

# FSM: A business opportunity for the African private sector

A successful PPP experience in  
FSTP operation in Dakar, Senegal

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# Context : population of Dakar

- ❑ **Area: 550 km<sup>2</sup>**  
(0.28% of the national territory)
- ❑ **Population 2018: 3.6M inhbts**  
(58% of total urban population)
- ❑ **Urbanisation rate: 96.5%**



# Context : institutional, legal and political framework

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- Clear institutional organization with a single national responsible entity for sanitation**



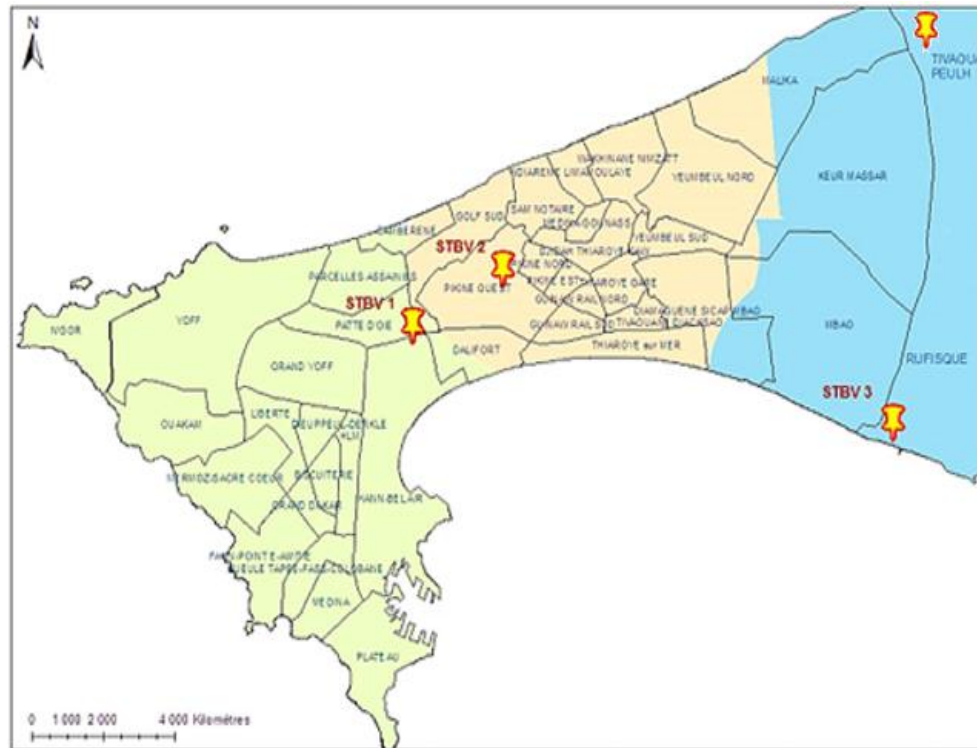
- Existence of legal instruments relating to sanitation**



- Prioritization of sanitation in public policies**
  - National program for sustainable development of autonomous sanitation
- Clear option for a strong involvement of private sector in onsite sanitation sector.**

# Context : Fecal sludge treatment

- ❑ 4 FSTPs
- ❑ Total volume of FS treated (2017): 2 000 m<sup>3</sup>/day.
- ❑ Dumping fee: \$ 0.5/m<sup>3</sup>.



# Context : Challenge before PPP (2013)

- ❑ **Poor performance of FSTPs due mainly to under-sizing of FSTPs.**
- ❑ **Unprofitable FSTP operation.**



# Context : The PPP construction approach for the management and operation of Dakar FSTPs



# DELVIC : An African private company specialized in onsite sanitation



▪ **2013: Llc company  
Capital of \$2,000**

▪ **2017: Ltd company  
Capital of \$95,000**

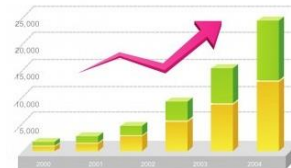
▪ **42 employees**

▪ **Turn Over 2018  
\$1,850,000**

# Dakar FSTP private operation : Main results

Successful operation of the 4 STBVs of Dakar Region on technical and financial plans:

- ✓ FSTP's upgraded (settling tanks, drying beds, flocculation).
- ✓ Good performance of FSTPs due to quality maintenance and optimized operations.
- ✓ Better service to emptiers and population (FSTP opening hours, sand of cistern, call center).
- ✓ Improvement of the working conditions of FSTP employees.
- ✓ Good relationship with emptiers.
- ✓ Increase of revenue and profit.





# Niayes FSTP aerial view and flocculation unit location



# Niayes FSTP flocculation unit – Main results

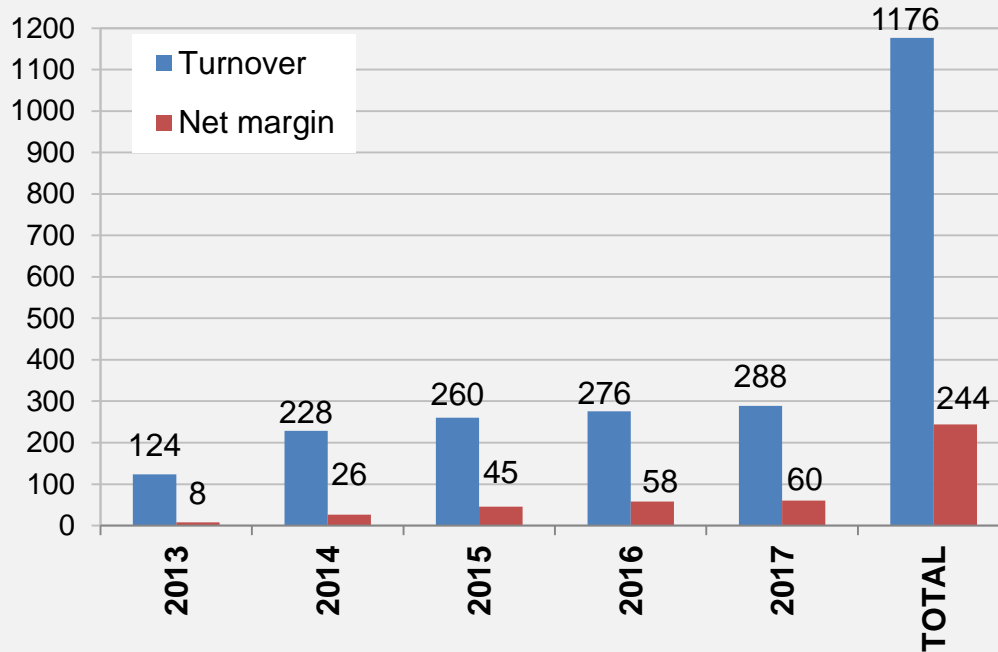


- ❑ Increase in the FSTP capacity from 60 to 500 m<sup>3</sup>/day.
- ❑ Multiplication by 2 of the quantity of sludge retained in the FSTP.

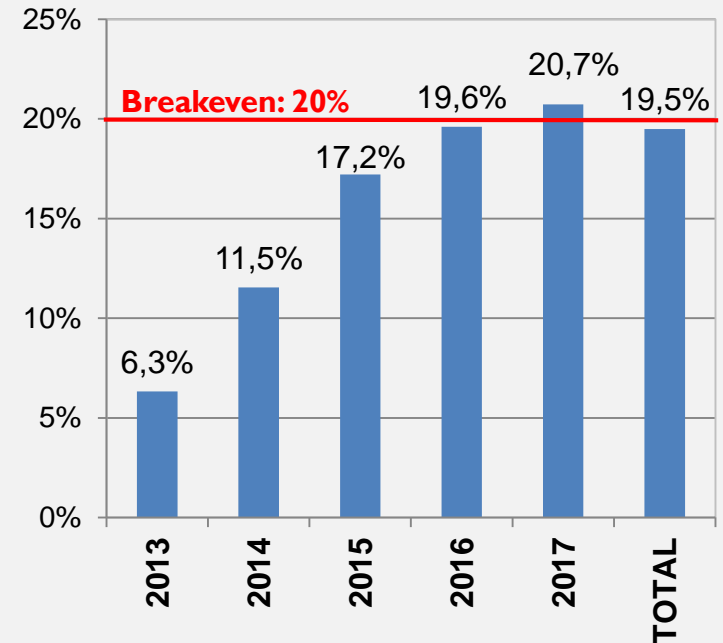


# Financial FSTPs results

Amount (x10<sup>3</sup> \$ per year)



Profitability (%)



# **Condition of success for private FSTP operation**

- 1. Strong willingness of the government to involve the private sector in onsite sanitation.**
- 2. Existence of institutional and legal framework favorable to FSM.**
- 3. Existence of an economy of scale (sludge quantity).**
- 4. Long term contract (at least 7 years).**
- 5. Fecal sludge valorization in high added value activities.**

# DELVIC's perspectives

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**Believe the person  
you want to become.**

**Believe the company  
you want your  
company to become.**



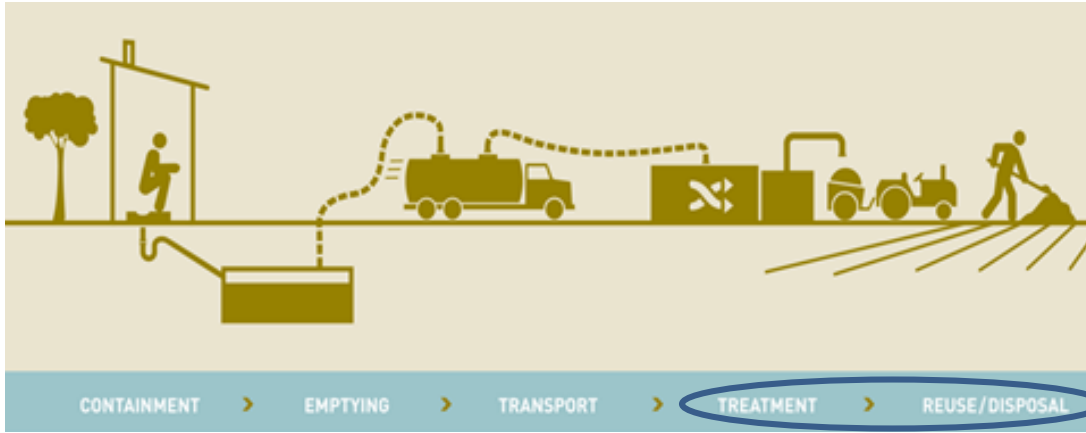
# DELVIC's perspectives

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**Provide sanitation services and products adapted to African market needs.**



# DELVIC's business



DELVIC's  
core business



# DELVIC's partners



BILL & MELINDA GATES foundation

JANICKI BIOENERGY



Communauté Urbaine de Yaoundé municipalities



Turn Over 2017  
\$1,850,000



## Biofilter toilet



## Composting



## Drying beds



## Flocculation



# R&D platform

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## Janicki Omniprocessor, pilot version



Fecal  
sludge

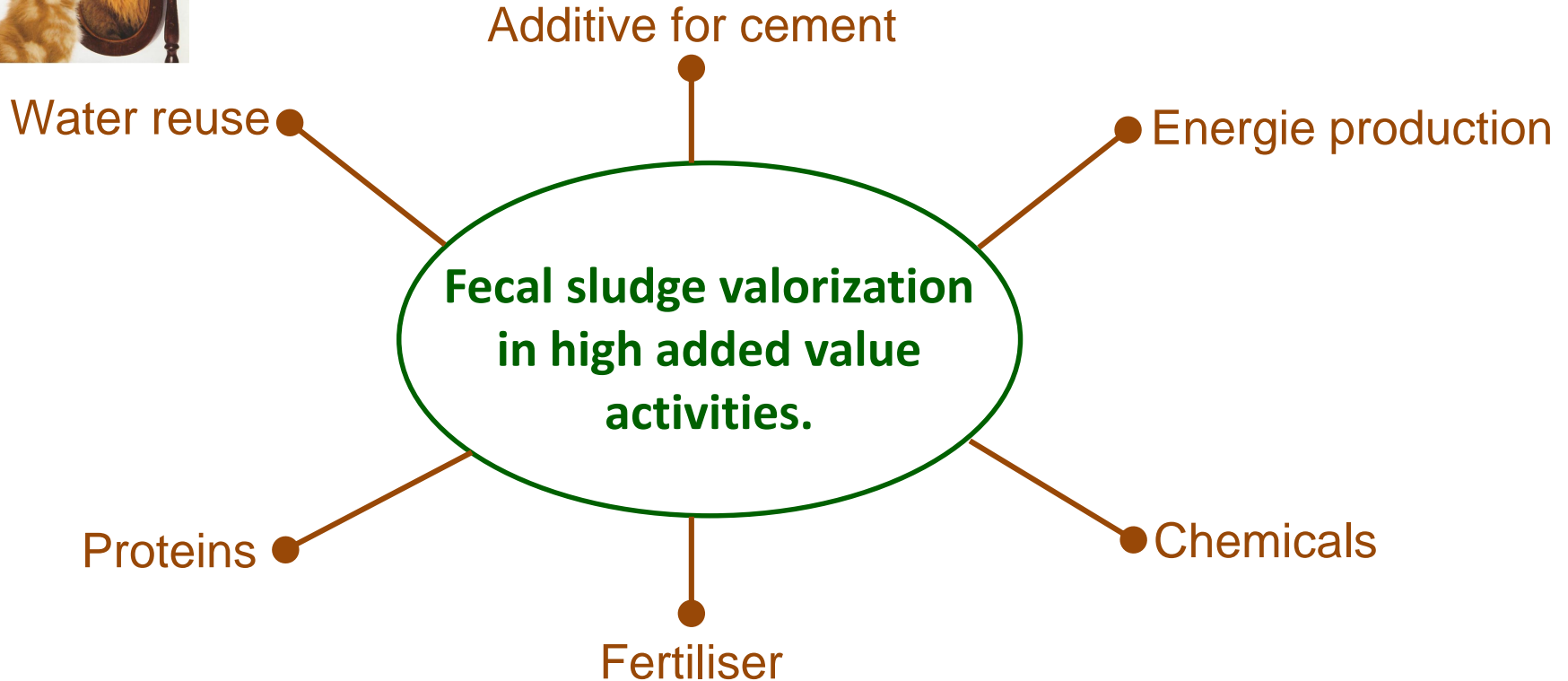


⚡ Electricity

💧 Good quality water

🗑️ Safe mineral ash

# The challenge for African private sector



*Thank you  
for your attention*

