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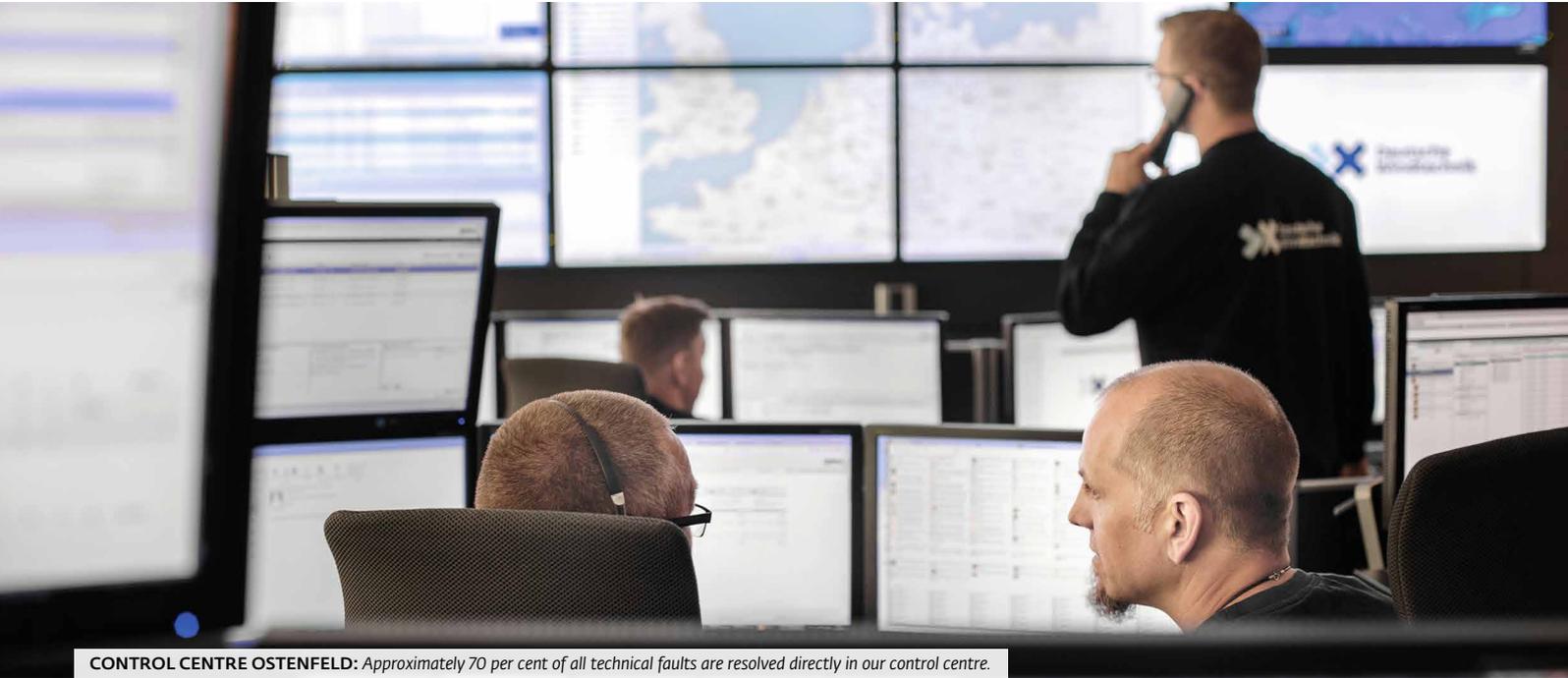
Newsletter Deutsche Windtechnik

Software solutions

Offshore control centre

Inspection body

Demolition of old turbines



CONTROL CENTRE OSTENFELD: Approximately 70 per cent of all technical faults are resolved directly in our control centre.

KEEPING AN EYE ON THE BIG PICTURE

SOFTWARE LANDSCAPES BETWEEN VISION, DESIRE AND REALITY

Software solutions make our work easier, enable fast communication, are very intelligent, save resources, create transparency and are simply indispensable. But, as is often the case, there are two sides to this coin: the larger a company grows, the less manageable its software environment becomes.

In the day-to-day business of the service industry, software supports monitoring, reporting, analysis and much more. Challenges that smaller companies can sometimes solve in unconventional ways often turn out to be real problems for larger companies. The large number of different tasks as well as the increasing expertise needed to perform them requires an equally large number of individual, and often unconnected software solutions. Important information can sometimes be lost or must be created by the employees themselves, which eats into valuable working time and increases the risk of error.

A SWISS ARMY KNIFE?

At least in theory, an all-in-one solution seems ideal: software that can do it all. In practice, however, individual modules have proven to be much faster and more agile. The requirements that individual departments place on IT are simply too diverse. New applications often have to be integrated into the existing system.

“The decisive factor is the compatibility of the systems with each other”

LONG-TERM USE OF ESB TECHNOLOGY

Every company has to find a way to deal with these developments in a way that increases its competitiveness. For Klaas Feldmann, Head of IT at Deutsche Windtechnik, the only medium-term solution is to deal with the situation at a micro level, i.e. to continue using small-scale software solutions. “It is important to optimise the interfaces between the

LATEST NEWS

ON COURSE: INTERNAL TRAINING ON DEMAND

Employees of Deutsche Windtechnik can now study more than 20 e-learning modules in the areas of technology / wind turbine components, QHSE and languages as well as project-related courses and general requirements according to their needs and interests – completely independently of deployment planning, weather, time and location. The multimedia modules are developed and maintained by our own online trainers, who combine theory and practice in the best way possible. When a course is completed, certificates are generated automatically and can be requested by the colleagues at the back office as required.

UK: MAINTENANCE CONTRACT FOR SIX NEW WIND FARMS SIGNED

The demand for alternatives to maintenance by the manufacturer is also increasing in the UK. Last year alone, Deutsche Windtechnik Ltd. tripled the number of turbines in its care to 365 systems. A major part of this was a new service contract with Ventient Energy for six wind farms in Wales, which comprise a total of 165 turbines. This growth made it necessary to bring 20 new employees on board in the UK.

INTERVIEW

EDITORIAL

AN IPO POWERED BY INTELLIGENT CONTROL CENTRE TECHNOLOGY

OFFSHORE WIND FARM MANAGEMENT BY OUTSMART



Dear friends of wind energy,

It's always good to have an alternative! The expression "there is no alternative" has been used frequently in politics in the past. Currently, it seems to be coming back like a boomerang. In almost all areas of life there are examples that show that simply having alternatives can lead to significant improvements. They foster competition that motivates, inspires new ideas, creates comparability and much more. In the area of service for wind turbines, these effects have been visible for years: falling prices, increasing transparency, new concepts, innovation, higher speeds, progressive digitisation and so on. However, there is still a lot of work to be done.

In our view, a company should always have at least two external alternatives. This is a strong argument for independent service, in addition to OEM / manufacturer service. It gives our clients greater scope for decision making in managing and organising their own businesses and assets. Real added value is the goal. We are happy to talk to you about this.

We hope you enjoy reading!

Matthias Brandt
Board Director at Deutsche Windtechnik



ROLAND STRACHE,
provides consultation
services for operators
in the area of electricity
trading

Offshore control centres are often pioneers for innovations, and not only from a digital point of view. Roland Strache, Operations Manager Offshore at the control centre of Deutsche Windtechnik's subsidiary OutSmart B.V., provides insights into the independent control centre for the offshore wind farms Butendiek, Gemini, Nordergründe and Trianel Windpark Borkum.

Why did OutSmart choose Emden as the location for its control centre?

The control centre is located directly at the Emden airfield, which is the take-off and landing site for helicopter operations for almost all North Sea wind farms. This puts us very close to the service teams and helicopter companies and significantly increases the effectiveness of our cooperation.

What distinguishes the offshore control centre from the one for onshore operations?

We are not just the control centre, we are also responsible for maritime and flight coordination and track all personnel movements at the offshore wind farms. In the summer months, this adds up to 50 or more people per wind farm every day. We are fully equipped to use maritime, aeronautical and digital radio communication channels. In order to remain operational at all times, we have redundant communication links and an emergency power supply. One thing is extremely important: the technical monitoring of turbines and substations is carried out in real time, i.e. as it happens.

Which software is used for live transmission?

In order for the data to be delivered every second, our top-level SCADA system has a range of interfaces to the technical equipment of the turbines and substations.

“Forecasts for economical electricity trading”

These fulfil the requirements of the European industry standard. The system collects, analyses and visualises the operating data. Alarms and irregularities trigger alerts in real time.

How does OutSmart support Dutch operators in power marketing?

The predictability of power generation capacity and availability is gaining more and more importance internationally. The technical requirements for this are currently being advanced in the offshore wind industry. Using our top-level SCADA, we provide electricity marketers and other market participants with forecasts that enable them to trade power more efficiently on the electricity exchange.

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individual systems by bundling the information in the Enterprise Service Bus ESB," he said. "The ESB interface is so intelligent that it actually only provides users with the data they need. The information is displayed to the user via an interface while the background processes continue to run autonomously. The decisive factor is the compatibility of the individual systems with the ESB. Our long-term goal is to do it this way!" Service technicians are already able to use an app that integrates core applications. The various parties involved, such as the control centre or

the client, are provided with valuable information in real time.

SOFTWARE OFFSHORE CONTROL CENTRE

The Deutsche Windtechnik subsidiary OutSmart also operates similarly in the area of offshore wind farm management. The basic functions of the turbines are monitored and controlled via the control centre's software interfaces. The ECDIS (Electronic Chart Display and Information System) also displays ships and helicopters in and around the wind

farm. A sophisticated 'permit to work' system is used to plan and follow up on work tasks as well as to ensure the certificate situation. Deeper access to the system for subsequent tasks depends solely on the user rights in the interface (also see the above interview).

At the end of the day, a 'Swiss army knife' solution still seems to be a long way off. For the time being, every company will have to find the best way forward for itself and that best way forward will remain a topic of lively discussion.

EXPERT APPRAISALS

RECOGNISED AS AN INDEPENDENT INSPECTION BODY

Deutsche Windtechnik's expert appraisal department was one of the first providers in the wind industry to receive the globally recognised award for an independent inspection body in accordance with DIN EN ISO/IEC 17020.

With this certificate, Deutsche Akkreditierungsstelle GmbH (DAkkS) confirms that Deutsche Windtechnik not only possesses the necessary objectivity, but also that its employees have the high level of expertise required to prepare expert appraisals as part of technical inspections of wind turbines. The accreditation is a legally binding obligation to maintain full transparency when conducting expert appraisals, and this

gives the customer a high degree of security. Selecting experts becomes easier because recognition as an inspection body is ensured.

"Only a few companies have been awarded this distinction to date. For the expert appraisal department, confirmation of independence through operational proximity to other departments is enormously important. In the past, we needed to convince others of our expertise in some situations. Now, they simply trust us," explained Holger Pasch, Head of Survey and Inspection Body. "However, accreditation has had no impact on our processes or our philosophy, as our skills and independence have always been an integral part of our daily work."

PERSONNEL

STRENGTHENING COOPERATION IN EUROPE

In October, Christian Winkenjohann left Senvion GmbH to join Deutsche Windtechnik. As a business developer, one of his most important responsibilities is to provide an interface to the Spanish and Dutch subsidiaries



CHRISTIAN WINKENJOHANN, brings a wealth of experience to our international business

and shape the customer contact there decisively. The former professional kitesurfer laid the cornerstone of his career in wind energy by completing a training programme as a mechatronics engineer at Senvion. He acquired fundamental strategic skills in the courses Renewable Energies and General Management.

DEUTSCHE WINDTECHNIK CELEBRATES 1,000TH EMPLOYEE



AT THE BEGINNING OF 2018, DEUTSCHE WINDTECHNIK BROKE THE 1,000-EMPLOYEE BARRIER: Service technician Lutz Paschelke and his colleague Alexander Lass were surprised by Board Director Matthias Brandt and Sarah Pirk (Corporate Communications) at their deployment location. "We are happy to have each and every one of our employees. All of them perform their daily work with enthusiasm and dedication. We'll welcome the 2,000th when the weather is a bit warmer!" joked Matthias Brandt.

PARTNERS

NW ASSEKURANZ: ENTERING THE WORLD OF WIND ENERGY TOGETHER FROM THE NORTH

In order to assess and protect against risks properly, it is important to have the right partner by your side. Deutsche Windtechnik has been working together with Nordwest Assekuranzmakler GmbH & Co. KG (NW Assekuranz), a well-known insurance broker in the wind sector, in risk and insurance management for a number of years. The fact that both companies have their headquarters in Bremen is a pleasant coincidence.

"Every insurance principle is based on a strong collective approach. Technical expertise, market knowledge, understanding of contracts and our business model are essential. Another prerequisite is our interdisciplinary approach. NW Assekuranz offers us all that and more. It enables us to provide our numerous services to clients together with the insurance infrastructure that is required in specific situations or desired by the client," said Matthias Brandt, Board Director of Deutsche Windtechnik. Thomas Haukje, Managing Partner at NW Assekuranz, also emphasised: "A true partnership is never a one-way street. Together, we develop many ideas and solutions that benefit the whole industry, onshore as well as offshore!"

SECOND GLANCE

BOOSTING EXPERTISE AND MORALE AT THE SAME TIME

Kieran Brazzil has been working as an engineer for 15 years, more than half of which in renewable energy. Two years ago, he joined Deutsche Windtechnik Ltd. as a Training Manager and Wind Turbine Safety Rules Authorisation Officer.

What led to you becoming a Training Manager?

I joined Siemens in 2009 as an authorised technician in Scotland. During that time, I learned about wind farm operation with a focus on the technical side of the job. In 2014, I was promoted to Senior Technical Trainer at the Siemens Training Centre, where I learned that training not only improves knowledge and skills, but also boosts morale and can bolster attitudes.

What are your responsibilities at Deutsche Windtechnik?

My job is to ensure that our employees have the necessary skills for their positions by receiving corresponding training. The training we supply in the UK is under continuous development. The UK team will benefit from

the fantastic new facilities at Deutsche Windtechnik's Training Center in Viöl. The first training session I will be running there is



KIERAN BRAZZIL, imparts not only knowledge about technology but also important values.

for technicians to become Authorised Technicians. This will be followed next month by technical training for non-technical staff. I hope that this will lead to a better understanding of the operation of wind turbines and increase health and safety in the daily operation of wind farms. I am convinced that Deutsche Windtechnik will offer a higher standard of training in the future than some manufacturers.

REPOWERING

QUALIFIED DEMOLITION OF OLD SYSTEMS SAVES COSTS

If turbines cannot be sold in one piece or as individual parts due to their age or condition, then demolition offers a cost-effective alternative. It can be performed with all turbine types and tower versions. The costs depend significantly on the effort required for preparation and renaturation. In the case of old turbines that cannot be sold, demolition is always more cost-effective than dismantling, provided the system has a hub height of at least 70 metres. The avoided crane costs, which rise exponentially with the hub height, make up the main

savings. Deutsche Windtechnik guarantees qualified preparation, including permits, and takes over further tasks in the process chain for the client, such as carrying out the actual demolition and disposing of the destroyed materials. Only professional planning can prevent damage to nearby objects, keep the renaturation costs low and ensure the safety of persons in the area.

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DISCLAIMER

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ON THE RADAR

ALL ENERGY

2-3 MAY 2018 | GLASGOW
all-energy.co.uk

AWEA WINDPOWER 2018 CONFERENCE & EXHIBITION

7-10 MAY 2018 | CHICAGO, USA
windpowerepo.org

WINDFORCE CONFERENCE

15-17 MAY 2018 | BREMERHAVEN
windforce.info/windforce2018

WINDKRAFT SERVICE INSTANDHALTUNG BETRIEB

16-17 MAY 2018 | HAMBURG
bwe-seminare.de/veranstaltungen

16TH WINDMESSE SYMPOSIUM

29 MAY 2018 | HAMBURG
w3.windmesse.de/intern/symposium

SPOTLIGHT

STAYING FOCUSED: AN ENDOSCOPY CAMPAIGN WITH A NEW DIMENSION

This job promises to be exciting and challenging at the same time: 800 endoscopic inspections on gearboxes of offshore wind turbines! The scale of the project, the tight deadlines set by warranty periods and the unpredictable weather windows place great demands on project management. In addition, the project extends beyond national borders: our teams will be deployed in Germany, the UK and Denmark.

But it's a familiar story: in theory, the concept is good, but when it comes to putting it into practice, obstacles become apparent. Country-specific training and QHSE requirements, a structurally challenging gearbox and cultural differences have presented tough challenges for all parties involved – internal as well as external – during the start-up phase of the project.

But it would not be a partnership if the client and we, Deutsche Windtechnik, could not find common ground. Even closer communication between the parties involved, readjusted processes in project execution and personal communication at management level on a regular basis are all essential to the success of the project. We are well on our way, and we have a common goal for 2018.