

20th AfWA International Congress and Exhibition 2020

Breaking new grounds to accelerate access to water and sanitation for all in Africa

UCD SMART VILLAGE & MULTI-UCD

23rd – 24th February 2020, Kampala, Uganda

PATRICK SUHR – SUEZ UCD
TECHNICAL AND INNOVATION MANAGER



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- What is UCD and what is a UCD packaged plant ?



17

Million euros of turnover
Landing 2019

> 1,100,000
cubic meter per day produced

231

Of compact units installed up to date in
Emerging countries
Worldwide

37

Countries in the world

27

Full time employees

- UCD : Unité
Compacte
Degrémont



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- What is UCD and what is a UCD packaged plant ?

Small or large capacities,
single or multi package
plants (x40)



A worldwide market



A dedicated and motivated team
within SUEZ

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- What is UCD and what is a UCD packaged plant ?

One video tells more than 1000 words...

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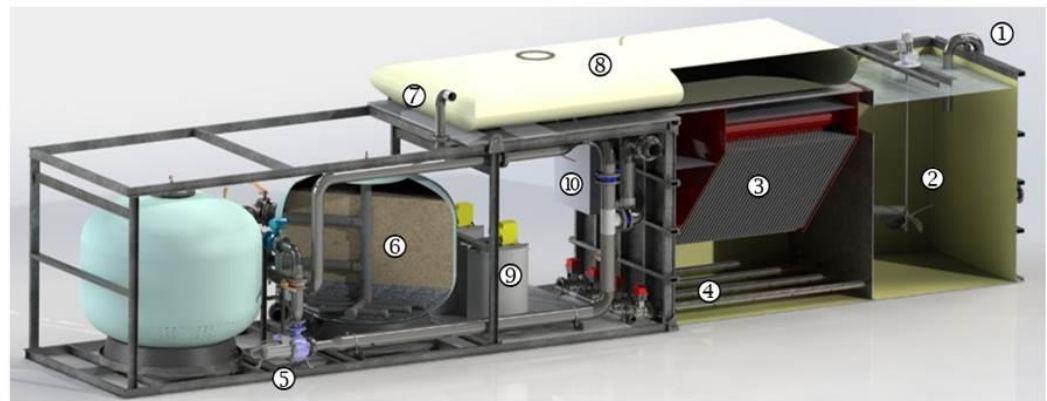
- Our new challenge, called UCD SMART VILLAGE: provide global solutions for access to water, sanitation and essential services to decentralized population

- **Drinking water :**

UCD FAST : a new product highly standardized, play-and-play, off the shelf, with energy savings, for 15 to 50 m³/h capacity



15 m³/h prototype



UCD FAST 40' for 50 m³/h

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- New possibilities are offered :
 - Energy autonomy thanks to shelter with solar panel
 - Digital and smart tools for operation monitoring

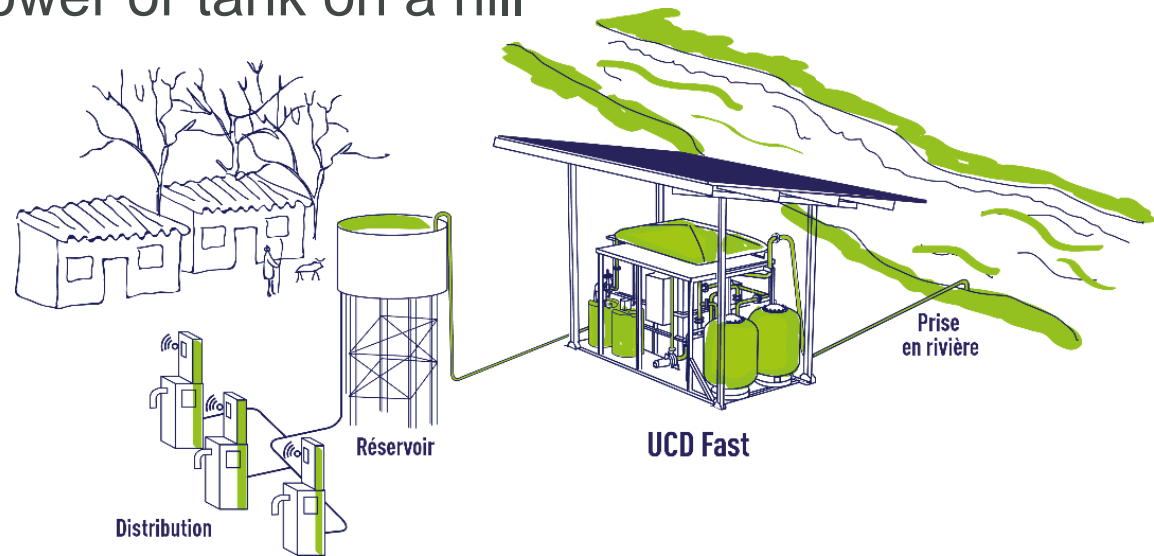


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SUEZ is able to supply each step of a complete water treatment line including :

- In-house pumping station floating on rivers or dams
- Conventional water treatment
- Drinking water pumping station
- Storage in water tower or tank on a hill
- Public fountain



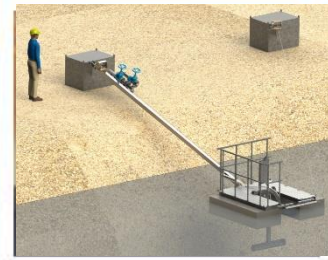
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- Water treatment plant UCD FAST**
- Robust and reliable treatment principles
 - Plug & play technology
 - Easy to operate and maintain
 - High lifetime due to design and materials
 - Autonomous in energy with solar panels (option)
 - Can be supplied with a GenSet (option)
 - Can be supplied with a drinking water transfer station



- Metallic water tower**
- Drinking water storage prior to distribution
 - Buffer storage for peak periods
 - Maintain a constant pressure for distribution



- Surface water pumping station**
- For pumping in river, lake, dam
 - Robust and reliable operating principles
 - Adapted to many bank topographies
 - Floating barge adapted to water level variation
 - Innovative solutions for cleaning and maintenance
 - Autonomous in energy with solar panels (option)



- Water kiosk in villages / towns**
- Various technologies are available
 - Consumers use pay-per-phone or pre-paid cards
 - Many kiosks can be connected to the water tower
 - Connection to consumer homes can also be provided



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- New possibilities are offered :
 - Public fountain can be smart with pay-by-phone or pre-paid cards, and data reporting, or can be traditional with a fountain operator



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■ Sanitation:

For isolated areas where no sewage network exists, UCD aims to develop a micro anaerobic digestion of feces

Objectives :

1. Fix the issue of sanitation management
2. Generate energy through biogas production

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■ For sanitation:

The main requirements to create a virtuous circle:

- Organize collection of feces from latrines in accordance with local habits and logistic possibilities
- Implement a treatment must be simple, robust and efficiency
- Make available for population the generated biogas for cooking, lighting or electricity production
- Make available fertilizer with reduced pathogens



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■ Organic matter up-cycling:

After sanitation treatment is validated, anaerobic digestion will be tested on organic matter up-cycling

Objectives:

1. Produce energy as biogas from organic wastes
2. Make it available for population and create possibilities of micro-exchanges with drinking water production line: for example, vouchers of biogas – water - electricity

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- **Demonstrators:**

Thanks to important investments of the SUEZ innovation program, 2 demonstrators will be implemented in Ivory Coast to test in real conditions :

- The drinking water global treatment line in 2020
- The sanitation and organic treatment with anaerobic digestion in 2021

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- The UCD team is available for any further information on UCD SMART VILLAGE or UCD package plants



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20th AfWA CONGRESS

— YOU ARE WELCOME —