

*SKF Wind Farm Management Conference, 6-7 May 2015
Amsterdam, the Netherlands*

Taking operation and maintenance to the next level



SKF

Welcome!

Dear Friends of Wind Energy,

Welcome to Amsterdam and the 10th annual SKF Wind Farm Management Conference.

It all started here in the Netherlands. We realized that the wind industry community was lacking an event specifically dedicated to operations & maintenance of wind farms. We wanted to create something that focused on sharing experiences and knowledge to support the overall target to develop the efficiency and energy output on wind farms.

The first SKF Wind Farm Management Conference took place in 2006 in the Netherlands, at the SKF European Research Center, Nieuwegein.

During these 10 years we have been driving the conference in close cooperation with brilliant competences from our different members of the program committees. We have gradually shared and acquired new knowledge on best practice for managing wind farms, made new contacts with colleagues from different functions and geographic locations and learned from each other's experiences.

Having coordinated the conference in different markets around Europe over the last few years, and even starting up a national China Wind Farm Management Conference, we are now back in the Netherlands for our 10th SKF Wind Farm Management Conference.

The program committee this year, representing DONG Energy, Availon, Vattenfall and ZF Wind Power Services, as well as SKF, has agreed on "Taking Operation and Maintenance to the next level" as the overall theme for this year's event. Our shared wish is that you acquire knowledge and are inspired by the presentations, panel debates and breakout discussions, as well as interchanging experiences with new contacts during the event. You will hopefully conclude the conference with new inputs and knowledge, to facilitate your work in bringing your O&M activities to a higher professional level.

Christina Aabo,
DONG Energy

Erik Hiensch,
Vattenfall Wind Power

Michael Richter,
Availon

Jeroen Kossen,
Kossen Energy Consulting

Stefan Karlsson,
SKF

Hannes Leopoldseder,
SKF

Philipp Schmid,
SKF

* Breakout sessions

Site optimization

Reliability centered maintenance

Blade maintenance

Gearbox lubrication

Gearbox refurbishment and upgrade

CMS beyond vibration monitoring

End of warranty: roles and responsibilities

Offshore O&M challenges, tough learning to be shared

Human factor in wind farm O&M

Maintenance Strategies: learning and best practice

Wind turbine life time extension

Wind turbine upgrades

Spare parts management on older turbines

Conference programme

Wednesday 6, May 2015

- 7.30–9.00 Registration at hospitality desk and coffee
- 9.00–9.05 Opening
Stefan Karlsson
Head of Marketing & Strategic Development, SKF
- 9.05–9.20 Welcome note
Laurent Vanhoudenhove
Sales unit Manager RSS Benelux, SKF
- 9.20–9.50 Key note speech
Martin Reinholdsson
Head of BU Generation Wind at Vattenfall BD Production
- Sharing knowledge on best practice**
- 9.50–9.55 Intro
Stefan Karlsson
Head of Marketing & Strategic Development, SKF
- 9.55–10.15 Asset life optimization,
Ruben Ruiz de Gordejuela
CTO, Nabla Wind Power
- 10.15–10.35 Reliability Centered Maintenance
Gilberto Serrano
Maintenance Engineering Service and Training Manager, SKF
- 10.35–10.55 Leading edge protection
Michael Drachmann Haag
Lead Engineer, Materials Qualification & Technology
LM Wind Power Blades
- 10.55–11.00 Practical info break-out sessions
- 11.00–11.30 Coffee break and networking
- 11.30–12.30 **Greasy hands – breakout sessions***
- 12.30–13.30 Lunch
- Maintenance Strategies – OES, ISP, In house – pros and cons**
- 13.30–13.35 Intro
Stefan Karlsson
Head of Marketing & Strategic Development, SKF
- 13.35–13.45 OES perspective
Carlos Correia
South Europe & LATAM Operations Director, Vestas
- 13.45–13.55 The Role of ISPs in the O&M Market
Michael Richter
Manager Global Sales, Availon
- 13.55–14.05 Maintenance strategy and future perspective of a wind farm owner
Ceferino Viescas Fernández
O&M Director EDPR
- 14.05–14.25 **Panel debate – Maintenance Strategies**
Roland Flaig
Onshore Wind – Head of EU North, E.ON Climate & Renewables
- 14.25–14.45 End of warranty; learning and experiences
Strange Skriver
Chief Technical Consultant, Danish wind owner association
- 14.45–15.05 Human factor in wind farm maintenance
Carsten Lind Andersen
CEO, Danish Wind Power Academy
- 15.05–16.05 **Maintenance Strategies – breakout sessions***
- 16.05–16.50 Coffee break and networking
- Industry Collaboration**
- 16.50–17.05 Working for a safer work environment (GWO concept)
Claus Rose
Division EHS Officer, Wind Power & Renewables, Siemens AG
- 17.05–17.20 Simulation and Optimization of Maintenance Strategies
Magnus Andersson
Sales Manager/Consultant, Systecon

- 17.20–17.35 Data sharing and benchmark
Stefan Faulstich
Reliability Analyst, Fraunhofer IWES
- 17.35–17.50 Communication networks in wind farms
Alexander Gerdes
Managing Director, Quantec Networks GmbH
- 17.50–17.55 Closing of the day
Stefan Karlsson
Head of Marketing & Strategic Development, SKF

Thursday 7, May 2015

- 8.00–8.30 Coffee and networking
- 8.30–8.35 Intro & Recap day 1
Stefan Karlsson
Head of Marketing & Strategic Development, SKF
- Aiming for the next level**
- 8.35–8.55 Life Extension – What are the next steps?
Christian Jourdain
Head of Marketing & Communication, Gamesa
- 8.55–9.15 Turbine upgrades
Torben Rønnow
Executive Vice President R&D, DEIF Wind power technology
- Access to spare parts**
- 9.15–9.20 Intro
Stefan Karlsson
Head of Marketing & Strategic Development, SKF
- 9.20–9.30 Spares in Motion – “Sharing is caring”
Marc Huyzer
Managing Director, Spares in Motion
- 9.30–9.40 SKF – Active Spare Part Management
Raf Kerkhofs
Business Development Manager, SKF
- 9.40–9.50 Connected – 2nd half spares supply
Carsten Brinck
CCO, Connected
- 9.50–10.10 **Panel debate – Access to spare parts**
Nicolaj Mensberg
Senior Manager, Head of WTG Integrity Management,
DONG Energy Wind
- 10.10–11.10 **Taking O&M to the next level – breakout sessions***
- 11.10–11.40 Coffee break and networking
- Cross regional learning to reach next level in wind O&M**
- 11.40–11.45 Intro
Stefan Karlsson
Head of Marketing & Strategic Development, SKF
- 11.45–12.05 Experiences from Indian market
Balakrishnan Gopalan Iyer
Chief Operating Officer, Bharat Light & Power India Pvt. Ltd
- 12.05–12.25 Experiences from China
Tim Feng
Post-Evaluation Senior Manager, Envision
- 12.25–12.45 Experiences from US
Justin Johnson
Director of Performance Management, EDPR US
- 12.45–13.05 **Panel debate – Cross regional learning**
Carsten Lind Andersen
CEO, Danish Wind Power Academy
- 13.05–13.15 Closing WFMC 2015 / Information 2016
Stefan Karlsson
Head of Marketing & Strategic Development, SKF
- 13.15–14.00 Lunch
- 14.00 Transfer to SKF European Research Center
(optional and only for those who registered)

Members of the programme committee:



Media partner:



Conference presentations

Wednesday 6, May 2015

Topic: [Opening by conference moderator](#)
Time: [9:00–9:05](#)
Moderator: [Stefan Karlsson](#)
[Head of Marketing & Strategic Development](#)
[SKF](#)

Topic: [Welcome note](#)
Time: [9:05–9:20](#)
Presenter: [Laurent Vanhoudenhove](#)
[Sales unit Manager RSS Benelux, SKF](#)

Topic: [Key note speech](#)
Time: [9:20–9:50](#)
Presenter: [Martin Reinholdsson](#)
[Head of BU Generation Wind](#)
[Vattenfall BD Production](#)

Vattenfall operations have grown five-fold in the last six years, covering five countries with 50 turbine models (on small and large wind farms). Knowledge gained from these successful operations points towards some clear takeaways in terms of strong and committed site management, common systems, understanding of risk profile and value of real competence. It however also highlights further upsides in terms of digitalization, asset management, a more European view on H&S and increased collaboration between operators. The next steps start today!

Sharing knowledge on best practice

Topic: [Asset life optimization](#)
Time: [9:50–10:15](#)
Presenter: [Ruben Ruiz de Gordejuela](#)
[CTO, NABLA WIND POWER](#)

Life Extension is one of the most relevant actions for upgrading the value of a wind asset but a full LTLMP (Long Term Life Management Plan) needs to be adapted to the particular wind farm characteristics. This is in order to provide the most sensible and cost-effective Life Extension project which optimizes project IRR (Internal Rate of Return). Causes that lead to life consumption on all relevant SSCs (Structures, Systems and Components) such as site-specific wind conditions, particular operation of the wind farm and turbine own morphology and different sensitivities to boundaries need to be addressed to provide a tailored AMP (Ageing Management Plan) for the asset. This presentation will run through the process and its difficulties, and will share several examples of Life Detection and Life Extension based on Damage Mitigation Protocols practiced on several wind farms.

Topic: [Reliability Centered Maintenance](#)
Time: [10:15–10:35](#)
Presenter: [Gilberto Serrano](#)
[Maintenance Engineering Service](#)
[and Training Manager, SKF Espanola](#)

SKF Reliability Centered Maintenance (RCM) is a process that requires less time and resources than traditional RCM programs. SKF RCM focuses on dominant failure modes and the significant effects of those failures, and then recommends actions to prevent their occurrence. In the wind industry, RCM is an optimum methodology to help wind farm operators and maintainers in the hard task to define the right maintenance task, on the right equipment, at the right time, with the right person, for the right reasons. Together with the customer, SKF consultants will identify what constitutes business-critical failures to create a focused and justified maintenance program.

Topic: [Leading edge protection](#)
Time: [10:35–10:55](#)
Presenter: [Michael Drachmann Haag](#)
[Lead Engineer, Materials Qualification & Technology, LM Wind Power Blades](#)

The condition of the leading edge surface of a wind turbine blade significantly affects the energy generation efficiency and hence the Annual Energy Production (AEP) of a wind turbine. During operation, the leading edge will be exposed to wear and tear over time, which results in blade material surface deterioration and hence increased surface roughness, which will reduce the AEP. Certain wind turbine operational and environmental conditions such as rain, hail and particle impacts can lead to leading edge blade surface erosion, if unprotected. The leading edge surface erosion increases dramatically with increased rotor speed. Controlling critical factors for experiencing leading edge erosion is essential in securing the lowest possible Cost of Ownership. This presentation will provide input, for classifying the potential risk of leading edge erosion and how to model the Total Cost of Ownership.

Maintenance Strategies

Topic: [OES perspective](#)
Time: [13:35–13:45](#)
Presenter: [Carlos Correia](#)
[South Europe & LATAM Operations Director,](#)
[Vestas](#)

Our job really begins once your wind power plant is installed and in operation. Our philosophy is that making the most of your plant is about more than just engineering and logistics. It's about working together – creating solutions that revolve around your specific needs and your expectations. That's why we offer our unique AOM programme, based on three decades of industry experience. With Vestas AOM, you are supported by a proven service partner – working in collaboration with you to identify, allocate, and properly manage risks, and ensure peak performance from your plant. Vestas is committed to the smooth running of your business – ensuring that you benefit from industry-leading performance, research, innovation, expert technical teams, and a global supply chain that is reliable, efficient and cost-effective. All of this is done with one aim in mind: to offer you predictability, and to strengthen the certainty of your business case.

Topic: [The Role of ISP in the O&M Market](#)
Time: [13:45–13:55](#)
Presenter: [Michael Richter](#)
[Manager Global Sales, Availon](#)

The service for wind energy plants is a growth market with great opportunities. Wind energy service sales will increase to eight billion Euros by 2020 in Europe and 27 billion Euros worldwide. According to this, the market share of independent service providers (ISP) will rise to about 50% year by year. The ongoing success of ISP relies on several advantages, e.g. high quality and sustainability of services, a fair pricing, 24/7 availability, and intense customer focus. As service is becoming a major business in the wind energy industry, manufacturers face more ambitious competition in ensuring their dominant market share.

Topic: [Maintenance strategy and future perspective of a windfarm owner](#)
Time: [13:55–14:05](#)
Presenter: [Ceferino Viescas Fernández](#)
[O&M Director, EDPR](#)

Today the wind energy market is reaching its mature level and required investments for producers are decreasing. A sound operation and maintenance strategy is becoming essential for a company if it wants to survive on the current market. EDPR-EU has developed its own strategy and model for optimized operation and maintenance. During the presentation, EDPR will introduce its vision and strategy, and present the results obtained during the last five years.

Topic: [Panel debate – maintenance strategies](#)
Time: [14:05–14:25](#)
Moderator: [Roland Flaig](#)
[Onshore Wind, Head of EU North](#)
[E.ON Climate & Renewables](#)

Topic: [End of Warranty, lessons learned](#)
Time: [14:25–14:45](#)
Presenter: [Strange Skriver](#)
[Chief Technical Consultant](#)
[Danish wind owner association](#)

The presentation will focus on how the end of warranty process can be planned and executed by an asset owner either in-house or with assistance from external experts. What needs to be planned already at the time of Turbine Supply Agreement (TSA), what needs to be cared for during the warranty period and what is important to do at the end of the period, before taking over from the O&M, renewing the service agreement or contracting to an ISP. The speaker will further elaborate on what he has seen as the most common technical issues on WTG during the last 3 years of work.

Topic: [Human factor in wind farm maintenance](#)
Time: [14:45–15:05](#)
Presenter: [Carsten Lind Andersen](#)
[CEO, Danish Wind Power Academy](#)

The Danish Wind Power Academy (DWPA) is the market leading independent industry-training organization focused on developing solutions that help to empower the operators of wind turbines. No other company has worked with a wider range of global players, understanding what their drivers are, what their plans are and what has and hasn't worked in this sector. This is why our programs are spoken of being the most efficient and operation targeted trainings available around the globe today. Some of the customers have even declared DWPA training to be their absolute best investment since they started operation of wind turbines.

Industry Collaboration

Topic: [Working for a safer work environment \(GWO concept\)](#)
Time: [16:50–17:05](#)
Presenter: [Claus Rose](#)
[Division EHS Officer, Wind Power & Renewables, Siemens AG](#)

GWO was created in November 2009 by manufacturers in the Wind Industry to stop unnecessary training but at the same time increase the "safety bar". Key for GWO is to support an injury free environment for industry to stay self-regulated. Key statement: "My accident is your accident". In February 2012 GWO released the first safety training standard. In 2014, GWO became a legally-founded organization with the main office in Copenhagen (DK) to support the further requests and expansions to deliver new training standards.

Topic: [Simulation and Optimization of Maintenance Strategies](#)
Time: [17:05–17:20](#)
Presenter: [Magnus Andersson](#)
[Sales Manager/Consultant, Systecon](#)

Decisions taken in the early project phases set the parameters for the whole project life. A key ingredient to good Life Cycle Management and healthy Life Cycle Economics is therefore to base the critical early phase decisions on fact based analyses. Modelling and simulation of logistic concepts and O&M strategies facilitates comparisons between different scenarios. This ensures that sound decisions can be made. It also gives the opportunity to optimize the strategies in order to maximize profitability. The presentation will describe how advanced software tools and analysis have successfully been used in projects to achieve the above.

Topic: [Data sharing and benchmark](#)
Time: [17:20–17:35](#)
Presenter: [Stefan Faulstich](#)
[Reliability Analyst, Fraunhofer IWES](#)

For the improvement of reliability of wind turbines, it is crucial that the experiences gained in the past will be used as efficiently as possible. However, even with a broad database, the breakdown in concept groups, power classes, site conditions, etc., leads to a point of insufficient statistical basis. One promising way is the establishment of the common knowledge base »Wind Energy Information Data Pool« (WinD-Pool), which will be held in trust by Fraunhofer IWES. Thus, participants can benefit from each other by sharing their experience and by benchmarking within the security of a confidentiality concept and agreement.

Topic: [Communication networks in wind farms](#)
Time: [17:35–17:50](#)
Presenter: [Alexander Gerdes](#)
[Managing Director](#)
[Quantec Networks](#)

This presentation will give an overview about the former, current and future communication infrastructure in wind farms. In the past, wind farm operators had to overcome some challenges to get data out of the WTG. New WTG today provide more or less standardized interfaces for owners and operators. However the share of renewable energies on the energy production is rising worldwide and new security mechanisms have to be implemented into existing and future communication structures. Also included is the concept of the BSI – the German Federal Bureau of IT security.

Topic: [Closing of the day](#)
Time: [17:50–17:55](#)
Moderator: [Stefan Karlsson](#)
[Head of Marketing & Strategic Development](#)
[SKF](#)

Thursday 7, May 2015

Topic: [Intro & Recap day 1](#)
Time: [8:30–8:35](#)
Moderator: [Stefan Karlsson](#)
[Head of Marketing & Strategic Development](#)
[SKF](#)

Aiming for the next level

Topic: [Life Extension – What are the next steps?](#)
Time: [8:35–8:55](#)
Presenter: [Christian Jourdain](#)
[Head of Marketing & Communication](#)
[Gamesa](#)

Today's service life of wind turbines is restricted to 20 years' service. Although manufacturers have preventive maintenance programs, no specific strategy exists to properly address aging turbines. In the US, Denmark, Germany and Spain, more than 50% of the current installed based will be over 15 years old in 2020, making life extension a real business opportunity, but also a technical challenge. Taking the lead, Gamesa has certified last year with DNV-GL its life extension program for the obsolete 660 kW turbines and initiated the same process for 850 kW and 2.0 MW platforms. We will review what the possible strategies are, how to prepare and when to start the life extension.

Topic: [Turbine upgrades](#)
Time: [8:55–9:15](#)
Presenter: [Torben Rønnow](#)
[Executive Vice President R&D](#)
[DEIF Wind power technology](#)

After around 10 years of turbine operation, the service costs often increase significantly, the availability is dropping and it becomes a nightmare to buy spare parts and meet the projected "Return of Investment". The original turbine design is typically more than 15 years old and will naturally not comply with today's requirements. To perform radical changes without having access to design documents is complicated, but DEIF has demonstrated in a number of projects that a turbine upgrade can be approved and given the necessary improved availability, performance and energy generation as well as compliance with newest grid code requirements (i.e. LVRT).

Access to spare parts

Topic: [Spares in Motion – "Sharing is caring"](#)
Time: [9:20–9:30](#)
Presenter: [Marc Huyzer](#)
[Managing Director, Spares in Motion](#)

How do online platforms play a role in easy and fast access to spare parts? How do you find and select the best supplier for your operation and situation? This brief presentation will focus on how internet solutions can help to improve and increase easy access to spare parts.

Topic: [SKF – Active Spare Part Management](#)
Time: [9:30–9:40](#)
Presenter: [Raf Kerkhofs](#)
[Business Development Manager](#)
[SKF Belgium](#)

In the wind O&M business, it is essential to have the required products on hand and a reliable logistics set-up tailored to potential needs for all wind turbine applications. In this presentation, SKF will share the experiences of their spare part program, that resulted in costs savings and productivity increases for the operators. SKF spare part management encompasses critical aspects of wind farm part procurement, from strategic inventorying and engineering upgrades to kits, time-saving logistics and wide-ranging partnership agreements.

Topic: [Connected – 2nd half spares supply](#)
Time: [9:40–9:50](#)
Presenter: [Carsten Brinck](#)
[CCO, Connected Wind Services A/S](#)

The demand and requirements of spare parts are changing over the lifetime of a turbine. With focus on yield, it is important to assess when to use new, refurbished or used spare parts. Over time, procurement and sourcing can become more and more difficult as spare parts become rare or even discontinued. It may be necessary to build up alternative sourcing channels to the OEMs such as independent e-commerce platforms, ISPs, directly at the spare part manufacturers or even to design and manufacture new parts.

Topic: [Panel debate – access to spare parts](#)
Time: [9:50–10:10](#)
Moderator: [Nicolaj Mensberg](#)
[Senior Manager, Head of WTG Integrity](#)
[Management, DONG Energy Wind Power](#)

Cross regional learning to reach next level in wind O&M

Topic: [Experiences from Indian market](#)
Time: [11:45–12:05](#)
Presenter: [Balakrishnan Gopalan Iyer](#)
[Chief Operating Officer](#)
[Bharat Light & Power India Pvt. Ltd.](#)

In this day and age, renewable space is bogged down by a huge failure rate across the industry. Statistics say, approximately 75% faults cause 5% downtime and 25% faults cause 95% of downtime. Increasing the operational efficiency is the need of the hour. The idea is to overcome these issues by leveraging advanced technologies. There is a need for industry to pro-actively rely more on performance optimization of all the operational assets rather than being reactive. In this regard, BLP has created a robust IT platform by leveraging advanced capabilities to effectively manage day to day operations of the existing fleet which is highly secure and scalable. BLP manages the entire operations through a suite of applications which include monitoring, reporting, data analytics, power forecasting, field ops etc.

Topic: [Experiences from China](#)
Time: [12:05–12:25](#)
Presenter: [Tim Feng](#)
[Post-Evaluation Senior Manager](#)
[Envision Services](#)

Case Study of EBA (Energy based Availability) analysis and improvement for a north-China wind farm. How do we evaluate the performance of a wind farm and find out the losses of production and hereby reduce all kinds of losses? The operational SCADA data of a north-China wind farm located in complex site is assessed via an index of EBA. Losses are categorized into sub-levels as WTG down-time losses, WTG outside losses, WTG performance losses. With the solutions of reducing the above three kinds of losses implemented, EBA is increased by 10% for the same wind farm in the following four months as compared with a neighbouring wind farm.

Topic: [Experiences from US](#)
Time: [12:25–12:45](#)
Presenter: [Justin Johnson](#)
[Director of Performance Management](#)
[EDPR US](#)

This presentation covers the similarities and differences between O&M practices in EU versus NA. The presentation provides case studies and lessons learned from managing a cross-regional team, as well as opportunities for collaboration between geographies.

Topic: [Panel debate – cross-regional learning](#)
Time: [12:45–13:05](#)
Moderator: [Carsten Lind Andersen](#)
[Danish Wind Power Academy](#)

Topic: [Closing WFMC 2015 / Information 2016](#)
Time: [13:05–13:15](#)
Moderator: [Stefan Karlsson](#)
[Head of Marketing & Strategic Development](#)
[SKF](#)

Conference partners



Moderator: **Christina Aabo**
Dong Energy

Christina Aabo has worked in the wind energy industry since 1998. With a background as M.Sc. in civil engineering, she initially joined the R&D department at Danish turbine manufacturer NEG Micon. From 2001 on she was heading the product management function at NEG Micon through the merger with Vestas. In 2005 she left to lead internationalization and product launches at the Indian turbine manufacturer Suzlon until 2007. From 2007 to 2010 she was Vice President for Product Management in Vestas and by 2010 she joined DONG Energy and is presently heading the R&D programme after a period in asset management and operations.



Dinner host and founder of the WFMC:
Inge Aasheim
SKF

Inge Aasheim is Service Business Development Manager for the SKF Industrial Market South & West European countries. He has over 30 years experience in O&M from a wide range of industries across Europe, including six years in wind energy. In 2006 he initiated and started the first SKF Wind Farm Management Conference, actually in The Netherlands, and hosted them until 2011. Inge is looking forward to be part of the 10th SKF Wind Farm Management Conference as the dinner host.



Presenter: **Carsten Lind Andersen**
Danish Wind Power Academy

After working for 15 years in the wind industry with installation and O&M, Carsten founded the Danish Wind Power Academy 11 years ago in 2004. With more than half of his life spent in this industry, he has developed a unique "condition-based training concept" that takes a data-driven approach and creates a customised training programme catered directly towards the operator's needs. The training programmes target all employees in operation of wind turbines from Risk, Asset and Operation Management to Technicians in the field and is taking into account their skills and backgrounds.



Presenter: **Magnus Andersson**
Systecon

Magnus Andersson started his career at Vattenfall where he worked on various Wind R&D topics. In 2011 he joined Systecon where he has worked as a consultant within the fields of Life Cycle Management, O&M, and Life Cycle Economics. Today he has one foot in Systecon's consultant department and one foot in the sales department. He is responsible for parts of the sales representative network of the simulation and optimization software Opus Suite. Magnus holds a M.Sc. in Energy Systems Engineering from Uppsala University in Sweden.



Moderator: **Markus Behn**
SKF

Coming from Siemens, Markus joined SKF in 2003 and is based in Hannover/Germany. He has a diploma in Industrial Engineering and Business Management as well as a MBA from Nordakademie in Germany. Before Markus joined the Wind industry, he worked several years for SKF in Automotive and Solar focusing on Business Development. Currently he takes care of the industrialization of SKF Insight™, an advanced Condition Monitoring System for Wind Turbines and APAC. Beside sales and execution of mid- and large scale wind farm projects with IPP's and Utilities' on a global scale, he has established and managed organizations in different countries around the world.





Presenter: **Carsten Brinck**
Connected Wind Services

Carsten Brinck has worked in the wind industry since 2000. Carsten has been with Connected Wind Services since 2011 where he is responsible for the sales, marketing and business development of the company's activities in the three business areas – operations and maintenance, gearbox refurbishment, and sales of wind turbine spare parts. Carsten has previous experience from NEG Micon, Vestas, Siemens and Suzlon, working at different operational and strategic levels with sales and operations on a global level.



Presenter: **Michael Drachmann Haag**
LM Wind Power

Michael Drachmann Haag, M.Sc. in Chemical Engineering with special focus on Advanced Material Science. He has been working for leading wind energy companies for more than 10 years. In his role as a Materials Specialist, he has been involved in several projects contributing to lowering cost and improving reliability of wind turbine blades. In addition to this he has been granted 7 international patents, within the field of advanced material science. In his current role at LM Wind Power, he is leading the development of reliable solutions for leading edge protection.



Presenter: **Stefan Faulstich**
Fraunhofer

Dipl.-Ing. M.Sc. Stefan Faulstich has studied electrical engineering at the University of Kassel, Germany and completed the Master Program "Renewable Energy and Energy Efficiency". Additionally, he is a special engineer for RAMS/LCC (Reliability, Availability, Maintainability; Life-Cycle-Cost). He has worked since 2008 as a research associate in the Energy Economy and Grid Operation department at the Fraunhofer Institute for Wind Energy and Energy Systems Technology (IWES), dealing with the deployment of wind energy use and with the reliability of wind turbines. Stefan is the head of the research group reliability and maintenance strategies.



Presenter: **Tim Feng**
Envision

Tim Feng has worked in the energy industry for 12 years. With a solid background in M. Sc. in civil engineering, he joined the consulting company BEMS to provide solutions and improvements in energy consumption system efficiency. After this he worked at Vestas for almost 8 years, dedicated to wind resource assessment and wind farm design optimization. He is a certificated Wasp software user. Today, Tim focuses on the benchmarking analysis of wind farm performance via the index of energy based availability.



Moderator: **Roland Flaig**
E.ON Climate & Renewables Nordic

Roland Flaig joined E.ON Climate & Renewables Nordic in 2009 and took on the responsibility for Operation & Maintenance in 2011, overseeing 154 wind turbines across 12 sites on- and offshore. His responsibilities included managing both warranty and post warranty service agreements and overseeing the build-up of a Nordic maintenance organization, first off-shore and since 2012 also for the onshore fleet. He is currently managing the Nordic onshore O&M organization, responsible for implementing the O&M strategy and improvement program projects to both reduce costs and improve performance in the Nordic onshore fleet.



Presenter: **Alexander Gerdes**
Quantec Networks

Alexander Gerdes was born in 1976 in Freiburg im Breisgau/Germany. After his apprenticeship as a banker, he studied business management at the University of Applied Science in Kaiserslautern. In 2006 he became sales manager of the HUMMEL AG, which is a family owned and worldwide active company with subsidiaries e.g. in Brazil, Russia, India and China. Fascinated by the spirit and the vitality of the wind branch, Alexander took over the responsibility as sales manager of Quantec Networks GmbH in 2010 and as managing director from 2014 on. This privately owned company develops communication solutions in wind farms and produces intelligent obstacle light systems. He is a member of the BWE Hersteller- und Zuliefererbeirat and speaks at several conferences about communication networks, IT security and obs on light systems.



Moderator: **Erik Hiensch**
Vattenfall

Erik Hiensch started his career as an electrical engineer, constructing industrial gas fired power stations globally for Siemens. He then moved on to work with Nuon, the Dutch utility, which was acquired by Vattenfall in 2009. He has fulfilled various roles, the latest being responsible for project procurement in Vattenfall Wind Power. Currently Erik is responsible for Operational Readiness in the management team for the Generation unit for Continental/UK, operating all wind assets for Vattenfall in this region.



Presenter: **Marc Huyzer**
Spares in motion

Marc Huyzer graduated from the Rotterdam Universiteit of Management (RSM) in the field of Business Administration and Entrepreneurship. After 10 years in the Aerospace industry, where he worked in an international context in senior supply chain and program management positions, he joined the wind sector with his start-up in 2012. Marc Huyzer is Managing Director and co-owner of SparesInMotion.Com; the independent online marketplace for the wind turbine aftermarket for spare parts, repairs, wind turbines and wind turbine services.



Presenter: **Balakrishnan G. Iyer**
Bharat Light and Power Group

Balakrishnan G. Iyer (Balki) currently works as the Chief Operating Officer of Bharat Light and Power Group in India. In this role, Balki has the responsibility for developing new business partnerships in Renewable Energy Generation & Smart Grid arena. Prior to this, Balki led Business Development for GE's Global Research Center, based in New York, with responsibility for driving new technology development in the Renewable Energy portfolio (namely Wind, Solar) & Smart Grid. Balki has worked in several GE businesses as well as external companies in the areas of BD, Services, Operations, Quality and Risk Management in the United States, Europe and Asia. Recently, he worked in GE Capital as Senior Vice President, Business Development. Balki attended the Birla Institute of Technology and Science (BITS) for Joint Undergraduate and Master's Degrees in Mechanical Engineering & Science; holds a Master of Science in Systems Science & Industrial Engineering from Binghamton University, NY, and a Master of Business Administration from New York University (NYU).



Presenter: **Justin Johnson**
EDP Renewables

Justin Johnson is the Director of Performance Management at EDP Renewables where he is responsible for the performance and engineering activities associated with operating 9 000 MWs of wind and solar power around the globe. His current responsibilities include monitoring/managing the performance of wind and solar plants and implementing/developing the most state-of-the-art tools and information available to ensure that plant production, efficiency and availability are optimized. Prior to joining EDP, Justin was a U.S. Air Force officer for 7 years. He graduated from the U.S. Air Force Academy with a degree in Operations Research and earned his MBA from Babson College.



Presenter: **Christian Jourdain**
Gamesa

Christian Jourdain is a civil engineer with an MBA from HEC Paris and ESADE, with strong international experience. Christian already has 9 years of experience in the wind industry and carried out different managerial positions in purchasing, operation & maintenance and sales within Gamesa. He is currently the head of the marketing & communication department for Services for all regions. Prior to joining Gamesa, he worked for Kodak for 5 years, based in New York State and in France, developing B2B web portal solutions. Christian also patented a board game on wind industry in which players are assets managers.



Moderator: **Stefan Karlsson**
SKF

Stefan Karlsson, with over 25 years of experience from sales and marketing management positions within SKF, entered the wind energy business in 2002, as Manager of recently formed SKF Global Wind Energy Segment, with focus on driving and coordinating wind energy business development within SKF. As of 2012 Stefan holds a position as Head of Marketing and Strategic Development within SKF. Stefan has also been active for several years in Swedish Wind Energy Association, from 2012 as Chairman of the Board.



Presenter: **Raf Kerkhofs**
SKF

Raf Kerkhofs, holding a master in Information Management, has been working for about 10 years at SKF, in different international positions. Before joining the wind industry, he has been working in aftermarket business for different industries and Key Account Management. For the last 3 years he has been in charge of Business Development for Wind O&M as well as the Wind O&M strategy implementation. Raf is based in Brussels, Belgium.



Moderator: **Jeroen Kossen**
Kossen Energy Consulting

Jeroen Kossen has worked in the Energy sector for 20+ years. After graduating as a BSc in aeronautical engineering in 1994, he joined the Service department at Woodward Governor. He held various positions at Woodward before joining GE in 2001 as Project Manager for their AeroEnergy division. Jeroen held various positions at GE, including that of European Sourcing Leader for GE WindEnergy before joining REpower in 2010 as SVP Global Sourcing. In 2013, Jeroen started his own consulting firm, focused on reducing the Total Cost of Energy. His most recent project was with ZF Windpower where he repositioned the Service department, including setting the future Service Strategy.



Moderator: **Jérôme Lacroix**
ZF Wind Power

Jérôme Lacroix started his career in service of the automotive and heavy industry where he held a variety of service development positions and learned about the relevance of improved service concepts and its customer retention. In 2009, he brought this knowledge into the wind turbine industry as he joined Hansen Transmissions International. His assignments included the service development for the European post-warranty market. Since the acquisition of ZF at the end of 2011, he became responsible for the sales support of the global ZF service wind centers and is based at the ZF Wind Power factory in Belgium.



Moderator: **Hannes Leopoldseeder**
SKF

Hannes Leopoldseeder, based at SKF in Steyr, Austria, is responsible for the global wind energy aftermarket sales within SKF. Throughout his career within SKF, which started in 2001, he has held a number of managerial positions in business development including two international assignments, Germany and Sweden. His background in the wind industry comes from his business development activities related to drive train solutions. He is in charge of developing the global SKF wind aftermarket sales as well as for the SKF wind aftermarket strategy implementation.



Moderator: **Nicolaj Mensberg**
DONG Energy Wind

Nicolaj Mensberg holds a B. Sc. in Electrical Engineering and a degree in Business Administration. He has worked in wind since 1999 for several leading wind turbine suppliers such as NEG Micon, Vestas, Suzlon and Clipper Windpower. During this time, the work has involved many aspects of the wind business including product development, product management, sales, project development and execution. In 2012 Nicolaj joined DONG Energy Wind where he now heads up Asset Integrity Management which is a multi-disciplined function in Operations with the main responsibility of ensuring the asset integrity of all DONG Energy wind farms under DONG operations.



Presenter: **Martin Reinholdsson**
Vattenfall BU Vindkraft

Martin Reinholdsson has 17 years of utility experience across several parts of the value chain in different disciplines. Martin has headed up Vattenfall Wind production for six years. He enjoys being part of a developing industry, where the joint efforts of the Utilities, OEMs and third party suppliers, together with authorities and local stakeholders, help make renewable energy affordable for society and yet profitable for investors.



Presenter: **Michael Richter**
Availon

After Michael's Business Administration studies in Germany and USA, his employment in Richter Company In- and Export, as well as his subsequently activities in Airbus, he changed in 2003 to the Jungheinrich company, where he worked in different positions until 2009. In February 2011 he finished his MBA studies, which he began in July 2011. At the same time, he was working for the Multi-Trade International company. From March 2011 until February 2013, he was responsible for service sales in Europe and North America in Nordex company. Since March 2013 he works as Global Sales Manager at Availon for Poland, Portugal, Spain, Italy and Germany.



Presenter: **Torben Rønnow**
DEIF

Torben Rønnow, B.Sc Electrical Engineering, has been head of R&D at DEIF since 2009. He is responsible for developing products and applications for wind turbines worldwide. His background within the wind industry is over 25 years, including 10 years as technical manager at Bonus Energy and almost 8 years as division manager at KK Wind Solutions. DEIF develops and manufactures rugged control products, complete electrical solutions, customized applications SW, SCADA solutions and Wind Park Power Management Solutions. This includes supporting customers with design recommendations for power converter, generator, main controller, pitch system to comply with IEC61400 and GL2010 including functional safety according to ISO13849.



Presenter: **Claus Rose**
Siemens AG

Claus is currently the Division EHS Officer for Siemens Wind Power & Renewables and part of the top management. Besides this, he has also been appointed as Chairman of the Global Wind Organisation. He has worked with Siemens since 2008 in various positions, all in the EHS area. He previously owned a consultancy company dealing with special constructions to be risk assessed to match legislation. He served 20 years as an officer in the Danish Army, with international postings and holds a university degree in management from the Danish Army.



Presenter: **Ruben Ruiz de Gordejuela**
Nabla Wind Power

Ruben Ruiz de Gordejuela has a Master Degree in Pure Mathematics from UPV, University of Basque Country, including several Prizes and Honor Distinctions. He is experienced in Aerodynamics, Aeroelasticity, Wind Turbines Design and Projects Management. For the last 10 years he has led technical teams and design projects in several Wind Industry OEM companies, as well as trained engineering students as Invited Professor at the University. At Nabla Wind Power he is in charge of the technical team which shapes and adapts the LTLMP (Long Term Life Management Plan) for each Wind Asset, according to the site-specific boundaries in order to achieve the most sensible and successful Life Extension and Asset value Upgrade.



Presenter: **Carlos Correia**
Vestas

Carlos Correia started working for Vestas over 10 years ago and has held many different positions within the company. Currently he is responsible for operations in South Europe and Latin America, next to his position as head of country Portugal.



Presenter: **Gilberto Serrano**
SKF

Gilberto Serrano is business development manager at SKF Española. In this role, Gilberto manages all aspects of the maintenance engineering service offer, including sales support, customer visits and service delivery. Gilberto Serrano is no stranger to asset management and reliability, having spent 10 years as a reliability engineer and a maintenance manager, where he accomplished the objective of increased asset reliability and availability in the various plants where he worked. Gilberto Serrano's varied background in outsourcing maintenance contracts and reliability improvements provided the perfect foundation for his maintenance engineering business development role.



Presenter: **Strange Skriver**
Danish Wind Turbine Owners Association

Strange Skriver was employed at the Danish Wind Turbine Owners Association in 1990. The main tasks during these 25 years of work have been End of Warranty inspections. Besides EoW inspections, his tasks also include inspection of gearboxes, endoscope inspections, work shop inspections, gear oil filter inspections, type approval of small wind turbines, member meetings, consultancies, inspection training etc. Strange Skriver has carried out more than 3 500 inspections on wind turbines in the range from 3 kW to 3 600 kW of more than 50 different wind turbine manufacturers and in more than 20 countries worldwide.



Presenter: **Laurent Vanhoudenhove**
SKF

Laurent was born in 1967, has one child and lives in Belgium. He has a Mechanical Engineering Master Degree and owns an International Executive Master of Business Administration from the Louvain School of Management. Laurent joined SKF in 1992 and has held several management positions within the SKF Group, the latest as Managing Director for SKF Industrial Market Benelux. Laurent has more than 20 years of experience, mostly in general management, strategic sales & marketing and M&A. During his tenure, SKF Benelux evolved into a knowledge engineering company which enables customers to profit from more than 100 years of accumulated application expertise. He is a member of the Board of SKF B.V. and SKF NV/SA.



Presenter: **Ceferino Viescas Fernández**
EDP Renewables

Ceferino studied at the Oviedo University where he gained his Engineering and Environmental Management degree. He also has a Business Administration degree and was a Professor in the Electric Engineering Department at the Oviedo University. In 1991 he started his career as a Production Manager at Soto de Ribera coal Power Plant -671 MW-, (hc-energía). In 2004 he joined EDP Spain, where he started as head of Operation and Maintenance. As of 2007 Ceferino is O&M Director EDP- Europe and Brazil.



Moderator: **Klaus Westhoff**
Eickhoff Antriebstechnik GmbH

Klaus Westhoff has worked for more than 15 years in the wind business. He worked for Flender / Windergy, Nordex, Siemens and Moventas before moving to Eickhoff.

SKF wind farm management conferences:

- 2006: Nieuwegein, the Netherlands
- 2007: Gothenburg, Sweden
- 2008: Hamburg, Germany
- 2009: London, UK
- 2010: Copenhagen, Denmark
- 2011: Barcelona, Spain
- 2012: Paris, France
- 2013: Warsaw, Poland
- 2014: Berlin, Germany
- 2015: Amsterdam, the Netherlands



Reduce total cost of ownership at every stage of your turbine life cycle

SKF Life Cycle Management is a proven approach to maximizing machine productivity and minimizing total cost of ownership over every stage, from specification and design to operation and maintenance. Importantly, the knowledge gained from end user stages is fed back into this continuous improvement loop to benefit next generation assets.

Whether you're responsible for designing, operating or maintaining wind turbines, you can take advantage of SKF engineering and application knowledge to optimize designs and extend service life, maximize productivity, minimize maintenance, improve reliability and safety, and reduce total cost of energy production.

For more information about SKF solutions for the wind energy industry, visit skf.com/wind.

The Power of Knowledge Engineering

Combining products, people, and application-specific knowledge, SKF delivers innovative solutions to equipment manufacturers and production facilities in every major industry worldwide. Having expertise in multiple competence areas supports SKF Life Cycle Management, a proven approach to improving equipment reliability, optimizing operational and energy efficiency and reducing total cost of ownership.

These competence areas include bearings and units, seals, lubrication systems, mechatronics, and a wide range of services, from 3-D computer modelling to cloud-based condition monitoring and asset management services.

SKF's global footprint provides SKF customers with uniform quality standards and worldwide product availability. Our local presence provides direct access to the experience, knowledge and ingenuity of SKF people.



SKF BeyondZero is more than our climate strategy for a sustainable environment: it is our mantra; a way of thinking, innovating and acting.

For us, SKF BeyondZero means that we will reduce the negative environmental impact from our own operations and at the same time, increase the positive environmental contribution by offering

our customers the SKF BeyondZero portfolio of products and services with enhanced environmental performance characteristics.

For inclusion in the SKF BeyondZero portfolio, a product, service or solution must deliver significant environmental benefits without serious environmental trade-offs.

All our solutions for the renewable energy sector have been selected for inclusion in the SKF BeyondZero portfolio, which includes products and solutions with significant environmental benefits, such as improved energy efficiency and the enabling of increased renewable energy generation.

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