



## An observable solution on the bottom line figures

**National Oilwell Varco Denmark has upgraded one of their operating systems through an advanced solution from DI-Teknik. This can get a direct impact on business efficiency and revenue opportunities.**

A solution that seems to have a direct impact on the bottom line profitability. It is, all things being equal, the optimal performance when a supplier is selected to solve a given task for a business. And this is true for the production company National Oilwell Varco Denmark (formerly NKT Flexibles) who has had their operating system upgraded on one of their plants. National Oilwell Varco Denmark develops and manufactures flexible pipes for use in the offshore industry for extraction of oil and gas. Previously, parts of production output were controlled by an older operating system based on three PLCs and DC motors of an earlier date. And it led to a number of challenges, says Rune Wissing, Project manager for IT and automation at National Oilwell Varco Denmark.

“We had a challenge of managing the increases in the pipes, and in addition we have not been able to get support for the operating system or obtain replacement parts for it. Every time something broke down, we had to go on eBay to find second-hand components. The entire machine has in fact been “death-sentenced” several times, but since it mechanically fails on practically nothing, we chose to upgrade the controller” he explains.

“There is very high probability that this will influence directly on the bottom figure line, when production no longer must standstill for days or weeks, while we find the necessary bits and parts. In the future, we can call Siemens and order the missing component or find it on our spare parts stock, and be productive again after half an hour,” adds Rune Wissing.

### Great need for flexibility

National Oilwell Varco Denmark has replaced both the control unit, the process-PLC, the safety PLC and drives with new Siemens products, just as the whole plant is now operated by new AC motors. And the benefits go far beyond the availability

of spare parts. The upgrade is part of a desire to make the operating systems on the company's production in Kalundborg and a new factory in Brazil identical with several major synergies as a result. However, this issue was first apparent after DI-Teknik had started to design the control system for production in Kalundborg, and therefore there was a need to make many changes along the way.> The major project to link Kalundborg with the new site in Brazil constantly influenced DI-Teknik's work, so a need for a high degree of flexibility on their part were certainly needed. It has been one of the major advantages of the cooperation, that they have really been effective in handling the many ongoing changes. To my experience, not everyone is, "says Rune Wissing

### A three-way win-win

Besides the upgrading of management and alignment in relation to the interaction with the factory in Brazil, DI-Teknik has conducted appropriate safety analysis and risk assessment as part of the assignment, subsequently replaced all safety component. Overall the benefits are visional to National Oilwell Varco Denmark, states Rune Wissing.

"We've got a better handle on the parameter settings, in relation to the problems we had with the increases in the pipes. Previously, we had manual settings, where you had to adjust on 10 different places, to make sure that the machine was set correctly, whereas everything today is controlled from one spot only, "he says and continues: "We've also got versioned log at the plants now, so we can identify who adjusts the system. It has previously been somewhat of a challenge, because we produce 24 hours a day, 365 a year, and when such changes have been made during the night, it could be challenging the following morning to find out who knows, and has done what and why. This issue is completely eliminated now,"he says.

### Satisfied operators generate growth

Additionally, Rune Wissing notes, that DI-Teknik late in the process has proven to be able to comply with a number of requests for adjustments from the operators. Yet a condition he expects will have a positive impact on the bottom line profitability.

" It is important that the operators feel comfortable with operating the machines and experience being consulted in the

process. It is also a matter which has an apparent effect on the efficiency, although it is difficult to measure, "he says.

### Performance and know-how

Project Manager at DI-Teknik Ricky Hoffmann, sees the solution at National Oilwell Varco Denmark as an excellent example, of DI-Teknik's versatility and ability to solve all the tasks associated with a certain project. And he emphasizes the advantages associated with operating with only one supplier.> Some of our competitors have know-how in areas such as construction and software, but must hire others to perform the work. Our strength is that we provide everything from risk management descriptions, just as we construct, program and perform the solution. It creates optimal project flow, and a more coherent solution, and ultimately affect the price and overall quality,"he states.



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