



Water supply and wastewater  
detection, warning & treatment  
in the age of COVID-19

## **Covid-19 impact on Water Utilities**



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# Covid-19 impact on water utilities

## People - Keeping employees safe

Examples of specific measures taken:

- Revised **PPE** requirements according to job risk assessment
- Systematic **disinfection** of vehicles and facilities
- **No direct contact with end customers** (in home field service activities suspended)
- **Solo use** of vehicles
- Assigned teams only work together and do not cross over to other teams
- **Staggered start times** to limit group size in yard facilities
- Enhanced **delineation of job sites** to allow safe distance for crews
- Ensuring **subcontractors** follow the same safety procedures as a minimum
- **Awareness/training** campaigns on new rules and work practices
- **Mental health** support (e.g. hotlines, training for managers to lead remote teams and look after potentially distressed employees)
- Employees' **morale & engagement** initiatives, especially off-work employees (e.g. call for innovative ideas, employees volunteering platform)

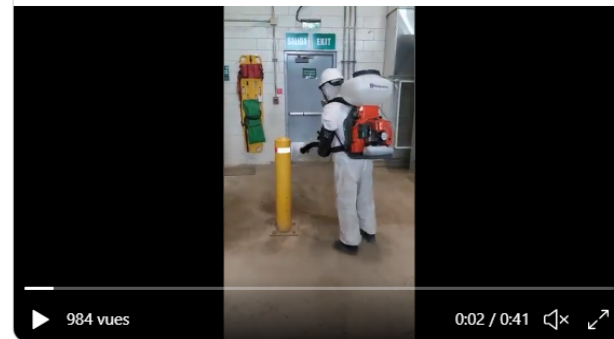
Potential follow-on effects: new ways of working, revised offices layout

In Peru 🇵🇪 Eduardo starts his day by disinfecting the [#wastewater](#) treatment plant of [#Arequipa](#) to secure the facility. Thanks to him, all workers are safe to maintain the services during the [#covid19](#). [#coronavirusperu](#) [#ByYourSide](#)

Traduire le Tweet

 **Suez Peru** @SuezPe · 31 mars

Eduardo, compañero del área de mantenimiento 🛠️, empezó su día de trabajo en [#Arequipa](#) desinfectando las instalaciones en la PTAR. Confiamos en su trabajo, nos da tranquilidad. [#COVID-19](#) [#SUEZ](#) [#Perú](#) 🇵🇪 [#coronavirusperu](#) 🌿. Tú [#QuedateEnCasa](#) 🏠



3:33 PM · 31 mars 2020 · Twitter Web App



# Covid-19 impact on water utilities

## Operations - Delivering safe water & wastewater services

Examples of measures taken to secure the continuity of service:

- Development of **BCPs** based on scenarios/staggered staffing plan and a comprehensive review of critical/at-risk activities
- Operational staff **back-up** list
- Switch to mass **teleworking** (office-based staff, call centers)
- **Deferral** of non-essential operations
- Management of **critical supply**
  - weekly review with top suppliers
  - identification of alternative suppliers and shared deliveries opportunities
  - revised ordering trigger to be more conservative
  - chemical tracker dashboard, tracking external labs status for contingency
- Mitigation of increased **cyber security** risks
- Securing **sludge disposal**

**Potential follow-on effects:** cost-effective advanced treatment for wastewater and sludge (incl. nature-based solutions), biosolids increased traceability, online monitoring of emerging pollutants, digital tools to support robust and efficient operations

Thank you, @suezIND team at #Coimbatore, for ensuring water supply and uninterrupted services as always, and fixing 150 leaks even during #21daysLockdownIndia.

To all residents of Coimbatore, the @suezIND team is #ByYourSide and will continue to be.

[timesofindia.indiatimes.com/city/coimbatore...](https://timesofindia.indiatimes.com/city/coimbatore...)

Traduire le Tweet



4:30 PM · 9 avr. 2020 · Twitter Web App



# Covid-19 impact on water utilities

## Customer - Maintaining a smooth customer experience

Examples of customers engagement initiatives:

- Addressing **customers and stakeholders' concerns** and fake news (e.g. drinking water quality) with simple, transparent and regular key messages
- Communications on customers behaviours (e.g. **stop wipes flushing**)
- Specific communication campaigns to support the creation of **online accounts, use of Apps, meter reading, mobile payments**. Billing collection/protection of revenues and cost recovery in a context of lower water consumption, while supporting local communities.

**Potential follow-on effects:** increased mobile and online customer transactions



SEAAAL  
Société des Eaux  
et de l'Assainissement d'Algérie

COVID-19  
#Restez\_chez\_vous

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- l'adresse mail : mail.1594@seaal.dz
- Le numéro du Centre d'Accueil  
Téléphonique Opérationnel, le  
1594; disponible 7j/7 et 24h/24



#21daysLockdownIndia

Our Customer Services team continues to be at your service in our operation areas.

✓ Our call centers are working 24X7, as usual:

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#IndiaFightsCoronavirus #COVID #ByYourSide



SEN EAU  
21 mars

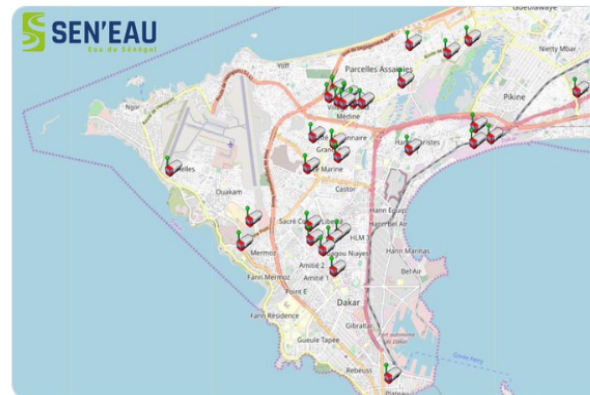
SEN EAU, SONES, Senelec, Orange Money, Free Money, Expresso se réunissent pour lutter contre le Covid-19. Les frais de règlement des factures par paiement mobiles sont offerts jusqu'au 20 avril.

Jany ARNAL  
DG SENEAU



SEN'EAU  
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2:40 PM · 9 avr. 2020 · Twitter for iPhone





# SARS-CoV-2 in wastewater systems

Since May 20, SUEZ R&D teams work on a R&D project answering to the following key questions:

- What is the amount of SARS-CoV-2 measured in various WWTP?
- Is the virus found in wastewater/sludge still infectious?
- What is the efficiency of different wastewater and sludge treatment processes in eliminating the virus?
- Can bacteriophages be used to evaluate efficiency of treatment processes?
- Can we find relationships between the SARS-CoV-2 data and other open data from the population?



#SUEZ R&D centers are leading a 1-year study to assess the viability & infectiousness of #SARSCoV2 in #wastewater & sludge in pilot countries #France 🇫🇷 #Spain 🇪🇸 & #India 🇮🇳. @BertrandCamus came visiting the experts at the #CIRSEE working with @CNRS @Univ\_Lorraine @CHRU\_de\_Nancy



# Key differentiators of SUEZ R&D Project

**The project leverages the opportunities that SUEZ can provide as global water utility operator**



The **development and common implementation of sampling and detection methods** with the support of our scientific partners in order to achieve robust and replicable results



The **geographical width** of the sampling campaign, which covers Spain, France and will soon integrate India. This provides an opportunity to explore the impacts of COVID-19 from a wide perspective



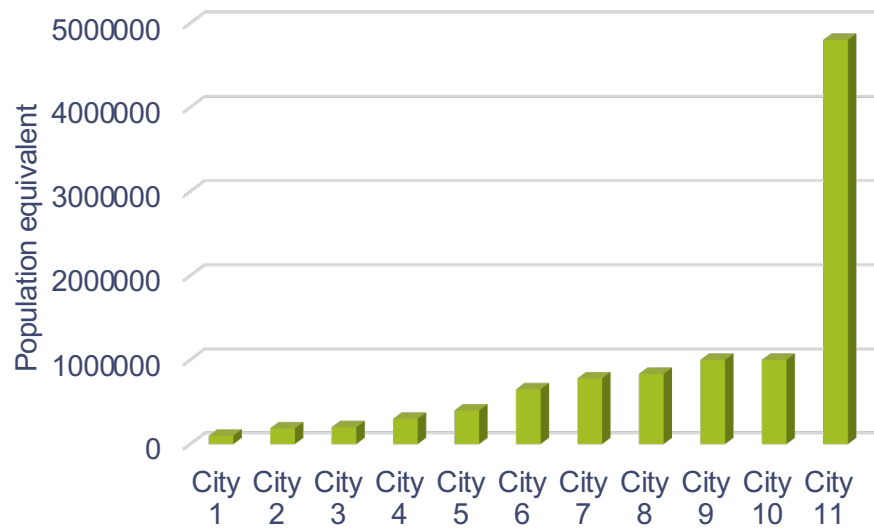
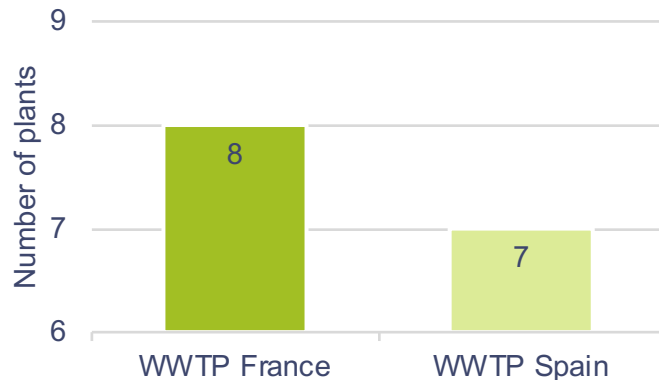
The **complete technology coverage** of the sampling campaigns, that cover most existing wastewater, sludge and tertiary treatment technologies



The **collaboration between several R&D organizations within SUEZ Spain and France together with key partners** to bring scientifically robust results



# SUEZ R&D project in Figures



- **15 plants covered, in 11 cities**
- **More than 10 million people served**
- **Cities with high, medium and low incidence of pandemic**
- **5 wastewater treatment, 4 sludge treatment and 3 tertiary treatment processes covered**
- **Close to 500 samples processed**



# Conclusions

## Coordinated response from operations and research

- Three main operational objectives: Safety first, Operations, Customer service
- Coordinated research project to answer key question.
- Research & science connected to operations are essential to ensure a safe & secure water & waste management



At SUEZ, our teams are engaged to ensure continuity of services for people and also for industries, especially on industrial sectors which are essential on these unprecedented times. [#pharmaceuticalcompanies](#) [#foodproduction](#) [#foodandbeverage](#) [#industry](#) [#ByYourSide](#).

Voir la traduction

