



Drones and data push the Port of Esbjerg in a new direction

This week, the Port of Esbjerg is launching a new project with drones tasked with collecting data about the port with a view to improving its operations. While collecting data in and of itself is a new development at the port, the real change lies in the influence that data will have on the organisation. "It requires a change in mentality," said Jesper Bank, Sales Director at the Port of Esbjerg.

By Louise Vogdrup-Schmidt, Tech Management

"For a year now, the Port of Esbjerg has tested the use of drones from the supplier Lorenz Technology at the port via an arrangement with G4S. This week, testing turns into practice when the port begins harvesting a stream of data from the drones. They can influence every aspect of the port operations" said Jesper Bank, Sales Director at the Port of Esbjerg in an interview with Tech Management.

Why have you started using drone technology at the port?

"We had some revelations, both big and small, in connection with a dialogue we had with Copenhagen Business School

18 months ago. We got an insight into the fact that data will only become more important and valuable, and we gained an understanding of the nature of data and its potential uses. At the same time, we here at the port have been introduced to the first 100 drones capable of flyovers of the port. As this coincided with the idea of utilising data, we began to see a purpose for drones at the port."

Why did you choose Lorenz Technology?

"Firstly, we chose Lorenz Technology as our drone supplier because they have a collaboration with G4S, who handle

a wide range of responsibilities at the port. Secondly, they understood immediately that we are from the port industry, where we believe in plain speaking. We told them quite simply that unless they can deliver a drone that's capable of carrying out surveillance 90% of the time all day long in conditions such as rain, wind, salt spray and cold, we're not interested. Eight months passed until they showed up at our door again. They're really talented tech geeks who understand what our work entails."

What has been the size of your investment?



Jesper Bank, Sales Director at the Port of Esbjerg / Illustration: The Port of Esbjerg

"We've had development costs somewhere between DKK 100,000 and 150,000 for workshops, meetings and other things."

What will be the running costs for the drone surveillance?

"The cost will be an expansion of our agreement with G4S. I'm not inclined to put a figure on it here and now, but it'll be a reasonable cost with a fixed hourly price. Especially because a total of 15 companies at the Port of Esbjerg will start using the same technology, which means that we'll be joining efforts in relation to some of the data that will be registered."

What is the concrete setup for using the drones?

"The drones have two tasks: Area surveillance and quay optimisation. We have a great many areas that are leased out for very short timeframes, such as hours or weeks. Instead of having a guy inspecting the location and driving around a car, we now have a flyover that registers the areas and changes to them. That gives me documentation for my invoice or my agreement with the customer. And that's where we come back to the data aspect. In a sense, it doesn't matter how you obtain data; the important thing is utilising it. The drones can also register waste and refuse. For instance, if someone drops something in the water we'll have documentation if we need to send an invoice for cleanup costs.

The quay inspection task is important, but also more complicated because we

are incorporating artificial intelligence into the operation. The drones are able to identify deviations during their flyovers. If a rope or buoy is out of place or the quay has been damaged in some way, we have the opportunity to document with absolute certainty that we have done flyovers of our quay every month."

What kind of savings are you expecting?

"It's too soon for us to discuss the exact financial savings. That said, it's clear that this can result in major benefits if instead of having two days of sailing to inspect a quay, we can manage with monthly drone flyovers.

At the same time, it's also a brave new world for us, and I don't believe at all that we have fully understood yet the extent to which we can utilise this data and technology. It's not just an Excel sheet exercise, but also a mental one, where we're looking into how we can use technology and how it can transform the entire organisation. That requires a change in mentality. Some of the tools we use today, all the way down to pens and rulers or PCs and electronic cards, could turn out to be redundant in the near future. That means that all our experience and training will be challenged, which is why working with innovation and digitisation is psychologically difficult at all levels of the organisation.

We have to find new ways to make use of our experience and training. I reckon that keywords such as curiosity, adaptability, an open mind and interest in taking on

new responsibilities will be the skills we need to focus on.

I can draw a parallel to this with the fact that I, personally, have completely stopped using paper in my job. That has more implications than simply not printing things out, of course; it's changed the entire way I work and communicate with others."

When did you start using the drone technology?

"We began testing the use of drones a year ago, after using visual surveillance for many years. We have worked with 'flat' data collection, where we just archived footage. Now, the next step is to use data from drones, and this week we're putting the drones in continuous operation at the port."

What concerns did you have before you began working with drones?

"There were two concerns, which I still have. The first is whether we can really understand the technology and understand whether it's going in the right direction. We and our sub-suppliers aren't geared to figure that out. So our concern lies in the fact that you have to try to really gain an understanding of it. Otherwise it can get a negative and sceptical reception because people don't understand how and why the technology is being used.

The other concern is organisational in nature. There's a mental transformation underway not just for the business, but everyone working in it. How can we implement new technology in an organisation with older employees who don't even have a Facebook profile as well as young employees who aren't remotely interested in having a Facebook profile because they've moved on to other media?"

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