Wednesday 4 February		
09.00	Registration & coffee	
	Opening session – Frontiers of Science and Technology Chairs: John Olav Tande, SINTEF/NOWITECH and Trond Kvamsdal, NTNU/NOWITECH	
09.30	Opening and welcome by chair	
09.40	Progress of offshore wind through R&D in FP7 and H2020, Susanna GALLONI, European Commission	
10.10	Innovations in offshore wind energy, John Olav Tande, SINTEF Energi / NOWITECH	
10.35	NORCOWE - From measurement campaigns to O&M, Kristin Frøysa, CMR	
11.00	IRPWind – The role of an integrated European research programme in strengthening development, innovation and competitiveness in the industry, Peter Hauge Madsen, DTU	
11.30	Accelerating offshore wind development and cost reductions, Jan Matthiesen, Carbon Trust OWA	
11.55	Closing by chair	
12.00	Lunch	
	Parallel sessions	
	A1) New turbine, generator and wind farm technology Chairs: Karl Merz, SINTEF Prof Gerard van Bussel, TU Delft	**C1) Met-ocean conditions** Chairs: Valerie-Marie Kumer, Uni of Bergen Erik Berge, Civitas AS
13.00	Introduction by Chair	Introduction by Chair
13.05	*Outcomes of the DeepWind conceptual design*, Uwe Schmidt paulsen, DTU Wind Energy	*Floating Platform Motion Correction Using Video Camera Images,* Mostafa B. Paskyabi, University of Bergen
13.30	*Integrated simulation challenges with the DeepWind floating vertical axis wind turbine concept*, Michael Borg, Technical University Denmark	*Assessment of wind conditions at a fjord inlet by complementary use of sonic anemometers and lidars,* Jasna Bogunović Jakobsen, UiS
13.50	*Applications of active damping control for offshore wind turbines*, Karl Merz, SINTEF Energi AS	*Characterisation of single wind turbine wakes with static and scanning LiDARs,* Valerie-Marie Kumer, UiB
14.10	*Evaluation of fatigue loads at horizontal up-scaled wind turbines*, Romans Kazacoks, Strathclyde University	*Influence of wind farms on ocean upwelling offshore Norway*, Ole Henrik Segtnan, Polytec
14.30	Closing by Chair	Closing by Chair
14.35	Refreshments	
	A2) New turbine, generator and wind farm technology (cont.)	**C2) Met-ocean conditions (cont.)**
15.05	Introduction by Chair	Introduction by Chair
15.10	*Wind and wave sensitivity assessment of a TLP wind turbine*, G.K.V. Ramachandran, DNV GL	*Innovative measurement technologies for met-ocean and soil conditions*, Bernhard Lange, Fraunhofer IWES
15.30	*Use of steel for towers of wind turbines and support structures*, Arno van Wingerde, Fraunhofer IWES	*Testing of the SEAWATCH Wind Lidar Buoy against a met mast,* Ola Storås, Fugro Oceanor
15.50	*Evaluation of Optimal Power Frequencies for Remote Offshore Wind Farms*, Lars Hytten, DNV GL	*Influence of sea structures on wind measurements: CFD analysis*, Leonid Vasilyev, Polytec
16.10	Closing by Chair	Closing by Chair
18.00 19.00	**Round tour in Nidarosdomen with choir mini-concert** **Conference reception: Refreshments and light food at To Tårn**	

Wednesday 4 February 13.00 – 16.00 Side event – EERA IRPwind access to open data; chair Peter Hauge Madsen, DTU	
13.00	Welcome – objectives on available open data / open knowledge, Peter Hauge Madsen, DTU
13.15	Open access in Horizon2020 and in a broader European policy context, Susanna Galoni, European Commission
13.35	Sharing data in IRPWIND WP6: Design of offshore wind farms, John Olav Tande, SINTEF Energi
14.00	Examples of available open and restricted data (Charlotte Hasager, DTU // Madjid Karimirad, MARINTEK // Karl Merz, SINTEF Energi)
15.00	Panel Discussions moderated by Peter Hauge Madsen, DTU Participants: Jørgen Krogstad, Statkraft, Inger Marie Malvik, Fedem, Jan Matthiesen, Carbon Trust OWA, John Olav Tande, SINTEF Energi, Charlotte Hasager, DTU Introduction (5 minutes each) by panelists followed by discussion. Example points for discussion: - Inventory of data that can be shared - Type of data that are not possible to implement as open access (e.g. design data) - Proposal for data sharing with virtual coins
16.00	Closing

Thursday 5 February		
	Parallel sessions	
	X1) Socio-economics of offshore wind energy Chairs: Marianne Ryghaug, NTNU and Audun Ruud, SINTEF	**E1) Installation and sub-structures** Chairs: Prof Hans Gerd Busmann, Fraunhofer IWES Jørgen Krokstad, Statkraft; Michael Muskulus, NTNU
09.00	Introduction by Chair	Introduction by Chair
09.05	*Policy co-ordination for a North Sea Grid: Challenges and possible measures from a Norwegian perspective,* Jørgen Knudsen & Gerd Jacobsen, SINTEF Energy Research	*Design, Analysis and Wave Tank Testing of a Semi-Submersible Braceless Concrete Offshore Wind Turbine Platform*, Tor Anders Nygaard, IFE
09.30	*Determining the economic value of offshore wind power plants in the changing energy system*, C. Richts / M. Jansen, Fh IWES	*Integrated automated optimization of offshore wind turbine and support structure*, Marten Jan de Ruiter, Knowledge Centre WMC
09.50	*An integrated risk analysis for offshore wind sites,* Bonnie Ram, DTU Wind Energy, Technical University of Denmark	*Implementation of a hysteretic 3D soil model in an aeroelastic code. Dynamic analysis of an offshore wind turbine in misaligned wind and waves,* Signe Schløer, DTU Wind Energy
10.10	*China's offshore wind industry – some perspectives on innovation and technology transfer,* Marius Korsnes, NTNU	*Optimization of Offshore Wind Turbine Support Structures Using Analytical Gradient-Based Method,* Kok-Hon Chew, Nanyang TU
10.30	Refreshments	
	X2) Socio-economics (cont.)	**E2) Installation and sub-structures (cont.)**
10.55	*Socialisation of offshore wind technology: Scientists as agents of socialisation,* Sara Heidenreich, NTNU	*Model Building and Scaled Testing of 5MW and 10MW Semi-Submersible Floating Wind Turbines*, Frank Sandner, Uni Stuttgart
11.15	*Regulating wind farms in future offshore grids,* Klaus Skytte, DTU	*Relative Assessment of Fatigue Loads for Offshore Wind Turbine Support Structures,* Lars Einar Stieng, NTNU
11.35	*Social responsible innovation in offshore wind,* Rolf Kunneke, TUDelft	*Calibration of a numerical model with experimental data and evaluation of a simplified aerodynamic model for the Pelastar TLP,* M.I. Kvittem, DNV GL
11.55	Closing by Chair	Closing by Chair
12.00	Lunch	
	B1) Grid connection and power system integration (Windgrid) Chairs: Prof Kjetil Uhlen, NTNU Prof Olimpo Anaya-Lara, Strathclyde University	**G1) Experimental Testing and Validation (IEA OC3/4)** Chairs: Tor Anders Nygaard, IFE Ole David Økland, MARINTEK, Amy Robertson, NREL
13.00	Introduction by Chair	Introduction by Chair
13.05	Key note: *Research challenges for offshore HVDC grids and its components,* Prof. Torbjörn Thiringer, Chalmers Uni. of Techn.	Key note: *Introduction to the OC5 Project, an IEA Task Focused on Validating Offshore Wind Modeling Tools*, Amy Robertson, NREL
13.30	*Modelling MMC-HVDC Systems – An Overview*, A.Beddard, University of Manchester	*Recent Developments of FAST for Modelling Offshore Wind Turbines,* Jason Jonkman, NREL
13.45	*Multi-Terminal HVDC Modeling in Conventional Load Flow Analysis Considering Converter Station Topologies and Losses,* T. Hennig, Fraunhofer IWES	*CFD predictions of NREL Phase VI Rotor Experiments in operational and parked conditions,* Luca Oggiano, IFE
14.00	*Grid model reduction for large scale wind integration analyses,* Harald G. Svendsen, SINTEF Energi AS	*Verification of the Second-Order Wave Loads on the OC4-Semisubmersible*, Sébastien Gueydon, Maritime Inst. Netherlands
14.15	*Integrated modelling platform for dynamic performance assessment of floating wind turbines,* Atsede G. Endegnanew, SINTEF Energi AS	*Study of the effect of water depth on potential flow solution of the OC4-semisubmersible Floating Offshore Wind Turbine,* Ilmas Bayati, Politecnico di Milano
14.30	Refreshments	
	B2) Grid connection and power system integration (cont.)	**G2) Experimental Testing and Validation (cont.)**
15.00	Keynote: *Operation of offshore wind power plants connected with HVDC*, Prof. Oriol Gomis, IREC, Spain	*Real-time hybrid model testing of floating wind turbines: sensitivity to limited actuation*, Erin E. Bachynski, MARINTEK and CeSOS/NTNU
15.25	*Balancing options and costs for offshore wind power in the North Sea,* Magnus Korpås, NTNU	*Benchmarking speed of aeroelastic analysis (Cloud to the rescue?),* Paul Thomassen, Simis as
15.40	*Small signal analysis of CIGRE HVDC grid*, Jordi Pegueroles-Queralt, IREC	*Determination of scaled wind turbine rotor characteristics from 3 dimensional rans calculations,* Simon Burmester, MARIN
15.55	*A Comparison of VSC-HVDC with LFAC for Offshore Wind Farm Design and Interconnection*, Jonathan Ruddy, University College Dublin	*Wind Tunnel Tests on the Influence of Yaw Misalignment and Pitch Variation of Two Model Wind Turbines in Tandem-Setup,* J. Schottler, ForWind, University of Oldenburg
16.10	*Frequency support using an offshore wind farm connected via a HVDC link*, Alexander Giles, University of Strathclyde	*Measurement campaign of a large rotor wind turbine*, L. Eliassen, NTNU
16.25	Closing by Chair	Closing by Chair
16.30	Refreshments	
17.00	**Poster session**	
19.00	**Dinner at Radisson Blu Royal Garden hotel**	

Thursday 5 February 17.00: Poster Session with refreshments

1. *3D CFD and FSI-simulation of flow around turbine blades,* Arne Morten Kvarving, SINTEF ICT
2. *Design aspects on winding of the Innwind.eu MgB2 superconducting generator coil, Niklas Magnusson, SINTEF Energi AS*
3. *Isogeometric methods for CFD and FSI-simulation of flow around turbine blades,* Timo van Opstal, NTNU
4. *Superconducting Fault Current Limiter for HVDC Systems,* Xiaoze Pei, University of Manchester
5. *Spline based Mesh Generator for high fidelity simulation of flow around turbine blades*, Eivind Fonn, SINTEF ICT
6. *LFAC Transmission for Offshore Wind Applications: Fundamentals and Technology Status Review,* Olimpo Anaya-Lara, Strathclyde University
7. *Optimized Design of a LCL DC/DC converter for Offshore Wind Turbines,* Rene A. Barrera, NTNU
8. *Wind Turbine and Offshore Wind Farm Modelling for System Level Harmonic Studies,* Henrik Brantsæter, NTNU
9. *Impact of Future North-Sea HVDC Converters in the Norwegian Transmission System*, Emilie Brunsgård Ek, SINTEF Energi AS
10. *DC Voltage Control for Fault Management in HVDC Transmission System,* Anastasios Oulis Rousis, SGURR Energy
11. *Influence of technical limitations and operation on sizing of an offshore energy storage connected to an offshore wind farm,* Ole Christian Spro, SINTEF Energi AS
12. *Resampling of Data for Offshore Grid Design based on Kernel Density Estimation and Genetic Algorithm,* Vin Cent Tai, NTNU
13. *A Review of Technical Solutions for the North Sea Super Grid,* Til Kristian Vrana, SINTEF Energi AS
14. *Assessment of wind turbine representation in the upper ocean circulation and turbulence variability,* Mostafa B. Paskyabi, UiB
15. *Near Surface Turbulence and Gravity Wave Measurements Using a Lagrangian Drifter*, Mostafa Bakhoday Paskyabi, UiB
16. *Turbulent Structure over Air-Sea Wavy Interface: Large-Eddy Simulation,* Mostafa Bakhoday Paskyabi, UiB
17. *Scales of wind gusts relevant for time-varying loads on wind turbine rotors,* Piotr Domagalski, Lodz University of Technology
18. *The Norwegian Offshore Boundary Layer Observatory for wind energy assessment,* Martin Flügge, CMR
19. *Britta Storm in the North Sea and the Offshore Research Platform FINO1,* Anthony James Kettle, UiB
20. *The Effect of Swell on Marine Atmospheric Boundary Layers*, Eirik Manger, Acona Flow Technology
21. *Reference cases for benchmarking operation and maintenance models for offshore wind farms,* Rebecca.Martin, EDF Energy R&D
22. *The Capabilities and Effectiveness of Remote Inspection of Wind Turbines,* Øyvind Netland, Norsk Automatisering AS
23. *Optimization of routing and scheduling to perform maintenance at offshore wind farms,* Magnus Stålhane, NTNU
24. *Use of Remotely Piloted Aircraft Systems for inspection of offshore wind turbines,* Anders Valland, MARINTEK
25. *Fabrication and installation of a TLP pilot plant for wind turbines,* D. Matha, TU Bergakademie Freiberg
26. *Installation of monopiles for offshore wind turbine foundations,* Ivana Anusic, NTNU
27. *Optimal Design of Stiffeners for Bucket Foundations*, William Courtney, DTU Wind Energy
28. *Reliability Analysis of Offshore Wind Turbine Foundations,* Ivan Depina, NTNU
29. *Advanced time-domain simulation of jackets for offshore wind turbines,* Jan Dubois, ForWind – Leibniz University Hannover
30. *Coupled Mooring Systems for Floating Wind Farms,* Marek Goldschmidt, NTNU
31. *Dynamic Model Test of Monopile Foundation for OWT's,* Stian Baardsgaard Hanssen, NTNU
32. *Hybrid offshore platforms for cost-efficient development of deepwater renewable energies,* Jan Erik Hanssen, 1-Tech s.p.r.l
33. *Comparison of dynamic behavior of four different designs of 5-MW V-shaped Semisubmersible Offshore Wind Turbine,* Madjid Karimirad, MARINTEK
34. *Probabilistic Fatigue Design of Jacket Support Structures for Offshore Wind Turbines Exemplified on Tubular Joints,* Sebastian Kelma, ForWind Hannover – Leibniz University Hannover
35. *Wind Turbines Exemplified on Tubular Joints,* Sebastian Kelma, ForWind Hannover – Leibniz University Hannover
36. *Characterization of wave slamming forces for a truss structure within the framework of the WaveSlam project,* Ignacio Rausa Heredia, NTNU
37. *Mass manufacturing optimization of jacket foundations*, Kasper Sandal, DTU Wind Energy
38. *Sensitivity of wave fatigue loads on offshore wind turbines under varying site conditions,* Lisa Ziegler, NTNU
39. *Three Dimensional Variable Turbulent Intensity Flow Field Characterization of a Vertical Axis Wind Turbine,* M. Salman Siddiqui, NTNU
40. *Wind turbine performance measurements using a Lidar,* Lars Morten Bardal, NTNU*Characterization of stalled flow by unsteady surface pressure measurements on a wind turbine airfoil,* J. Bartl, NTNU
41. *Dynamic motion effects and compensation methods of a floating lidar buoy,* O. Bischoff, University of Stuttgart
42. *Fatigue performance of glass fibre – vinyl ester composite at ambient and subzero temperature,* Jens Kjær Jørgensen, SINTEF Materials and Chemistry
43. *Development of a Prescribed Wake Model for Simulation of Wind Turbines,* Ludwig Krause, German Aerospace Center (DLR)
44. *Scale-downed pitch controller for model test of a 5MW floating offshore wind turbine,* Hyunkyoung Shin, University of Ulsan, South Korea
45. *Verification and implementation of a state-space hydrodynamic model for wind tunnel-HIL application of FOWT tests, Ilmas Bayati, Politecnico di Milano*
46. *Droplet erosion on wind turbine blades,* Emil André Valaker, NTNU
47. *Cost Reduction for Offshore Wind Jacket Foundation – From Designer Perspective,* Sie Shui Ting, Atkins global
48. *Effects of Bearing Configuration in Wind Turbine Gearbox Reliability,* Juan Gallego-Calderon, DTU Wind Energy
49. *Parameterized Dynamic Modelling Approach for Conceptual Dimensioning of a Floating Wind Turbine System*, Frank Sandner, Uni. Stuttgart
50. *Influence of large wind farms on the upper ocean circulation*, Ole Henrik Segtnan, Polytec
51. *Statistical analysis of wind mast data from an onshore wind farm,* Asif Mushtaq, NTNU
52. *Mesoscale numerical modelling of met-ocean interactions*, Jakob Kristoffer Süld, MET
53. *3D Beam element for FSI-simulation of flow around turbine blades,* Knut Morten Okstad, SINTEF ICT

Thursday 5 February 17.00 – 18.45 **Side event – visit to MARINTEK hydrodynamic lab / ocean basin and structural / full scale cable testing lab**	
17.00	Bus from Royal Garden to MARINTEK
17.15	Lab tour at MARINTEK
18.30	Bus from MARINTEK
18.45	Arrival at Royal Garden

Friday 6 February		
	Parallel sessions	
	D) Operations & maintenance Chairs: Thomas Welte, SINTEF Energi AS Michael Durstewitz, Fraunhofer IWES	**F) Wind farm optimization** Chairs: Prof Trond Kvamsdal, NTNU Thomas Buhl, DTU Wind Energy
09.00	Introduction by Chair	Introduction by Chair
09.05	*Planning of operation & maintenance using risk- and reliability-based methods,* Mihai Florian, Aalborg University	*Comparative levelized cost of energy analysis,* Denis Matha, University of Stuttgart
09.25	*Assessment of Gearbox Operational Loads and Reliability under High Mean Wind Speeds,* Dariusz Dabrowski, Technical University of Denmark	*A fast reduced order method for assessment of wind farm layouts,* Yngve Heggelund, Christian Michelsen Research
09.45	*Cost benefit analyses of mothership concept and investigation of optimum operational practice for offshore wind O&M fleets – StrathOW-OM Tool,* Jayanta Majumder, University of Strathclyde	*Wind Farm Simulator; Time-dependent wind energy calculations,* Ove Undheim, Kjeller Vindteknikk
10.05	*SCADA data interpretation improves wind farm maintenance,* Kesheng Wang, NTNU	*Investigation of the impact of wakes and stratification on the performance of an onshore wind farm,* Mandar Tabib, SINTEF ICT
10.25	Closing by Chair	Closing by Chair
10.30	Refreshments	
	Closing session – Strategic Outlook Chairs: John Olav Tande, SINTEF/NOWITECH and Michael Muskulus, NTNU/NOWITECH	
11.00	Introduction by Chair	
11.05	Status and plans for Hywind Scotland, Rune Yttervik, Statoil	
11.35	Optimized wind farm operation, Oddbjørn Malmo, Kongsberg Maritime	
12.05	R&D as input to cost of energy reductions, Jørgen Krogstad, Statkraft	
12.35	Poster award and closing	
13.00	Lunch	

Friday 6 February Side events
08.30 – 10.30: Industry Reference Group meeting on proposal for new FME on offshore wind energy (2017-2024)
08.30 – 16.00: IEA OC5 meeting; chair Amy Robertson, NREL