

A

www.renholdsnytt.no

Issue 6/2023

Cleaning news



Ørsta municipality

Page 30



Frank Opsanger

Side 28



Seize the stage!

Say 12

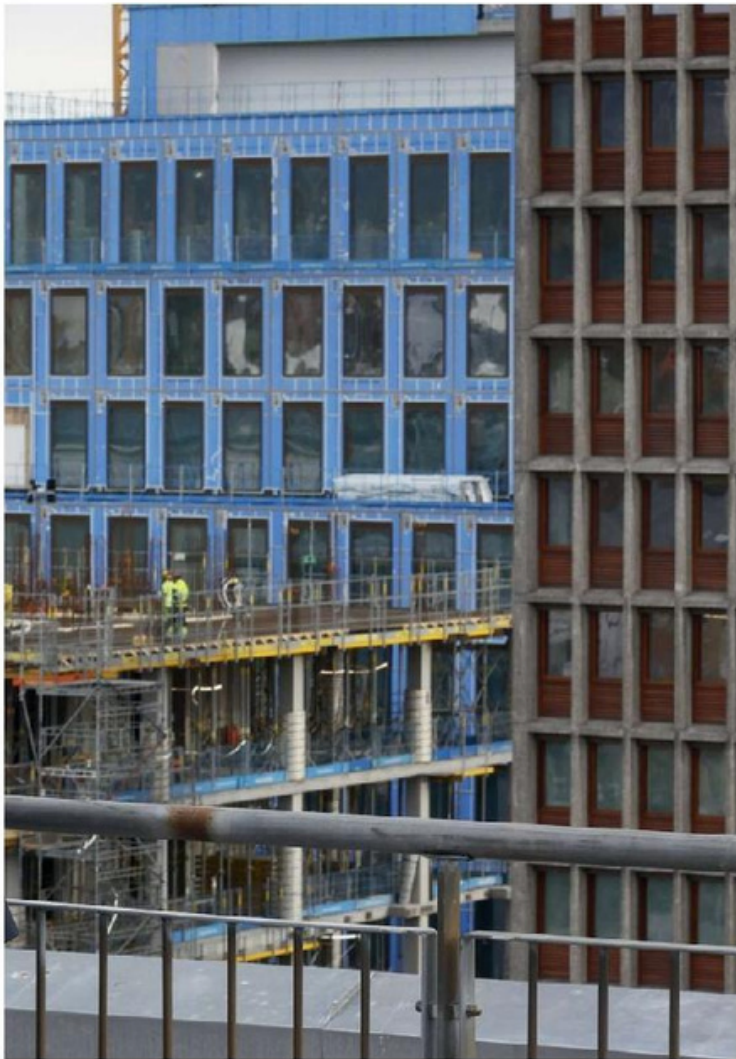


Building for sustainability

Side 36

TOPIC: CLEANING MANAGEMENT

Be listened to: Material selection - cleaning center - sustainability



is very comprehensive. Around 125,000 square meters of new construction is planned, in addition to the rehabilitation of approx. 33,000 sq m. It has three construction stages, the last of which will be completed in 2030.

- How is the cleaning section located?

- All cleaning centers are nailed down, right down to which machines should be there. We plan to move in in 2026, says Paulo Ruvina.

He says that these days DSS is trying to gain access to solutions that will be beneficial for both the environment and the economy as well as DSS's employees.

- We provide input to ensure the correct choice of carpets, furniture, door frames and other fixtures that will have an impact on operating costs there.

Take it face to face

The FM department is constantly trying out new solutions and technology. And are

no stranger to influencing producers and suppliers, so that they get to pilot and help develop solutions that are not yet available openly on the market.

They find out about product news in part by reading specialist literature from various countries,

frequenting trade fairs, visiting manufacturers and by following their websites. In other cases, the products may only exist as concepts and prototypes:

- We are often in discussions with Norwegian manufacturers and suppliers, to hear if they can develop something smarter and more sustainable, and let's pilot it. You have to visit manufacturers and delivery doors, simply go out and talk to people. That's not all you can do pick up the phone, he says.

Start-up assistance for new products Paulo Ruvina has a good support player in Bjarte Nygård, who is section manager and responsible for the other

the facility services, logistics and the environmental management system for the department community. Many of the new solutions create synergies between the services for which Nygård and Ruvina are responsible.

- One of the things that is really fun to be a part of is that we are not just an "early adapter, but have the opportunity to influence developments in our field," says Nygård.

- Many companies develop smart products, and in the development phase they are completely dependent on the knowledge and experience we have as potential customers. And when they are going to sell this sometime in the future, they are dependent on a customer case. Sometimes they come to us, sometimes we come to them, so that they don't have to look for a good case.

Must bring the people

- Sustainability has three pillars: economic, environmental and social sustainability. Most of our measures hit all three points, says Paulo Ruvina.

- It is extremely important to take care of people. It is difficult to recruit and retain qualified labour.

The department always has it with them the environmental perspective when it tries out new things. Being able to contribute to reduced environmental footprints is in itself an important driver for DSS. At the same time, Ruvina has noticed a strong trend in recent years:

- When professional colleagues visit DSS, they ask more and more about what we do within the environment and sustainability. They are concerned with sensors, robots and efficiency, and environmental considerations are increasingly important.

Bjarte Nygård emphasizes that social sustainability is just as strong. When something new is to be tested, it is important to bring the customers along. Because it is not necessarily carefree to try out new things.

- It must be well communicated why we do something and how. We expose the users to a pilot, he explains.

- In many cases, we also create better services for our customers. That's another part of this Kinder egg.

Because it pays off

Section manager Bjarte Nygård is concerned with how we can extract synergies between all the measures.

- Although we work tirelessly on our environmental performance, I sometimes say that we almost never take social responsibility, because the measures pay off purely financially!

Experience shows that environmental measures are profitable in themselves.

- It is exciting to see how things pay off, and the synergies between sustainability, technology and people, he adds.

TROND ERIK HILLESTAD
trond@askmedia.no



Big things are happening in central Oslo, and the two section managers Paulo Ruvina and Bjarte Nygård talk about their determined work to sell good solutions for the facility services.

Experience data makes it easier to be heard

When the first buildings in the new government quarter are completed in two years' time, DSS will have gained approval for many exciting solutions.

Paulo Ruvina and his fellow use of plastic/paper/soap/min beidereinigen I section dre is better for the environment, have a long time to quantify the advantages and disadvantages of different products. results in less need
- When we are in a meeting with architects and others, we can actually say "We have tested this. It provides the following benefits in the form of for work / better ergonomics", or something else. - Then we can do something completely different reduced means of influencing the decisions, i.e. to say that "in 2026 or 2030 we believe that something will come that can work".

Tested in advance Ruvina leads the Cleanliness and Environment section of the Ministry's Security and Service Organization (DSS), which is responsible for the cleanliness of the government buildings. Everything that will go into the new premises must be clarified a long time in advance, out of consideration for both construction processes and tender processes.

- We have to decide a lot of the technical cleaning aspects long in advance. That is why for several years we have had the "New government quarter" project

tried out different solutions. And because we have been early, a pilot and obtained accurate figures on consumption, savings, the environment and working hours, we can now go in with clear recommendations

Editor's note: We mention some of the solutions that DSS has tested, and which are partly unknown on the Norwegian market, in a separate watch.

Gives a new everyday life

"New government quarter" project



Sustainability in practice

Many of the facility solutions that will characterize the new government quarter are barely on the market at the time of writing.

Should one deliver good services where that is not always sufficient to make do with what there is on markets. The ministries' security and service organization (DSS) has long worked together with manufacturers and suppliers, both to come up with new solutions. Paulo Ruvina, who heads the section Clean team and Environment, explains:

We work with many solutions that can give us both financial savings and a reduced burden on environment and employees.

Big buildings and many users It is often in interaction between the facility services that the gains can be harvested. Not least when it comes down to it

waste management. Bjarte Nygård, who heads the Section for facility services, puts it this way:

– The cooperation between our services means that we get to extract many synergies. An important point is that you have to open your eyes and look at gains beyond the individual service. This goes both ways, there are a lot of win-win situations, states Bjarte Nygård.

Social sustainability DSS delivers many

joint services for all ministries and the Prime Minister's office. And notices increasing competition for qualified employees.

– Then it becomes extra important to keep the employees you have. The measures we work with help, among other things, to raise professional pride and reduce workload for our employees, says Ruvina.

Should rise in the market Two of the products we will discuss various later in the article, is Lesseau and



The new government quarter will have a number of sustainable solutions. (Illustration: Statsbygg / Team Urbis / Nordic Office of Architecture)



There has been less food spillage after the canteen got more solid food containers. Thirachon Duanyai notices that the robots contain less food than before. (Photo: Paulo Ruvina, DSS)

Pants. The first challenges producers of liquid hand soap, the second the use of disposable food boxes.

- The players who have traditionally dominated the industry are so large that they dictate development, believes Bjarte Nygård.
- Until now, the market's only offer in the area has been to make increasingly environmentally friendly disposable containers. That in itself is positive, but with Pantus we are taking it an important step further. We eliminate the need for disposable containers completely, he says.

 **TROND ERIK HILLESTAD**
trond@askmedis.no



- We will all have to pay more and more for waste. It is important not only to sort at source, but to reduce the quantity, says Bjarte Nygård in DSS. Here at Pantus, which annually saves close to 90,000 disposable food containers - in one canteen.

Cuts sharply in the canteen

One of the canteens in the government quarter was a major consumer of disposable containers for food. Development of a separate mortgage solution cuts the usage completely.

I the large canteen in the building gikk det med rundt 90 000 R5 disposable containers a year. This was the biggest "contributor" to filling up residual waste in the sorting stations, says Bjarte Nygård. DSS had already introduced compacting residual waste containers in the office areas. This reduced the collection frequency and created an incentive to work further with waste minimisation. Getting rid of single-use containers from the canteen would contribute greatly to reducing the collection frequency further.

Good cooperation
DSS contacted the company

GRIN AS, which has developed panreautomat med tilhørende a software.

- Furthermore, we brought in our canteen operator Compass Group, and got a depositable disposable container for takeaway in place. You pay NOK 80 to get it out, which you get back when you hand it in to the large waste container. -

We started with Pantus in March 2023. This was something people were ready for. Overnight we got rid of all this waste, he says.

Reusing the new containers

The new food containers are made of hard plastic and can be reused many times. Exactly how many remains to be gained from experience. Although the containers can be reused, they must be phased out eventually. DSS has no plans to let them go to heat recovery:
- Part 2 is to find a supplier who will melt them down into new food containers. If we manage to do that, we achieve complete circuit closure.

No "food" in the cleaning robot Some environmental measures provide benefits areas that DSS had not fully envisaged. Paulo Ruvina elaborates: Pantus also provides benefits for cleaning. The new marbling containers have much better lids than the old disposable containers. It results in less food spillage in the canteen, and we experience that there is much less "food residue" in the robot that cleans the canteen area, he says.



The food container is inserted into the Pantus. It can later be washed and reused.

Back to... the bar of soap

Liquid soap is something close to a standard in public toilets in Norway. DSS is piloting an old solution in a new guise.

— **Lessau**, which is English and French for "less water", is a soap dispenser with "hard" soap the size of a small puck. They smell good and give a different feeling than other liquid soaps. The soap dispenser is contactless, says Paulo Ruvina.

- One puck corresponds to 350 hand washes. Two go in the container, which then gives 700 washes.

He shows how it works by

putting two "pucks" into a dispenser with a touch sensor. When you want to wash your hands, you moisten them in water and put your hands under the dispenser. A rotating knife inside the dispenser grinds off some soap powder, which falls into the hands.

Big environmental benefits

- Liquid hand soap contains around 70 per cent water. A traditional dispenser is large, perhaps 30 cm high. The Lesseau dispenser is much smaller.

In addition, we get a pure environmental saving of 15 20 plastic bottles per dispenser per year. Another benefit is that when it's time to change a bottle of liquid soap, there is often soap left, which just goes to waste. With Lessau we avoid this.

Furthermore, the solution provides major savings for transport and logistics, as the volume of 'the same amount of soap is considerably lower.

Big seller?

Lesseau has been on probation at DSS for over half a year. According to the Dutch manufacturer, the solution results in zero plastic waste and 95 percent less water consumption than

liquid soap.

Lesseau could turn out to be a big hitter. The product had not yet been marketed when I visited DSS, but was launched in Norway a week later in connection with the CleanPilot conference. Importer BOSS Europe can report great interest, with a total of 24 organizations requesting offers for the product.



One bar of soap from "Lesseau" is enough for 350 hand washes. When using, the dispenser sprinkles a little soap powder into your hands.



Paulo Ruvina
co-workers
try one out
prototype based on
the waste container
Urbanus from Røros.
This compresses
hand drying paper
mechanically.

Down to 0 plastic bags

A new waste compactor removes the need for plastic waste bags.

DSS was early on in piloting the paper compactor from Compax Solutions. Another solution, Urbanus from Røros Produkter, is currently being tested. This has a container of approx. 45 liters and compresses mechanically, i.e. it physically compresses hand drying paper.

- We test both Urbanus and Compax for hand drying paper. Both have sensors that notify the cleaner when emptying is needed. This helps to reduce the stress level of the cleaners, DSS learns.

- In addition to reducing pick-up frequency, which in itself provides gains with respect for ergonomics, efficiency and better services, with Urbanus we can eliminate the use of plastic bags. A reusable bag replaces the need for plastic bags. Emptying frequency has been reduced by 70-80 per cent.

- In one of the buildings of approx. 37,000 square meters of cleaning area, we can cut 25,000 plastic bags over the course of one year. This saves a lot of logistics and storage space.

paper dispensers

- Over a whole week, this means that the cleaner does not have to go back and forth with lots of paper on the trolley, open the dispenser, put it in, and so on. Then we are talking more efficient use of time and better ergonomics!

- The paper is also compressed, so that one package corresponds to three normal packages. This also means that the cleaner needs less paper on the trolley. At the same time, we again see gains with respect to

logistics, as the volume is also reduced here, says Bjarre Nygård, who is responsible for logistics and goods receipt.

- The cleaners say that it emits less dust, and we have learned that used hand drying paper can be compressed more than the paper we used before.

The measure thus contributes to further reducing the collection frequency of hand toilet paper.



Thirachon Duanyai changes paper in a Tork PeakServe dispenser. Two black soap dispensers from Lesseau can be seen in the background. (Photo: Paulo Ruvina, DSS)

DSS has its own laundry and several smart solutions are used here.

Microplastics: Mimbox from Swedish Mimhly is a solution that collects microplastics from the machine and reduces water consumption.

- The box is connected to a mop washing machine and recycles around 70 per cent of the water and captures additional microplastics. In addition, it reduces the energy consumption associated with heating water, explains Paulo Ruvina.

- For the cleaners, this helps to give increased pride. They feel that they are part of something, and that they are helping to develop new and environmentally friendly solutions. So there will be gains in all directions.

In addition, the cleaners in DSS have now adopted battery vacuum cleaners (Dyson V12 and Dyson Omniclick), which replace parts of traditional mop cleaning.

- We have thus reduced the number of mop washes by 30% to 50%. Another great environmental benefit, says Ruvina!

Stabilized ozone water: Tersano

has already been on the markets for a while with its device

that makes stabilized ozone water. It works so that cold water from the tap enters the unit.

As the treated water moves through the "smart" dispenser, sensors monitor the systems to ensure that the water has been infused with the correct amount of ozone.

Once the water has been treated, it can be used for cleaning up to

6 days, and as a disinfectant for 1 day. DSS has Tersano in all its buildings. It reduces the use of chemicals and thus results in less toxic substances in waste water as well as a reduction in logistics needs and waste quantities.



Tersano makes stabilized ozone water (SAO). This means that you can reduce the amount of chemistry.

Overview of hand towel paper

Compressing waste containers offer the opportunity to help close the cycle for hand towel paper.

DSS collaborates with Essity and Norsk Gjenvinning to send the hand drying paper back to the factory in Sweden.

- If you read information from Essity about Tork Paper-Circle, it is not just written about all the gains. It actually also says that there will be more work for cleaners, says Paulo Ruvina.

- For example, the cleaners have to go down to a central compactor in the goods reception with the paper towels. This means that cleaners have to spend more time. Seen in isolation, this is good for the environment, but not efficient for the use of time.

Using waste compactors in the toilets also solves this challenge, because the collection frequency at the toilets is greatly reduced.

Gives a much better sorting rate

Around 4-5,000 people work in the buildings to which DSS provides cleaning services. Bjarte Nygård states that huge amounts of paper towels go through in the course of a year.

- Tons. This goes in most places as residual waste. With compactors, we also achieve a higher degree of sorting, help to close the cycle and achieve a more circular economy.

Three types of sustainability

According to Nygård, the global demand for many products does not match the supply.

- This causes prices to rise. Like the prices of paper, which have risen dramatically. How should we handle this in the future?

He leaves the question hanging in the air. Recycling of hand- however, tissue paper can be a good contribution that ensures access to raw material to produce new paper.

- It's about sustainability and the environment really starting to pay off, he says.

Want bigger

When the new government quarter is finished, DSS wants to use larger dispensers for hand towel paper. From refilling each dispenser daily, they hope to reduce to an average of every 6 days.

- V has tested and adopted dispensers of the Tork PeakServe type in many of our existing buildings. A concrete example: Where a cleaner refilled hand towel paper 120 times a week, is now only needed for approx. 20, says Paulo Ruvina.

Saving in the laundry



DSS has its own laundry for mops and cloths. Paulo Ruvina shows Mimbox, a solution that collects microplastics before the waste water goes down the drain.