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water treatment Image unknown

Water and Sanitation System, Bucharest, Romania

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***On this page:** A case study on Water and Sanitation System, Bucharest, Romania. Find more at the [Municipal Public-Private Partnership Framework - Project Summaries](#) section for brief summaries of around 100 projects from around the world, examples of successes and challenges, as well as innovative ideas on solutions, or visit the [Guidelines on Innovative Revenues for Infrastructure](#) section.*

Project Summary:

Background

The municipality of Bucharest was facing numerous challenges related to its water supply and sanitation system, including leaks in its water supply distribution network and an inadequate metering system. This contributed to high water losses (nearly 50 percent) and lower revenue collected by the municipality. The municipality also imposed relatively low tariffs and maintained a complicated ownership structure over the water infrastructure assets, which led to a lack of incentives to improve efficiency. At the same time, the municipality's water and sanitation system needed to be brought into compliance with European Union (EU) standards. To address these issues, the municipality decided to pursue a PPP for the operation and maintenance of its water and sanitation system with assistance from IFC as its transaction adviser. In designing this PPP, the municipality aimed to: (i) improve the consumer service level with minimal tariff increases through efficiency gains; (ii) make the system as self-sufficient as possible by transferring most of the investment responsibilities to the private sector, and (iii) avoid a private monopoly.

Project Structure

Based on the municipality's goals, IFC recommended a long-term concession that would allow the municipality to retain ownership of the assets while delegating responsibility for the provision of water and sanitation services and all related capital investments to a private partner. Upon approval by the municipality, IFC helped conduct the prequalification process and drafted the concession contract.

Six large, multinational companies were prequalified and, in 2000, Vivendi of France (now Veolia) won the bid to operate and maintain the water and sanitation system for 25 years. The award was based in large part on Vivendi having proposed the lowest average net present value tariff, which was about EUR 0.17 (or USD 0.19) per cubic meter. Subsequently, Vivendi entered into a subsidiary joint venture, named Apa Nova București, which serves as the operating entity and counterparty to the concession agreement. Apa Nova București was 80-percent owned by Vivendi and 20-percent owned by the municipality. The joint venture concessionaire is responsible for all operations and capital investments.

The contract included time-based performance targets for improvements in service quality and delivery as the key performance indicators for the private partner, as well as penalties for noncompliance. It also included a periodic tariff review scheduled at five, ten, and fifteen years, with readjustments in the event of project returns above or below a predefined band. The project was financed by loans provided by multilateral development banks and commercial banks, including the European Bank for Reconstruction and Development. Vivendi also contributed approximately EUR 35 million (USD 39 million) in equity.

Lessons Learned

The project has achieved much during the concession period. It obtained 100 percent compliance with EU water quality standards, recorded an increase in overall customer satisfaction (up from 46 percent in 2002 to 75 percent in 2009), expanded the coverage area (covering 92 percent of the city), and reduced leakage, non-revenue water, and commercial losses previously resulting from under-billing and theft. By 2008, efficiency gains had produced cost savings totaling USD 49 million. As of 2010, Apa Nova București had invested more than USD 250 million in upgrading and servicing the system without public subsidies. Despite no subsidy, it has been able to provide a service quality above Romanian standards and nearly on par with Western European quality levels. It was also able to keep the tariffs well below the Romanian average. Of Apa Nova București's USD 250 million investment, USD 66 million was invested in pipe replacement and other measures to reduce leakage, which will help keep costs and tariffs low in the long term.

The private partner was able to maintain low tariffs without subsidy due to the following:

- Tariff increases were tied to improvements in service delivery, providing an additional incentive for the concessionaire to be efficient.
- The most significant factor in efficiency gains was the improvement in labor productivity. This was obtained by investing in new equipment that increased employee safety and productivity, delegating more responsibility to the staff, and selling 10 percent of the shares in Apa Nova București to workers in 2007 to improve relations between management and workers. Increased energy efficiency, collection efficiency, reduced leakage, and reduced non-revenue water further contributed to the efficiency gains.

The project has proven to be advantageous for both partners, public and private. The municipality has gained access to the private partner's knowhow and technology and receives a portion of the profits through its shares in the concessionaire and additional revenue from taxes paid by the private partner. At the same time, the private partner has recorded regular profits, stemming from operational efficiency and excellent performance in commercial management.¹

Footnote 1: <https://www.apanovabucuresti.ro/en/company/who-weare/the-concessioncontract/> accessed 12 February 2019

https://www.ifc.org/wps/wcm/connect/6eebdf00498390bc82dcd2336b93d75f/PPP_Stories_Romania_BucharestWaterAndSanitation.pdf?MOD=AJPERES accessed 12 February 2019

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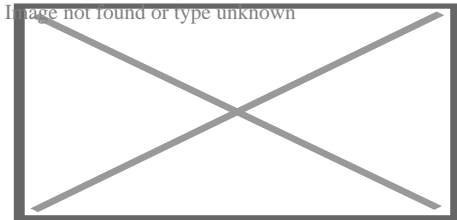
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The [Guidelines on Innovative Revenues for Infrastructure \(IRI\)](#) is intended to be a living document and will be reviewed at regular intervals. They have not been prepared with any specific transaction in mind and are meant to serve only as general guidance. It is therefore critical that the Guidelines be reviewed and adapted for specific transactions.

To find more, visit the [Innovative Revenues for Infrastructure](#) section and the [Content Outline](#), or [Download the Full Report](#). For [feedback](#) on the content of this section of the website or suggestions for links or materials that could be included, please contact the Public-Private Partnership Resource Center at ppp@worldbank.org.

