Belo Horizonte Schools







Belo Horizonte and the Education context

Project Goals and Content

Structure

Lessons Learned

End results



Belo Horizonte: facts and context



- Population: 2.4mm, and 5.4mm in the metropolitan region (3rd largest metropolitan area in the country);
- Capital of the 2nd most industrialized State in Brazil;
- One of the **host-cities** of the World Cup;
- Pioneers in the development of PPPs and Concessions in Brazil;
- Public Pedagogical services highly-rated by the population
- But only 35% of the children at the kindergardenage had access

The expansion of Public Schools network were the most relevant demand at the Municipality by the population

Context:

- Child Education:
 - Restricted access (vacancies covered about 35% of demand)
 - New economic and urban contexts are pressuring the public network for new vacancies in child education
 - o The waiting list had over 11,000 children
- Basic Education
 - The implementation of the integrated school, which serves full-time students, increases the need for new facilities
 - Universalized education (compulsory attendance / enrolment) – kindergarten level is Municipal's responsibility
 - High expenditures with school transportation in order to attend students who live far from the existing schools

Strategic Planning:

BH Goals and Results 2009-2012:



 Supporting Project 5. Child Education Expansion

Increase the number of vacancies for 0-5 years old children through the construction of <u>100 new UMEIs</u> (kindergarten) = 44,000 new vacancies.

Supporting Project 6. Integrated School Expansion

Expand vacancy in the Integrated School for students attending daytime basic education classes

Construction of <u>12 new schools</u> = 12,000 new vacancies.

• Supporting Project 7. Improvement in the Quality of Education







The main challenge = meet the current and future needs of the population with limited investment capacity

Challenges:

- Lack of enough resources (physical, technical and human) for new construction, faced with other investment needs by the Municipality
- Gap between supply and demand for public/free educational services vis-à-vis the actual schools network.
- Universalisation requirements: Municipalities obliged to provide education for children between 4 and 5 years old from 2016 onwards: pressure of demand on the public network

Key Questions:

Considering the current resource/capacity constraints, how is it possible to enable the construction of all 100 new UMEIs and 12 Elementary Schools in order to meet the goals and the population needs?





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Project Goals





PPP is fully commited to supporting activities. The pedagogical activities remain under the Municipality's hands



Expansion and Improvement of the Schools Network

Final and educational activities

- Educational Organization
- Teaching, capacity building and teachers cadre' offer
- Pedagogical and didatic plan
- Analysis and management of the teaching indicators as well as of the quality of teaching
- Development / Acquisiton of the didatic material
- School catering

Supporting activities

- Civil Works
- Equipment and furniture
- Administrative Services
- Cleaning and sanitation
- Laundry
- Utilities and Energy management
- Building's conservation and maintenace

PPP SCOPE



Pedagogical and management roles are kept as public responsibilities

Activities which are NOT included in the PPP Contract

- ✓ Planning and Pedagogical Management
- Capacity building, management of the teachers'cadre
- Definition of the pedagogical and didatic plan
- Pedagogical Services
- Acquisition of educational materials and inputs
- Technology (IT systems, xerox and printing)
- Catering
- Transportation

Definition of the architectonic design of the units

✓ General management of the units



PPP to build 32 new UMEIs (Kindergarten) and 5 EMs (Elementary Level) units in one single contract



- Expansion of the number of school places at the Municipality level:
 - Kindergarten Level: **14 thousand places**
 - Elementary Level: 4,8 thousand places
- Construction of 30 new UMEIs (kindergarten) and 2 reconstructions
- Construction of 5 new Elementary-Level Schools
- Length of construction: 37 units under a timeline of 2 years (10 units delivered within 12 months and the remaining within more 12 months = 24 months max)



Project Scope

- 32 Kindergarten (0-6 yrs) 440 children, 1,100m²
- 5 Elementary Schools (6-14 yrs) 960 students, 3,500m²
- PFI covering:
 - Civil works
 - Furnishing and equipping
 - Administrative services
 - Facility management
 - Laundry
 - Utilities and Energy
 - Security



PPP entails kindergarden and elementary school units, children from 0-14 years old



Each Kindergarden-level unit (UMEI) supports 440 children from 0-5 years old - 1.100 m2 of constructed area







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IFC's Scope of Work

- Technical, Commercial and Legal Due Diligence
- Market Consultations to assess attractiveness requirements
- Development of the Transaction Structure
- Bidding Documents Preparation
- Project Marketing
- Assistance during the Bidding Process



Basic Project structure

- Concession period: 20 years
- Maximum Government availability payment: USD 1.608 mm per month
- CAPEX: USD 70mm (91% of which being civil works)
- OPEX: USD 10mm / year
- Downpayment of USD 49mm
- Government payment based on KPIs



To speed up units delivery, federal and municipal resources were used as funding source of the PPP, with a pre-fixed downpayment amount upon the delivery of each unit



Pre-set payment paid by the Public Authority, upon 30 days of the conclusion and acceptance of each one of the schools units

Availability Payment equation

Formula VECP (R\$)	= VMCP (R\$)	X	FO (%)	x	FD (%)
 VECP (ACTUAL AV. PAYMENT) Amount effectivelly paid to the Concessionaire; Linkede with the number and type of unit under operation and accordin to KPIs; 	 VMCP (MAX. AV. PAYMENT AMOUNT) Nominal amount of the availability payment; Constant value of the contract. 		 FO (OPERATIONAL FACTOR) Adjustment Factor - accordingly with the number and type of units under operation at that month; Varies from 0% to 100%, according to the number of units under operation. 		 FD (PERFORMANCE FACTOR) Adjustment Factor of the Av. Payment according with the ID (Performance Index); Based on the measurement of the ID of the previous month carried forward by the next three months.



Risk Matrix

Concessionaire		Granting Authority		
Risks	Reasons	Risks	Reasons	
Financing	Private Sector is responsible for getting financing and negotiating its terms	Unilateral Changes of specification requirements (technological	Technological changes are unforeseeable. Difficult risk to allocate to private concessionaire.	
Damage/Loss/Theft of concession assets (non-insured)	Non-insured ítems must be borne by Concessionaire	innovations) Force Majeure (non-	Best practice	
Change in cost of capital, inflation,	General macroeconomic prices are not a Project- specific risk. Availability payment is adjusted	insured)		
interest rates, FX Strikes of its employees cadre	according to Brazilian CPI. Inputs (such as HR resources) better managed by the concessionaire, it should bear it.	Auhtorization / Orban Auhtorization and Licensing Issuance	Key issue that can impact the implementation (time, \$) of units, but mostly under the Municipality's hands	
Environmental Liabilities upon signing	This is a contingency that can be known during due- diligence. It was precified in the financial model.	Higher costs due to change of the available list of land	Lands were known upfront in the bidding documents.	
Land Geological risks	Risks known a priori by certain geological studies available to bidders	Vandalism	Usual occurrence in Brazilian public schools, better managed by the Public Sector	
		Delays due to lack of action to issue	Authorizations/Licenses are a municipal / granting	

World Bank Group

licences to free land

authority responsibility

Performance Measurement System



Guarantee structure

- Downpayment
 - Reduces fiscal exposure of the municipality
 - Decreases the monthly government payment, providing additional room for other projects
 - Reduces the guarantees needed for the project
- Backstop facility
- Two different types:
 - 1. Availability Payment Guarantee: 6 months of availability payment secured
 - 2. Investments Guarantee: Decreasing during the concession period







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A bit of lessons learnt

• Guarantee mechanism: mismatch between the time taken to create a backstop facility and the project chronogram

• Lesson: move forward with the project and include a contractual provision for the creation

of the facility as a condition precedent to the contract signing

• Use of PFIs when public educational level is good: PFIs are less sensible to political reactions and can be equally important for development results, since you expand the capacity that will be follow by a good public educational pattern

• Lesson: PFI approach can be structured in a simpler way and achieve good development

• Land availability is crucial for implementation speed: One of the reasons for strong implementation speed was the priority working group created by the Municipality to free and regularize available land

- Lesson: PFI approach can be structured in a simpler way and achieve good development
- **Construction methodology is also key:** Modular architectonic/construction methodology is key to gain scale and allow a more speedy delivery of spread-out units.
 - Lesson: Have interested players that are able to construct in such a manner and in a way able to generate such an economy of scale.





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Timeline and results

- The Belo Horizonte Schools PPP was the first education sector PPP in Brazil
- FASA signature: March, 2011
- Bidding: June 5th, 2012
- Contract signing: July 25th, 2012
- Construction beginning: September, 2012
- The first school began operations in September, 2013
- In August, 2014, there was a Contract amendment encompassing the construction of 14 more schools (Kindergarten), which shall open 6,000 additional vacancies



PPP/PFI model showed to be the best implementation strategy in terms of timeline

Forecasted construction length via PPP vs. Traditional Public Works Model



Awards

- In 2012, KPMG considered the Belo Horizonte Schools PPP one of the top 100 Inspirational and Innovative urban infrastructure projects in the world
- This Project also led Belo Horizonte to be nominated as a Latin America Region finalist in the Financial Times/Citi Ingenuity Awards 2013





