- Both children and adults at the institution soon became enthusiastic about the new taps. They could immediately see that they no longer wasted as much water as before"

Stephan Ogueri

Energy Technician in the Energy Team, Copenhagen Municipality



Over the last two years, the Copenhagen childcare centre FS Rosa on Amager has reduced its water consumption by as much as 27%, a saving of approximately Euro 4.000 per year, thanks to new electronic energy-saving taps. In total, the municipality expects to save Euro 320.000 a year on water consumption for the first 200 institutions alone.

Copenhagen Municipality has seen the light when it comes to water. A large-scale water-saving initiative has already reduced water consumption at the city's schools, and now all institutions have to get on board. It was the municipality's Energy Team that identified the huge potential. Copenhagen Municipality has a total of 740 childcare centres and 74 schools, so there are many buildings to monitor - and a huge potential. On schools and institutions alone, the municipality spends Euro 3 million per year on water, despite Copenhagen having one of Denmark's lowest prices per m3. In fact, the municipality only pays Euro 4/m3, whereas the average price for the entire country is Euro 9/m3 (cf. Danva 2017).

Just over a year ago, the Energy Team therefore launched a pilot project at the daycare centre FS Rosa at Øresundsvej on Amager. They chose the intelligent sensor taps from FM Mattsson, which automatically open and close when children wash their hands.

"Both children and adults at the institution soon became enthusiastic about the new taps. They could immediately see that they no longer wasted as much water as before," says Stephan Ogueri, Energy Technician in the Energy Team and explains why:

"In 2017 the Energy Team carried out a wide-ranging water savings project at around half the municipality's primary and lower secondary schools. At the schools, the municipality saved an average of 20-30% on water consumption, which corresponds to Euro 240.000 million a year. It is the same potential we have now been given the green light to try to achieve at the childcare centres".

### PILOT PROJECT PAVES THE WAY

The integrated institution FS Rosa was built in 2006, but there is nevertheless a potential for savings. The building has a total of 30 taps and now uses 866 m3 water/year. The year before the water consumption was 1012 m3, so a focus on the issue can make a real difference.





# FACTS ABOUT FS ROSA AND THE ENERGY TEST

Integrated daycare institution Total: 130 children and 20 adults

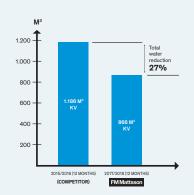
# Taps: approx. 30 in the entire building

### YEARLY SAVING:

Water consumption before: 1186 m3 Water consumption in 2018: 866 m3 Equivalent to a saving of 27% (15% per year).

## **PRODUCTS USED:**

FM Mattsson Tronic



Readings of the water consumption show very clearly that the project has produced results. In only two years, the institution has reduced its water consumption by 27%, which is equivalent to Euro 7.500. Money that can now instead benefit the children and the institution.



"Copenhagen Municipality has chosen to measure water consumption by installing a meter on each individual building. The figures from the supply company documenting the savings are therefore very accurate. The figures even include all the other forms of use. Water used to flush toilets and water the garden is therefore still included in the water consumption. The actual savings on the taps are therefore much higher than the 15% FS Rosa has saved in the last year, and the 27% saved since 2016," says Claus Dennis, Energy Adviser at FM Mattsson Mora Group Denmark, which produces the intelligent taps.

#### **TECHNICAL ASPECTS**

The project was carried out by the installation contractors Blikas VVS, whose five installers are still busy installing the new electronic taps from EM Mattsson all over the city.

"Blikas has a framework agreement with the municipality and won the contract in a tender. We handle everything from procurement and storage to installation and instruction. It is a great job. We are surrounded by happy children and adults, who are looking forward to using the new taps, so we are very pleased with the project," says Kasper Thybo, director of Blikas Øst A/S.

#### THE GOAL IS 40% - THROUGHOUT THE MUNICIPALITY

Water is one of our most important raw materials, but we waste a lot of it. Copenhagen is Denmark's largest municipality, and it has ambitious climate goals designed to ensure a sustainable environmental development. In terms of water, the goal is to reduce consumption by 40% before 2020. The Energy Team has made good progress with its focus on water in recent years, and this experience is now set to benefit other parts of the administration.

"The Energy Team started by creating a business case to document the potential from changing taps. Thanks to the practical experience and the very short return of investment which we were able to document, it did not take long before the project had been approved and money allocated to replacing taps at the first 200 institutions,"

says Stephan Ogueri. Together with his colleagues in the Energy Team, he is looking forward to demonstrating the results to Copenhagen Building Dept. and other administrative authorities and hopes to launch even more water-saving initiatives in Copenhagen Municipality.



