



Public Street Lighting in São Paulo

**ESMAP Knowledge Exchange Forum: Livable
and Energy Efficient Cities**

**Mobilizing Resources and Engaging with the
Private Sector**

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Viena, Austria

June 16, 2015



**PREFEITURA DE
SÃO PAULO**

São Paulo - Highlights

An aerial night photograph of São Paulo, Brazil, featuring a prominent modern cable-stayed bridge with a central pylon and numerous stay cables, illuminated in green. The bridge spans over a complex highway interchange with multiple overpasses. The city's lights are visible in the background under a dark blue twilight sky.

2nd most important city concerning the attractiveness of inward investments (FDI Intelligence)

Most promising financial center in 2012 (The Banker)

High Level of HDI - 0.805 (UNDP)

12nd richest city in the world (by GDP) (Brookings Institute)

The biggest city of Southern hemisphere with 11,9 million people (SPC & VB)

Headquarter of BM&Fbovespa – one of the biggest stock exchange in market value in the world (Agência Brasil)

Secretariat of Service has been working on several initiatives to make São Paulo a city more livable and energy efficient

Public Street Lighting

A Public-Private Partnership to the modernization and expansion of the biggest Public Lighting Park in Latin America, with more than 620,000 lamps.

Solid Waste Management

Increasing level of recycling (4% to 10%) from the universal selective collection, with 4 Mechanized Processing Units and 3 Ecoparks with power generation.

Public Wi-Fi

Open and free WiFi with high speed – in 120 squares and public parks. Partnership with the Private Sector to extend the service to more 120 square and 700 bus stops.

Fab-Lab

Implementation of 12 advanced laboratories of digital manufacturing. Fab-labs (fabrication labs) focused on the production of equipment with technology destined to those with disabilities.

In the last 2 years, the Secretariat has been working to improve the service in Public Lighting

Implementation of
more than 47,000
new lamps

Between 2011 and
2014, reducing in
75% the annual
average of registered
complaints

Modernization of
more than 198,000
lights

VIADUTO DO CHÁ
323 LED lamps installed



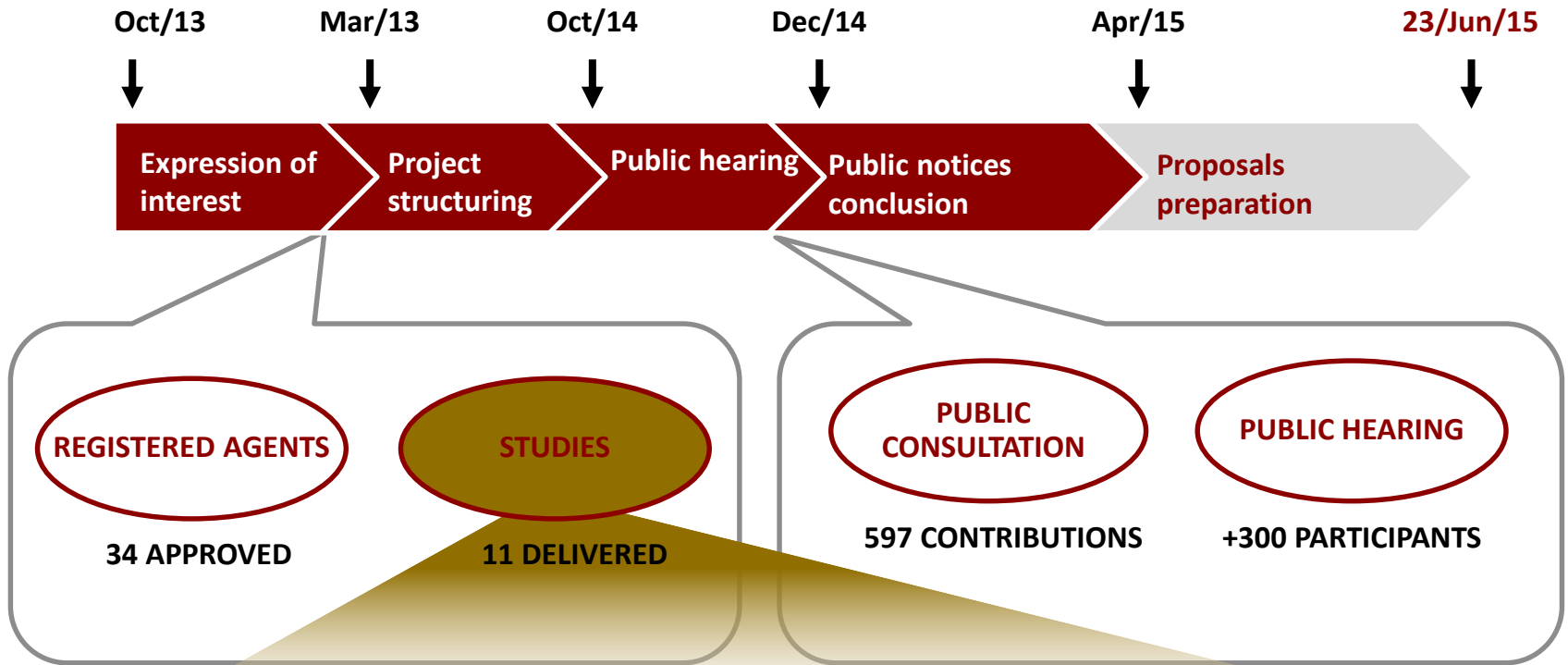
Avenida 23 de Maio
688 LED lamps installed



The PPP project in Public Lighting aims to promote the improvement in a long term

- One of the biggest and pioneering concessions concerning Public Street Lighting in the world.
- Adoption of **sustainable practices**, focused on energy efficient, integrated to other municipal public policies.
- Focused on **the level of the service** (light quality).
- **Complete Service Concession**, including modernization, expansion, operation and maintenance of the whole street lighting network.
- **Remote monitoring and management** of the entire public street lighting network.
- **Service universalization** throughout the city.

The project structuring focused on the dialogue with civil society



Expression of interest attracted several international groups/players



Project Data

Deadline

20 years

Maximum consideration

€ 8.7 million/month (€ 104 million/year)

Main characteristic

Modernization of 620,000 lamps

Expansion of 76,000 lamps in the first 5 years

Expansion of 1,300 lamps/year after the 5th year

Development of a operational control center

Creation of a remote control system within the entire network

Investment (Capital Expenditure)

€ 360 million in the first 5 years

€ 570 million through the concession

Concession details

International Public Competition

Contract based on performance

Risk allocation

Technology flexibility (LED or superior technology)

Key challenges

- Development of a dynamic and structured interaction between the public and private sectors during the project structuring period.
- Execution complexity of the project reasoned by scale and coverage.
- Structuring of projects facing the lack of initiatives similar in size and coverage to be used as a reference.
- Election of selection standards to choose a better prepared proponent to deal with the complexity of the project.
- Identification and allocation of risks in the PPP contract.

How the project turns São Paulo into a more livable and efficient city

Quality of Life

- Light pollution
- Quality lighting in urban spaces

Environment

- Reduction of CO₂ emissions
- Adoption of technology free of heavy metals

Energy Efficiency

- Reduction of +50% in energy consumption
- Increase of useful life of lamps (+10 years)

Economy

- Reduction of government expenses
- Investment increase

Smart City

- Use of lighting grids as a platform for the installing smart services

Safety

- Reduction of crime
- Reduction of accidents overnight

LED

Conventional Lamps

23 de Maio Avenue during the process of modernizing the public lighting grids

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