Concession Model
4. Road Concessions Program
5. Public Lighting Services
Brazilian concessions reached a limit and need to be reviewed:

- The present model does not support less profitable roads
- Main concessionaries and construction companies are involved in lawsuits
- Limited fiscal space to public investments
- Changes in financial conditions from the main lender

Which creates an opportunity to propose a new model:

- A more efficient solution using a cross subsidy model
The new model will propose alternatives for the improvement, evolution and continuity of the road concessions program ...

- Two initiatives that are coordinated and integrated by EPL
- System view instead of single concession view
- It integrates the government data in order to create a complete database
and GIF is supporting two important initiatives in the new model

- National Logistics Analysis
- Economic and Financial Modelling
- Legal and Regulation Analysis
- Engineering and Technical Studies
- New Concession Model Proposition
- Studies & Regulation Review

EPL´s Planning Capacity

- Revised National Logistics Plan
- Road Details Database
- Planning Tool
- New Legal and Regulatory Adjustment Propositions
- New Project Portfolio
- New Road Concession Program
Many Government actors are involved in the discussions

New Road Concessions Model

- National Infrastructure of Transports Department (DNIT)
- Transports, Ports and Civil Aviation Ministry
- Transportation Regulatory Agency ANTT
- Planning, Development and Management Ministry
- SPPI
- EPL
- Institute for Applied Economic Research (IPEA)
- World Bank
- World Bank
The National Logistics Plan (PNL)

The PNL’s objective is to present the diagnosis and the proposals of investments to improve the efficiency of transport infrastructure and logistics.

The process starts with the definition of the basic network to be considered and in which the assumptions of transport demand, economic growth, available network, etc. will be applied, in order to design a scenario in 2025.

In the 2025 scenario it is applied a prioritization methodology to define the investment needs.

**Multimodal Basic Network**

- Roads - 107.705 km
- Railways - 22.962 km + 2.140 terminals
- Waterways – 11.155 km + 45 main ports
- Cabotage – 8.500 km
- Pipelines – 3.392 km
- Roads – Public works until 2018 – 273.4 km
Assumptions for the 2025 scenario

Assumption: inclusion of initiatives with assured execution and expected completion by 2025

➢ ROADS
  o Contracted public works portfolio
  o Investments in existing Concessions: (Planned + NICE*)
  o Projects included in PPI - Projeto Crescer;
  o Auctions of BR-116 RJ/SP, BR-116/RJ, BR-040/RJ/MG, BR-153/GO/TO. (new concessions to be supported by GIF)

➢ RAILROADS
  o Contracted public works portfolio
  o Projects included in PPI
  o Renegotiation of existing concessions:
    ▪ FCA - Ferrovia Centro Atlântico;
    ▪ MRS Logística;
    ▪ EFC - Estrada de Ferro Carajás;
    ▪ EFVM - Estrada de Ferro Vitória Minas;
    ▪ ALLMP - Malha Paulista.

*NICE – New investments in existing concessions
Network demand for the 2025 scenario

2018 Network

2025 Network

2025 Network Demand – 2025 Scenario
1MM ton

Agricultural solid bulk volume

0 6 12 23

General cargo volume

0 20 39 79

Non Agricultural solid bulk volume

0 50 100 199

Liquid bulk volume

0 14 27 54
Road investment needs for the 2025 scenario

**Roads**

<table>
<thead>
<tr>
<th>State</th>
<th>Ext.(km)</th>
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</thead>
<tbody>
<tr>
<td>AL</td>
<td>16,9</td>
</tr>
<tr>
<td>BA</td>
<td>1,578,0</td>
</tr>
<tr>
<td>CE</td>
<td>125,5</td>
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<tr>
<td>DF/GO</td>
<td>288,5</td>
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<tr>
<td>ES</td>
<td>553,6</td>
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<tr>
<td>GO</td>
<td>1,363,6</td>
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<tr>
<td>MA</td>
<td>1,204,8</td>
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<tr>
<td>MG</td>
<td>4,620,4</td>
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<tr>
<td>MS</td>
<td>1,195,6</td>
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<tr>
<td>MT</td>
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<td>PA</td>
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<td>PB</td>
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<td>PI</td>
<td>471,9</td>
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<tr>
<td>PR</td>
<td>1,435,4</td>
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<tr>
<td>RJ</td>
<td>264,6</td>
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<tr>
<td>RN</td>
<td>225,7</td>
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<td>RO</td>
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<td>RS</td>
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<td>SP</td>
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<tr>
<td>TO</td>
<td>629,5</td>
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<td>Total</td>
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**Railroads**

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<th>Ext.(km)</th>
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<tr>
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<td>MS</td>
<td>405,3</td>
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<tr>
<td>MT</td>
<td>98,2</td>
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<tr>
<td>Total</td>
<td>649,2</td>
</tr>
</tbody>
</table>
PNL
Project Portfolio
US$ 42.3 bn

Not granted Roads
13.257,8 km
US$ 29.6 bn

Granted Roads
4.911,2 km
US$ 11.9 bn

Railroads
649,2 km
US$ 0.83 bn
1. Investment Partnerships Program
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Portfolio Definition

Qualified highways for studies:
- BR-116/RJ/SP
- BR-116/RJ
- BR-040 MG/RJ
- BR-153 GO/TO (due to contract default)

Based on data from PNL and FEP Rodovias.

Pilot Development and Standardization

EPL will hire IFC and WB
IFC and WB should execute the technical studies with GIF’s support
Standards of the process and documents should be defined during the execution of the projects.

Capacitation

IFC support will allow EPL and its government counterparts to acquire knowledge
EPL will prepare a specialized team to consolidate its role as the manager of infrastructure projects in Brazil.

Replication

EPL and its government counterparts will replicate the technical and financial structuring experience of the pilot projects in the new highway concessions.
Highways – BR-116/RJ/SP (Presidente Dutra)

- Brownfield Project
- 402 km km of extension
- Average daily volume: 42,000 vehicles/day
- The stretch is granted to CCR. The current concession contract expires in March 2021.
- Bidding for a new concession before the end of the current contract
- Importance: it connects the two major metropolitan regions of the country (São Paulo and Rio). In addition, the highway is part of the main link between the Northeast and the South of the country, cutting across 34 cities.
- Feasibility studies will be hired in Oct/2017.

Source: Secretaria do PPI.
Highways - BR-153/GO/TO

Stretch Goias / Tocantins

- 624.8 km of extension
- Average daily volume: 8,000 vehicles/day
- As a result of the default of the contractual obligations by the current concessionaire, ANTT has decided to extinct the concession. The Transportation Ministry confirmed the decision. It is the first extinction in the Brazilian road concessions history.
- Importance: it connects Goias and Tocantins. The main route for the industrial production of the Manaus Free Zone to the South and Southeast of the country, and also for the grains and the agricultural produced in the region.
- Feasibility studies will be hired in Oct/2017.

Source: Secretaria do PPI.
Highways – BR-116/RJ (Rodovia Santos Dumont)

- Brownfield Project
- 142.5 km km of extension
- Average daily volume: 23,000 vehicles/day
- The stretch is administered by the Rio-Teresópolis Concessionarie (CRT). The concession contract expires in March 2021.
- Bidding for a new concession before the end of the current contract
- Importance: The highway is the only route, from the city of Rio de Janeiro, to get around the Guanabara Bay, allowing access to the Lakes Region, to the north of the state and to the North and Northeast regions of Brazil.
- Feasibility studies will be hired in Oct/2017.
Highways – BR-040/MG/RJ

Brownfield Projects

180 km of extension

Average daily volume: 17,000 vehicles/day

The stretch is administered by the CONCER. The concession contract ends in March 2021.

Bidding for a new concession before the end of the current contract

Importance: Connects Rio de Janeiro and Juiz de Fora. It is the main road corridor between the states of Minas Gerais and Rio de Janeiro, besides being a relevant stretch of the radial highway that connects Brasília and Rio

Feasibility studies will be hired in Oct/2017.

Source: Secretaria do PPI.
1. Investment Partnerships Program
2. Priority Portfolio
3. New Concession Model
4. New Road Concessions Program
5. Public Lighting Services
In December 2002, a constitutional amendment allowed the collection of a ‘contribution’ (similar to a tax) for public lighting services defrayal (hereafter called CIP) by municipalities and the Federal District with the exclusive purpose of paying for public lighting services. This ring-fenced resource must be used to pay for electricity supply, as well as its maintenance, installation and public lighting equipment improvement.

The implementation of CIP creates increased assurance that the resources needed to pay for the public lighting services will be generated. As such, CIP flows can be used in business models with private sector (e.g., loan payments, payments paid to the concessionaire in the case of PPP, etc.).

In 2015, from 5,570 municipalities, 2,765 reported their collections with CIP, corresponding to R $ 4.9 Billion (US$ 1.5 bn)

When considered all municipalities, it is estimated a potential market of R $ 7.5 Billion (US$ 2.3 bn)

Sources:
World Bank: LIGHTING BRAZILIAN CITIES: BUSINESS MODELS FOR ENERGY EFFICIENT PUBLIC STREET LIGHTING
Radar PPP Data from 21/02/17
Public lighting services market overview

Municipal Groups Statistics

<table>
<thead>
<tr>
<th>Group</th>
<th>Population</th>
<th>Points of light</th>
<th>Estimated Investments (R$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total (MN)</td>
<td>Total (MN)</td>
<td>Total (MN)</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>Avg</td>
<td>%</td>
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<tr>
<td></td>
<td>Avg</td>
<td>Avg</td>
<td>Avg</td>
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<tr>
<td></td>
<td>Avg (MN)</td>
<td>%</td>
<td>Avg (MN)</td>
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<tr>
<td>A</td>
<td>59,9</td>
<td>5,1</td>
<td>107,499</td>
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<td></td>
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<tr>
<td>B</td>
<td>23,8</td>
<td>2,8</td>
<td>31,490</td>
</tr>
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<td></td>
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<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>C</td>
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<td>2,1</td>
<td>6,303</td>
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<td>E</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: World Bank: LIGHTING BRAZILIAN CITIES: BUSINESS MODELS FOR ENERGY EFFICIENT PUBLIC STREET LIGHTING

Note: estimative made by the World Bank Group and Pezco Results of the grouping of cities – including the estimated number of cities, population, points of light, etc. – should be considered as indicative, with limited purpose of creating a general market view.
Objective: Developing projects to modernize municipal public lighting parks through PPPs

Portfolio Definition
- Prioritize and select pilot projects to be structured
Up to ten municipalities will be considered in the analysis
CEF will hire and lead the project.

Pilot Development and Standardization
IFC and WB should execute the studies with GIF’s support
Standards of the process and documents should be defined during the execution of the projects, including a guarantee mechanism to attract financing.

Capacitation
CEF will prepare a specialized team to replicate the model in other municipalities.

Replication
CEF will replicate the technical and financial structuring experience of the pilot projects to a larger scale of Brazilian municipalities.

1 Year Partnership among SPPI, CEF (Caixa Econômica Federal), World Bank and IFC