Renewable Energy Grid Integration Week

E-MOBILITY | HYDROGEN | WIND & SOLAR

07-11 OCT ´24

HELSINKI
FINLAND

organized by energy**nautics**

BACKGROUND INFORMATION

CONTENT

Renewable Energy Grid Integration Week

The Renewable Energy Grid Integration Week comprises three high-quality conferences on grid integration of renewable energies in one week and attracts participants from all over the world. The conference series takes place in a different location each year highlighting that region's particular grid integration issues in keynotes and presentations throughout the week.

Thus, the conferences are designed to provide a platform for power system operators, transmission and distribution grid operators, wind turbine, gas turbine and solar inverter manufacturers, electrolyzer and fuel cells as well as charging station manufacturers, universities and research institutes, and consulting companies to exchange technical and economic developments.

With several accompanying events such as the networking poster sessions for each of the events, the wind and solar networking dinner, study trips and tutorials, the renewable energy conference series provides not only a great learning experience but also the perfect opportunity for energy experts to network with their peers from all around the world.

Get insights into the Renewable Energy Grid Integration Week and see what participants and colleagues have to say about this conference!

How it all began

The Renewable Energy Grid Integration Week looks back to a year-long history. Back in 1999, two Ph.D. students at KTH-Royal Institute of Technology, Stockholm, Sweden, one of them Energynautics CEO Dr. Thomas Ackermann, spent hours discussing the integration of wind power into power systems and possible applications of HVDC technology for offshore wind farms.
These academic discussions led to the "International Workshop on Feasibility of HVDC Transmission Networks for Offshore Wind Farms" in 2000 and already included many experts from the wind industry.

This Workshop then developed into the annual "International Workshop on Large-Scale Integration of Wind Power into Power Systems as well as on Transmission Networks for Offshore Wind Power Plants" and has from 2011 to 2021 been conducted in conjunction with the Solar & Storage Integration Workshop.

In 2017, the first E-Mobility Power System Integration Symposium joined these renowned conferences and together they formed the original Renewable Energy Grid Integration Week.

In 2022, the Wind and Solar & Storage Integration Workshops merged to the Wind & Solar Integration Workshop.

Renewable Energy Grid Integration Week 2024

The Renewable Energy Grid Integration Week will start with the E-Mobility Power System Integration Symposium, followed by the Wind & Solar Integration Workshop.

PRELIMINARY SCHEDULE (SUBJECT TO CHANGE)

8th E-Mobility Integration Symposium

Monday, 7 October
- Symposium Day 1 | *09:00 - 18:00*
- Networking Event | *18:00 - 21:00*

Tuesday, 8 October (tbc)
- Symposium Day 2 | *09:00 - 12:00*

23rd Wind & Solar Integration Workshop

Tuesday, 8 October
- Workshop Day 1 | *09:00 - 18:00*
- Wind & Solar Poster & Networking Reception | *18:00 - 21:00*

Wednesday, 9 October
- Workshop Day 2 | *09:00 - 18:00*
- Wind & Solar Networking Event | *19:00 - 22:00*

Thursday, 10 October
- Workshop Day 3 | *09:00 – 17:00*

Friday, 11 October (tbc)
- Workshop Day 4 | *09:00 – 14:00*

DATE & LOCATION

OCT 07-11

07–11 October 2024

Helsinki, Finland

Expected participants:
>120 E-Mobility
>250 Wind & Solar

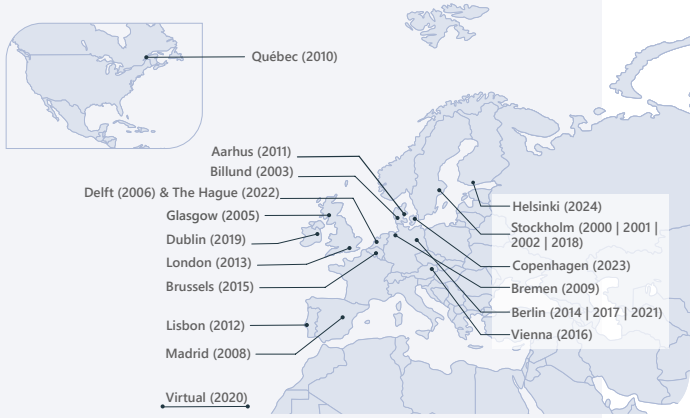
Subscribe to our Newsletter & have a look at the keynote and closing sessions of the Renewable Energy Grid Integration Week 2023:

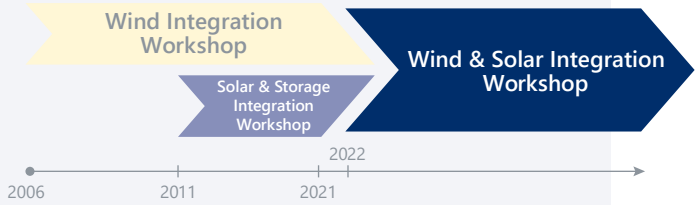
Development of the Wind & Solar Integration Workshop

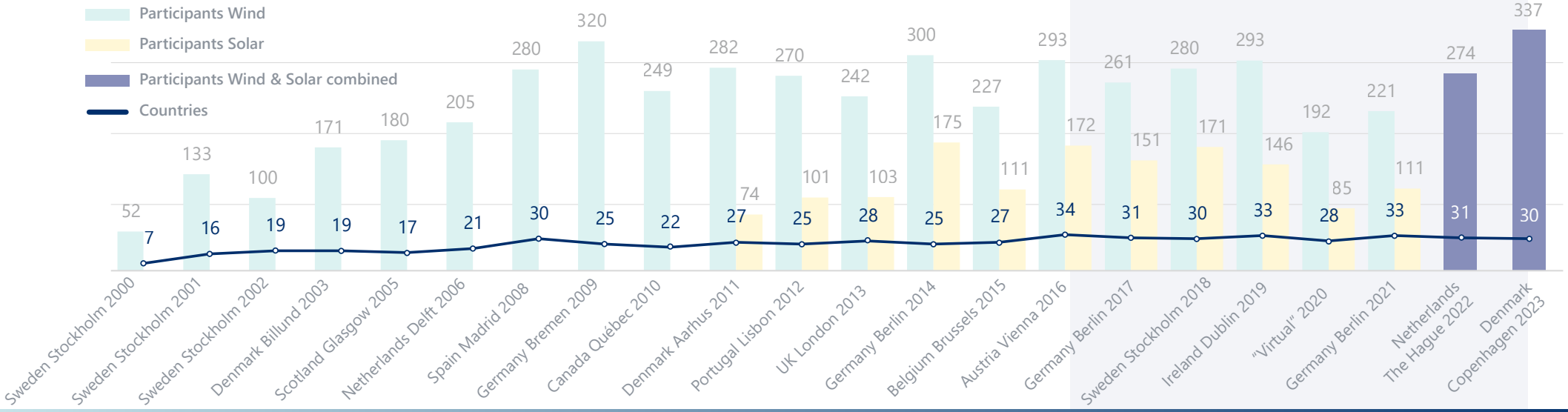
More than 20 years after its first edition, the Wind & Solar Integration Workshop has developed into one of the premier conferences in its field, providing an excellent platform for discussing the subject of grid integration of wind and solar power into power systems.

It has been organized by Energynautics and its CEO, Thomas Ackermann, since 2006.
From 2011 to 2021, the Wind Integration Workshop has been conducted back to back with the Solar & Storage Integration Workshop. In 2022, the Wind and Solar & Storage Integration Workshops merged to the Wind & Solar Integration Workshop in order to take into account the many possible synergies and to meet the wishes of the participants.

Having started with only 52 participants from 7 countries, the Wind & Solar Integration Workshop attracts nowadays between 230 and 300 participants each year from around 25 to 34 countries.





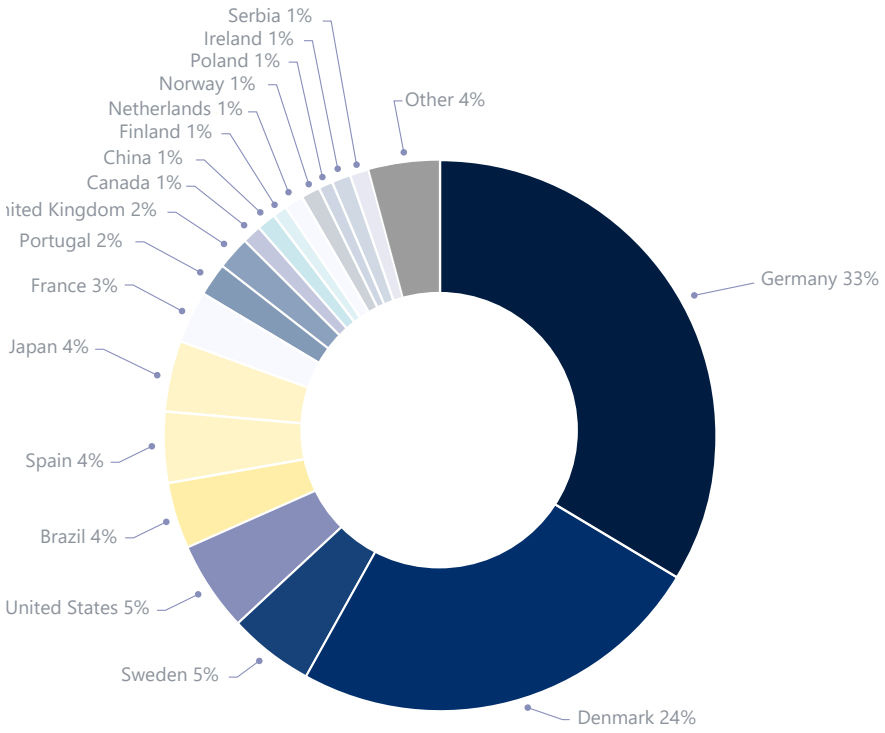


Facts & Figures

The following charts about our workshop 2023 in Copenhagen show the origin of the participants regarding their country and the type of organization / company they work for.

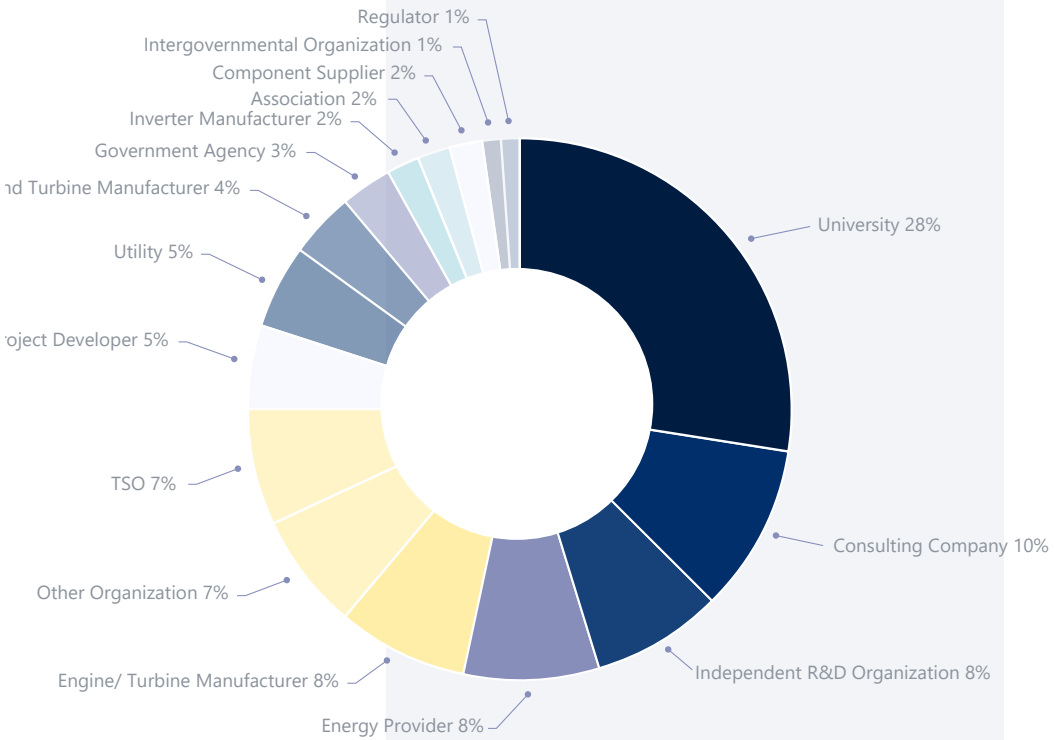
PARTICIPANTS BY COUNTRY

Wind & Solar Integration Workshop | Copenhagen 2023



PARTICIPANTS BASED ON ORGANIZATION

Wind & Solar Integration Workshop | Copenhagen 2023



Main Topics of the Workshop

- Project Experience with Grid Integration of Wind Power / PV / Batteries
- Grid Forming Aspects and Experience
- Power System Studies
- Distribution Grid Issues
- Transmission Grid / Power System Issues
- Power Quality Issues
- Grid Code Issues and Future Aspects
- Wind / Solar Power & Battery Modelling Issues
- Power System Balancing Issues
- Ancillary Services
- Forecasting
- Smart Grid / IT Innovations
- Energy Market and Regulatory Issues
- AI and Machine Learning for Grid Integration
- Decarbonization of Energy Sectors
- Hybrid Power Systems
- Hybrid Power Plants
- Battery Aspects (Operation, Modelling)
- Sector Coupling Based on Wind / PV incl. Hydrogen
- Fuel Cell Modelling / Fuel Cell Systems Modelling
- Electrolyzer Modelling
- Hydrogen Systems Modelling
- Renewable Hydrogen Technologies and Applications
- Decarbonizing the Industrial Processes
- Energy System Management with Hydrogen
- Hybrid Power Systems
- Smart Grid / IT Innovations
- Energy Market and Regulatory Issues
- Decarbonization of Energy Sectors
- Forecasting







International Advisory Committee

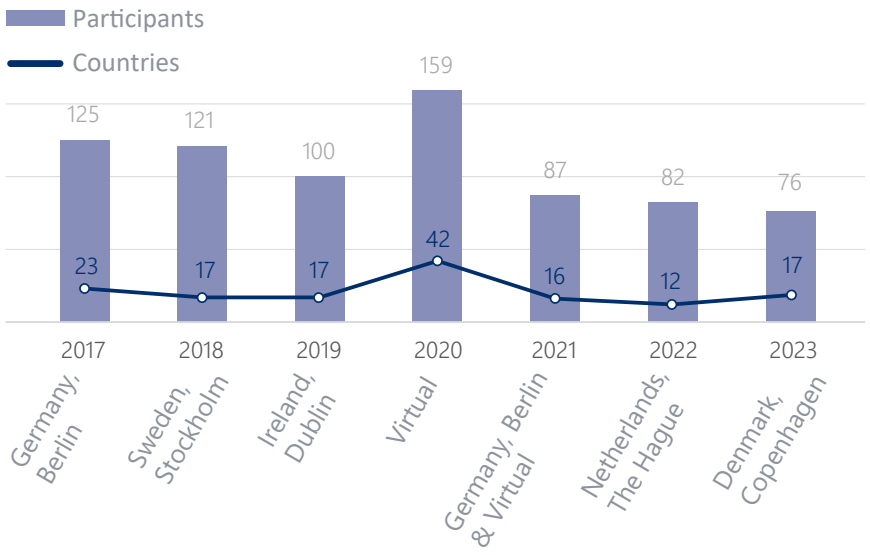
Besides giving general advice for content and topics of the workshop, and working as reviewers of submitted abstracts during the Call for Paper process, they are acting as multipliers for the workshop idea and date. All members receive a media package to support the workshop communication.

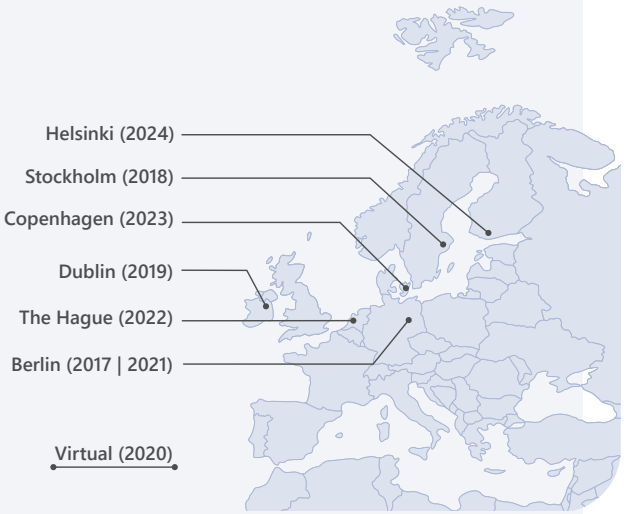
- Thomas Ackermann
  Energynautics, Germany
- Sigrid Bolik
  Siemens, United Kingdom
- Roland Bründlinger
  AIT – Austrian Institute of Technology, Austria
- Peter W. Christensen
  SWECO Danmark, Denmark
- Kaushik Das
  DTU, Denmark
- Jaap de Boer
  Energy Watch, Netherlands
- Julian Eggleston
  DIgSILENT Pacific, Australia
- Bernd Engel
  SMA Solar Technology, Germany
- Bernhard Ernst
  Bernhard Ernst Energy Consulting, Germany
- Ana Estanqueiro
  LNEG, Portugal
- Andreas Falk
  SMA, Germany
- Alain Forcione
  IREQ Hydro Québec, Canada
- Jens Fortmann
  HTW Berlin – University of Applied Sciences, Germany
- Michael Nørtoft Frydensbjerg
  Vattenfall Vindkraft, Denmark
- Gregor Giebel
  DTU Wind Energy, Denmark
- Jutta Hanson
  Technical University Darmstadt, Germany
- Craig Hart
  IEA, France
- Bri-Mathias Hodge
  NREL, USA
- Hannele Holttinen
  recognis, Finland
- Reza Iravani
  University of Toronto, Canada
- Tomas A. Kåberger
  Chalmers University of Technology, Sweden
- Jako Kilter
  Tallinn University of Technology – TalTech, Estonia
- Vasiliki Klonari
  WindEurope, Belgium
- Łukasz H. Kocewiak
  Ørsted Offshore, Denmark
- Lars Landberg
  DNV GL, Denmark
- Debra Lew
  ESIG, USA
- Oskar Lindberg
  Uppsala University, Sweden
- Frank Martin
  Siemens Gamesa, Denmark
- Julia Matevosyan
  ESIG, USA
- Nickie Menemenlis
  Hydro Québec-IREQ, Canada
- Rossano Musca
  University of Palermo, Italy // Neplan, Switzerland
- Lise Nielson
  Linie P, Denmark
- Lars Nordström
  KTH – Royal Institute of Technolohgy, Sweden
- Kazuhiko Ogimoto
  University of Tokyo
- Antje Orths
  Energinet.dk, Denmark
- Hassan Qazi
  EirGrid, Ireland
- Eckard Quitmann
  Enercon, Germany
- César Saiz
  Hitachi ABB Power Grids, Switzerland
- Nigel Schofield
  University of Huddersfield, United Kingdom
- Inga Skrypalle
  Vestas Wind Systems, Denmark
- J. Charles Smith
  ESIG, USA
- Lennart Söder
  KTH – Royal Institute of Technology, Sweden
- Poul Ejnar Sørensen
  DTU Wind Energy, Denmark
- Jian Sun
  Rensselaer Polytechnic Institute, USA
- Pieter Tielens
  Engie Impact, Belgium
- Helge Urdal
  Urdal Power Solutions, United Kingdom
- Julio Usaola
  Charles III University of Madrid, Spain
- Marta Val Escudero
  EirGrid, Ireland
- Dirk Van Hertem
  KU Leuven, Belgium
- Patrick van de Rijt
  TenneT TSO, Netherlands
- Yoh Yasuda
  Kyoto University, Japan
- Xiaoyao Zhou
  nationalgridESO, United Kingdom

Objective of the Symposium

The purpose of the E-Mobility Power System Integration Symposium is to discuss the challenges that arise with increased power demand due to electric vehicle charging, and how they can be met by coordinating with renewable power production in the electrical system (hence the combination with the Wind & Solar Integration Workshop). The selection of topics also highlights the need for integrating the required electric vehicle charging infrastructure with the expansion of the distribution and transmission system.

The Symposium offers a prime opportunity to discuss the significant future impact of electromobility on power system design and operation. It aims to bring together experts on electric vehicles, charging infrastructure, power system operators, and stakeholders of the renewable energy industry as well as power system regulators and universities.



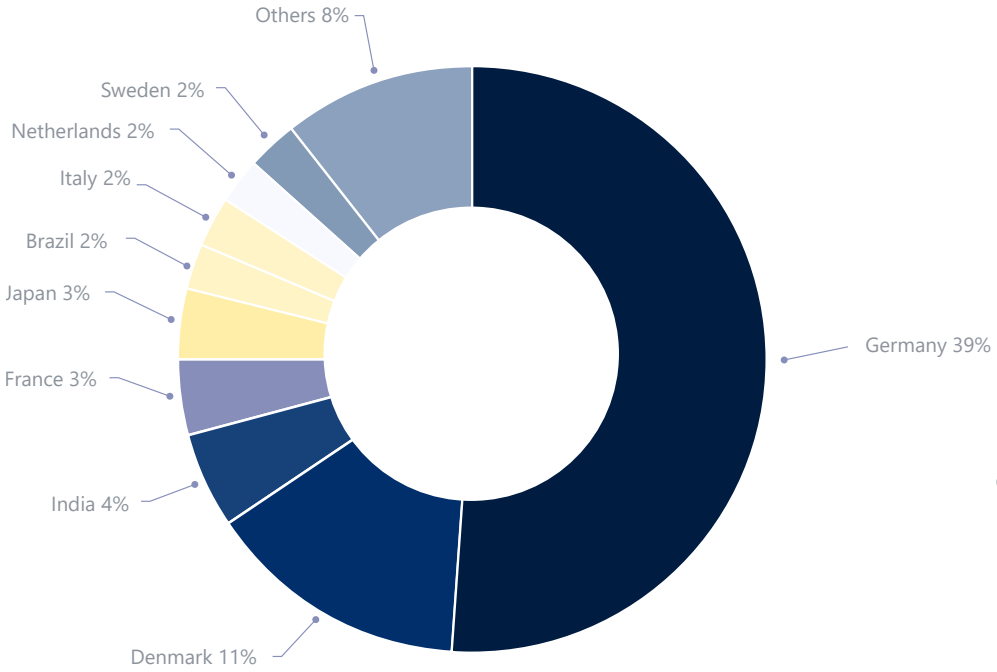


Facts & Figures

The following charts about our symposium 2023 in Copenhagen show the origin of the participants regarding their country and the type of organization/company they work for.

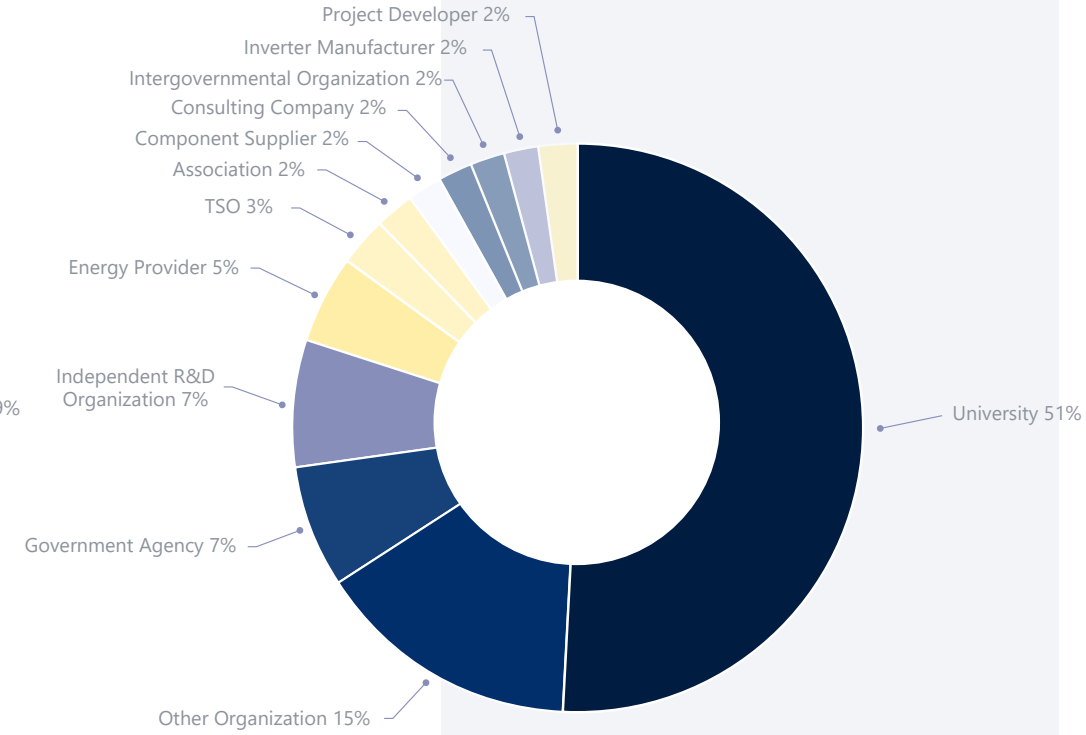
PARTICIPANTS BY COUNTRY

E-Mobility Power System Integration Symposium | Copenhagen 2023



PARTICIPANTS BASED ON ORGANIZATION

E-Mobility Power System Integration Symposium | Copenhagen 2023



Main Topics of the Symposium

- Project Experience with EV Grid Integration
- Grid Forming Aspects and Experience
- Power System Aspects with High Shares of EVs
- Distribution Grid Issues
- Market and Regulatory Aspects
- Charging Infrastructure Planning & Smart Charging
- High Power Charging
- Vehicle to Grid incl. Ancillary Service Participation
- Charging Methods (AC, DC, Wireless) + Standardization of charging modes / communication
- Communication and Security Aspects
- Grid Integration Modelling Aspects
- Grid Code Issues and Future Aspects
- Decarbonization of Energy Sectors
- Decarbonization of Transport with Green Hydrogen
- Electrification of Urban Mobility
- Mobility as a Service
- AI and Machine Learning for Grid Integration
- E-Mobility and Renewable Energy Integration

International Advisory Committee

Besides giving general advice for content and topics of the event, and working as reviewers of submitted abstracts during the Call for Paper process, they are acting as multipliers for the symposium idea and date. All members receive a media package to support the symposium communication.

- Thomas Ackermann
  Energynautics, Germany
- Jann Binder
  Center for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW), Germany
- Sigrid Bolik
  Siemens, United Kingdom
- Johannes Brombach
  Shell Global Solutions, Germany
- Karsten Burges
  RE-xpertise, Germany
- Markus Dietmannsberger
  Hamburger Hochbahn, Germany
- Bernd Engel
  SMA Solar Technology, Germany
- Bernhard Ernst
  Bernhard Ernst Energy Consulting, Germany
- Craig Hart
  IEA, France
- Tomas A. Kåberger
  Chalmers University of Technology, Sweden
- Sonja Klingert
  University of Mannheim, Germany
- Nickie Menemenlis
  Hydro Québec – IREQ, Canada
- Lars Nordström
  KTH – Royal Institute of Technology, Sweden
- Lennart Söder
  KTH – Royal Institute of Technology, Sweden
- Bernhard Wille-Haussmann
  Fraunhofer ISE, Germany

INVOLVEMENT OF TSOs

The Renewable Energy Grid Integration Week takes place in a different location each year in order to highlight that region's renewable energy grid integration challenges and solutions as well as the features of the hosting transmission grid. The local transmission system operators have the unique opportunity to represent their host country and share their lessons learned with the international audience during the week.

The following table provides an overview of the involvement of TSOs at past workshops:

Location, Year	Role of TSO	Number of Presentations by TSOs
Copenhagen 2023	-	Expected: 13+ | i.e. Energinet, TenneT, RTE France, Hydro Quebec, R&D Nester/REN
The Hague 2022	TenneT TSO: Sponsor, Presentations, Partner in Opening / Keynote Session, Organizer of dedicated sessions	23 | i.e. Energinet.dk, EPRI, Fingrid Oyj, RTE France, TenneT TSO, TransnetBW WZDCL Bangladesh
Berlin / Virtual 2021	Elia / 50Hertz, Sponsor, Presenters and Partner in Opening Session, Organizer in dedicated session	15 | i.e. Amprion, Transnet BW, TenneT, Elia / 50Hertz, Fingrid, REN
Virtual 2020	-	11 | i.e. Amprion, Elia, National Grid, Energinet, REE, TenneT TSO, Svenska kraftnät, ScottishPower Renewables, ERCOT, National Grid, RTE France
Dublin 2019	EirGrid / SONI: Sponsor, Presenters, Partner in Opening Session, Study Trip Organizer	22 | i.e. EirGrid, SONI, National Grid, Amprion, REE, Energinet.dk, ERCOT
Stockholm 2018	-	28 | i.e. Vattenfall, TenneT, Eirgrid, Ercot
Berlin 2017	TenneT: Sponsor, Presenters and Partner in Opening Session	21 | i.e. REE, Energinet.dk, ERCOT, HEDNO
Vienna 2016	Austrian Power Grid: Sponsor, Presenters, Study Trip Organizer	17 | i.e. Nationalgrid, Hydro Québec, TRE France
Brussels 2015	Elia Group / 50Hertz: Sponsor and Study Trip Organizer	10 | i.e. Amprion, ENTSO-E, Elia

WHAT WE OFFER

Holding Keynote presentations

Giving several presentations in the course of the events

Organizing entire sessions

Organizing study trips to project sites or their facilities

Taking part in the panel discussions at the end of the event

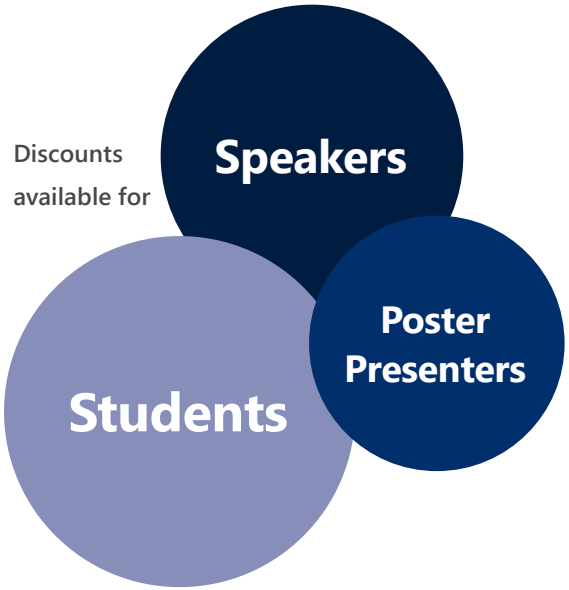
We are very open to **YOUR** preferred involvement in the conference.
Just let us know in which way you would like to contribute !

Structure of Participation Fees

In order to win participants of every target group to form the inspiring mixture of **speakers, poster presenters and regular visitors** from different research sectors and institutions the participation fees are based on a mixed calculation to address the needs of every target group specifically: **students, university staff, associations, NGOs, public institutions, companies.**

Students may register for the highest discount as well as speakers and poster presenters.
Regular participants are offered three different time schemes – early bird, regular registration, late registration.

For last minute participants, we also offer on-site registration.



Communicating the Workshops

Although a large portion of our participants from previous workshops are "repeaters" (40-50%) or came by recommendation (30-35%), we constantly strive for gaining new participants. Therefore, the workshop communication makes use of different communication channels:

Cooperations with Universities

In order to maintain our goal of providing a platform not only for industry professionals but also for university members, we have cooperations with several local academic institutions. This will also give other participants the opportunity to learn more about results from ongoing research. For sponsors, this is a great way to network with young professionals who have a strong academic background.

Websites

The basis for all information regarding the symposium and the workshops are the event websites (below right): They compile information about the workshop's history, past agendas, papers and the information about the current program, venue, and accommodation opportunities.

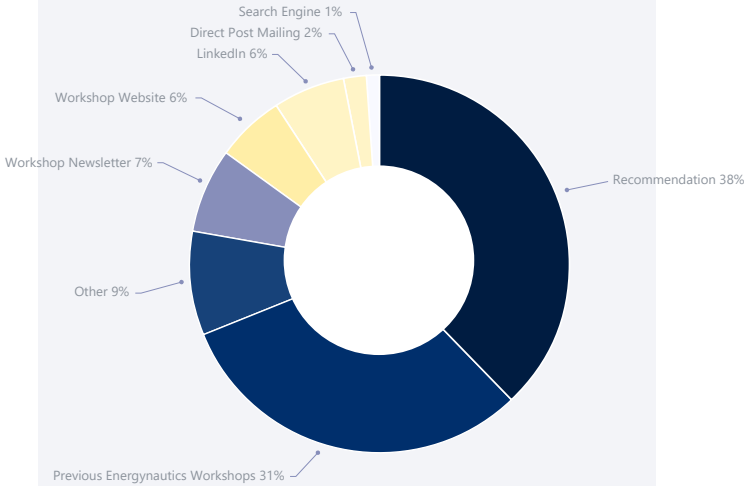
Social Media

Different aspects of the workshops are communicated on several social media platforms (and their groups) such as:

LinkedIn

HOW PARTICIPANTS BECAME AWARE

Wind & Solar Integration Workshop | Copenhagen 2023



Number of clicks:

mobilityintegrationsymposium.org
700 - 1,000 visitors per month

windintegrationworkshop.org
1,800 - 2,100 visitors per month

WORKSHOP INFORMATION CHANNELS

Newsletters

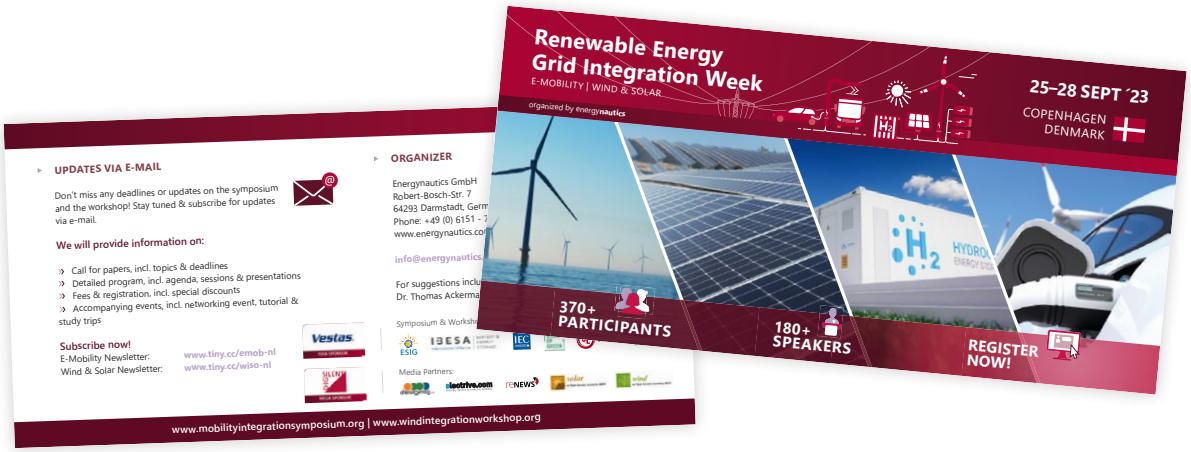
The main means of communication to disseminate the conference are regular workshop newsletters. They contain the current basic information linking to the workshop website for more detailed information.

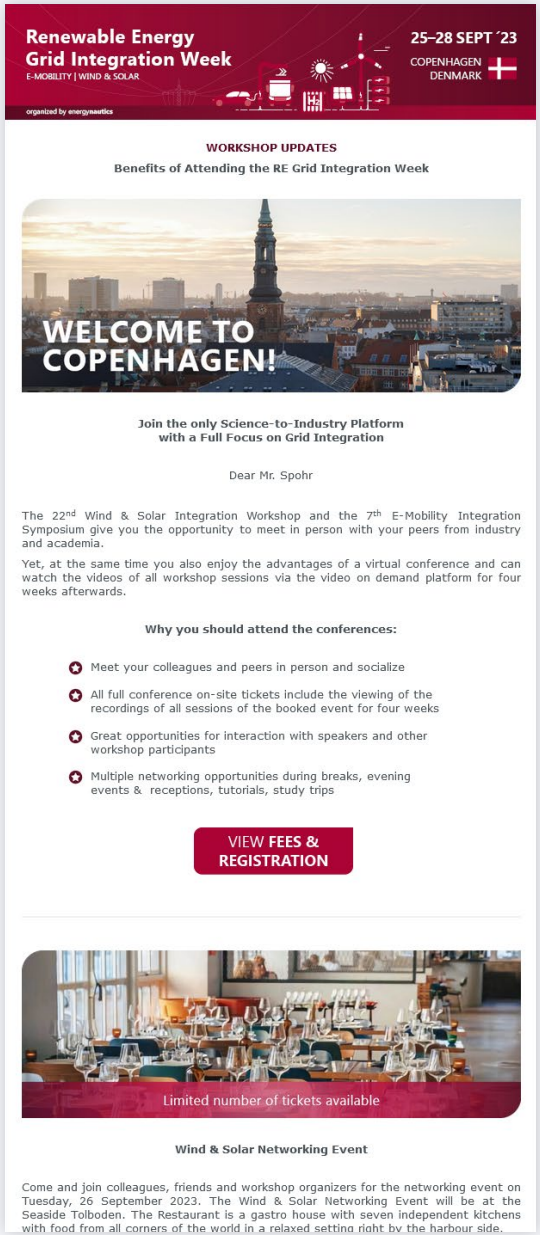
Online & Print Media

The workshop date is listed on several renewable energy event lists and calendars on- and offline. Furthermore, advertisements get published regularly to promote the workshop.

Leaflets

Paper leaflets / flyers are produced for distribution among interested institutions and participants.





Quality Control & Feedback

The participants of every workshop receive the opportunity to give their feedback after the event answering a number of questions regarding the quality of the workshop program, venue, location and organization.
The workshop team evaluates the answers thoroughly and initiates changes wherever applicable. Many new ideas are making its way to us this way.

THE RENEWABLE ENERGY GRID INTEGRATION WEEK IS IMPORTANT FOR ME BECAUSE...

I got an overview about the different points of view and a feeling what is common sense.

To do once a year a step out of the box.

It gave me the opportunity to interact with industry experts and gained some insightful knowledge related to how to bridge the gap between the work required in industry and work done in academia.

It is an important forum for the exchange of ideas, experience and challenges; where forecasting is still considered part of grid integration and where it is possible to get a better picture of the various challenges we face in the transformation to a sustainable energy system.

Best mixture between scientific depth and relevance to practice

I see which topics are relevant and timely.

Its the most important event in relation to renewable energy grid connection - very high technical expert participation.

I can keep updated about relevant topics regarding the integration of renewable energy sources from highly qualified panelists and audience

Your Benefits as Sponsor

Being sponsor of one or several events of the Renewable Energy Grid Integration Week not only raises awareness for your company among participants but also gives you several advantages:

Image building in the energy sector

- Get connected with the Renewable Energy Grid Integration Week– a platform where key players of the energy industry meet to share experiences and discuss freely without political agenda or implications
- Gain recognition as a key facilitator of neutral technical communication between competitors and energy suppliers

Meet your future employees & partners

- Find highly qualified students & professionals among participants
- Network with potential candidates
- Display your job announcements in our conference material
- Meet potential partners for new projects

Capacity Building for your team

- Train your employees on specific topics about the integration of RE
- Share & receive fresh ideas about current issues
- Find solutions for your ongoing projects in industry & academia
- Have serious discussions with worldwide experts

Sponsoring Packages

MEGA

- Your company logo on conference website, newsletters, digital papers (incl. link to your website) & sponsor overview slides during the conference
- Your ad in digital papers
- Your company information in the digital delegate bag (max. 10 MB)
- Dedicated social media post announcing you as a conference sponsor
- Your company logo on on-site banners and screens, printed flyers, printed conference agenda

FREE PARTICIPANT 1 incl. Dinner Ticket

GIGA

Additional to MEGA Sponsorship

- Your dedicated company slide before two selected sessions
- Content box in one newsletter issue
- Your corporate roll-up banner in coffee break area

FREE PARTICIPANTS 2 incl. Dinner Tickets

TERA

Additional to GIGA Sponsorship

- Your company video before a selected session/lunch break (max 30 s/5 min)
- Display banner in the coffee break area (size and format to be discussed)
- Corporate roundtable in coffee break area for technical discussions, networking during breaks and poster sessions
- One special additional logo arrangement

FREE PARTICIPANTS 3 incl. Dinner Tickets

SPONSORSHIP FEES

	8th E-Mobility Power System Integration Symposium	23rd Wind & Solar Integration Workshop
MEGA	3,000.00 EUR	5,700.00 EUR
GIGA	5,000.00 EUR	9,900.00 EUR
TERA	6,500.00 EUR	12,600.00 EUR

- All prices are net prices

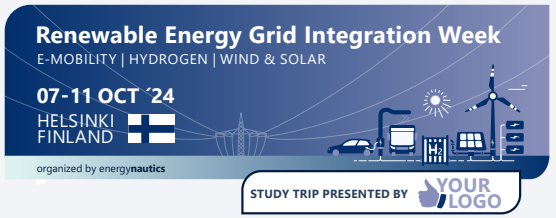
Special logo arrangement for Tera Sponsors

Increase the visibility of your company at the conferences and choose one of the following arrangements within your Tera Sponsor Package.

+	Option 1	Wind & Solar Dinner Sponsor (Your logo on displays during dinner)
+	Option 2	Coffee Break Sponsor (Your logo on coffee table displays)
+	Option 3	Study Trip Sponsor
+	Option 4	Logo on internet log-in webpage
+	Option 5	Logo on Q&A Tool used during the sessions

All conference sponsoring packages do not include tutorial, study trip or dinner tickets unless explicitly included in the benefits list.

EXAMPLES



Examples

Sponsoring two conferences will result in a 10% discount in the total sponsoring fee for both workshops.

Embedding your Logotype

HELSINKI BE A SPONSOR OCT 2024

Papers Cover

Website: Sponsors

Agenda

Sessionslide

Rollup

Newsletter

CAPACITY BUILDING

Many sponsors use the Renewable Energy Grid Integration Week as a training programme for their employees. As the premier science-to-industry platform with a full focus on renewable energy grid integration, the three conferences of the week offer numerous learning opportunities.

Take advantage of this unique opportunity to send a larger group to the events of the Renewable Energy Grid Integration Week at a discount price. We are happy to respond flexibly to your wishes – usually our sponsors prefer one of the following approaches:

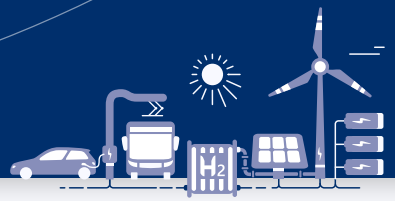
Fixed budget
You have a fixed training budget: let us know your desired price and we will make you an offer that allows as many of your staff as possible to participate in the desired workshops and symposia.

Fixed number of employees
You already have an idea of how many employees you want to send? Then we will be happy to make you a cost-effective offer for your group.

The Renewable Energy Grid Integration Week will be conducted as an on-site event as our participants value in-person meetings and discussions on-site.

If, however, you have a very large group that is unable to travel, please contact us about your options. Under certain circumstances, we may be able to provide low-key, non-moderated virtual participation at an additional cost.

SPONSORS OF PREVIOUS WORKSHOPS



EIRGRID

SONI

ENERCON
ENERGY FOR THE WORLD

SIEMENS
Ingenuity for life

SIEMENS Gamesa
RENEWABLE ENERGY

nationalgrid

Ørsted

SENVION
wind energy solutions

ESB
Energy for generations

DIGSILENT

50hertz

elia

REN
Redes Energéticas Nacionais

Vestas

seai
SUSTAINABLE ENERGY AUTHORITY OF IRELAND

GL Garrad Hassan

TenneT
Taking power further

SIEMENS

DONG energy

ABB

APG
AUSTRIAN POWER GRID

DNV·GL

VATTENFALL

Statkraft

First Solar

Energy Material Advances
A SCIENCE PARTNER JOURNAL

AMBASSADORS OF PREVIOUS WORKSHOPS

European Energy Students Network

MEET IN IRELAND

Fáilte Ireland
National Tourism Development Authority

TU WIEN
TECHNISCHE UNIVERSITÄT WIEN

UCD ENERGY INSTITUTE

TU Delft

UL Solutions

IET The Institution of Engineering and Technology

ESIG

Wind EUROPE

POWER CIRCLE
Electricity for sustainable energy

Renewables Grid Initiative

IEC

entsoe

iea International Energy Agency

htw
Hochschule für Technik und Wirtschaft Berlin
University of Applied Sciences

WindJobs
RenewableEnergyJobs

FH University of Applied Sciences
TECHNIKUM WIEN

DE OUDE BIBLIOTHEEK ACADEMY

AEE
Spanish Wind Energy Associaton

HOMER Energy

IET Publishing
The Institution of Engineering and Technology

STandUP for WIND

EUREC
The Association of European Renewable Energy Research Centres

EWEA
THE EUROPEAN WIND ENERGY ASSOCIATION

EPIA
European Photovoltaic Industry Association

SolarPower Europe

BEM eMobilität
Bundesverband eMobilität

FRIENDS OF THE SUPERGRID

EREF
European Renewable Energies Federation

SolarJobs
RenewableEnergyJobs

eMO

ISES
International Solar Energy Society

e-Refinery
Towards sustainable production of chemicals and fuels

IBESA
International Alliance
BATTERY & ENERGY STORAGE

PLATFORM FOR electromobility

See you in Finland - Tervetuloa

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