

Renewable Energy Grid Integration Week

E-MOBILITY | WIND & SOLAR



25–28 SEPT 2023

COPENHAGEN
DENMARK



BACKGROUND INFORMATION

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Renewable Energy Grid Integration Week

The Renewable Energy Grid Integration Week comprises two 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.



HISTORY



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 and the 1st Hydrogen Power System Integration Symposium was added as the third conference of the Renewable Energy Grid Integration Week. The new Hydrogen Symposium is to be established as a biennial event, thus the next edition will take place in 2024. In 2023, the topic of hydrogen will take center stage at the 22nd Wind & Solar Integration Workshop.





Renewable Energy Grid Integration Week 2023

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

PRELIMINARY TIMETABLE



7th E-Mobility Integration Symposium

Monday, 25 September

- » Symposium
- » Networking Event



22nd Wind & Solar Integration Workshop

Tuesday, 26 September

- » Workshop Day 1
- » Wind & Solar Dinner

Wednesday, 27 September

- » Workshop Day 2
- » Wind & Solar Poster & Networking Reception

Thursday, 28 September

- » Workshop Day 3

DATE & LOCATION



25–28 September 2023



Copenhagen, Denmark



Expected participants:

>120 E-Mobility
>250 Wind & Solar



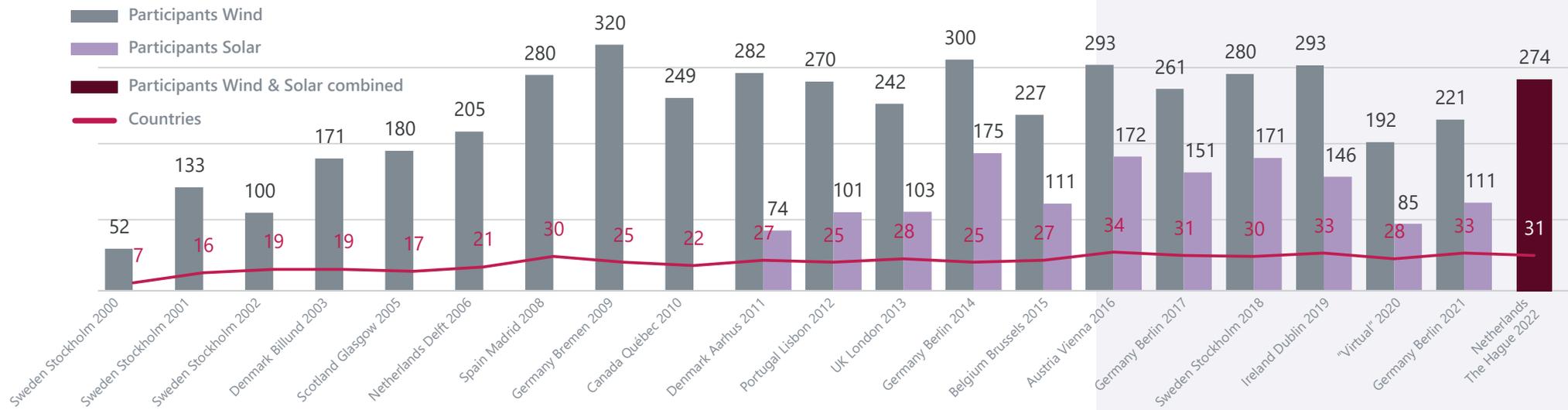
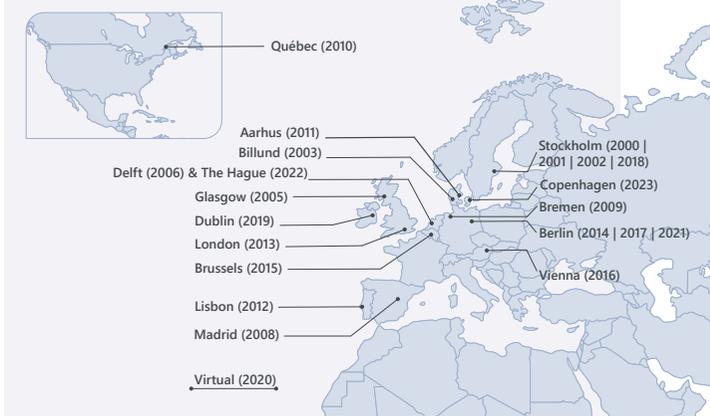
Development of the Wind & Solar Integration Workshop

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 (with Special Topics Sector Coupling & Storage) 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.



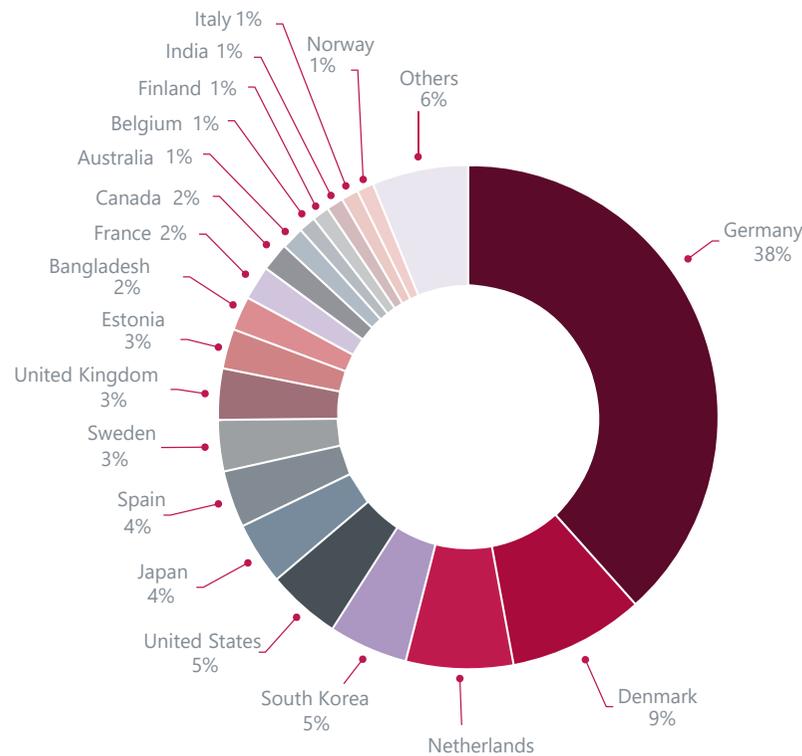


Facts & Figures

The following charts about our previous workshops show the origin of the participants regarding their country and the type of organization / company they work for.

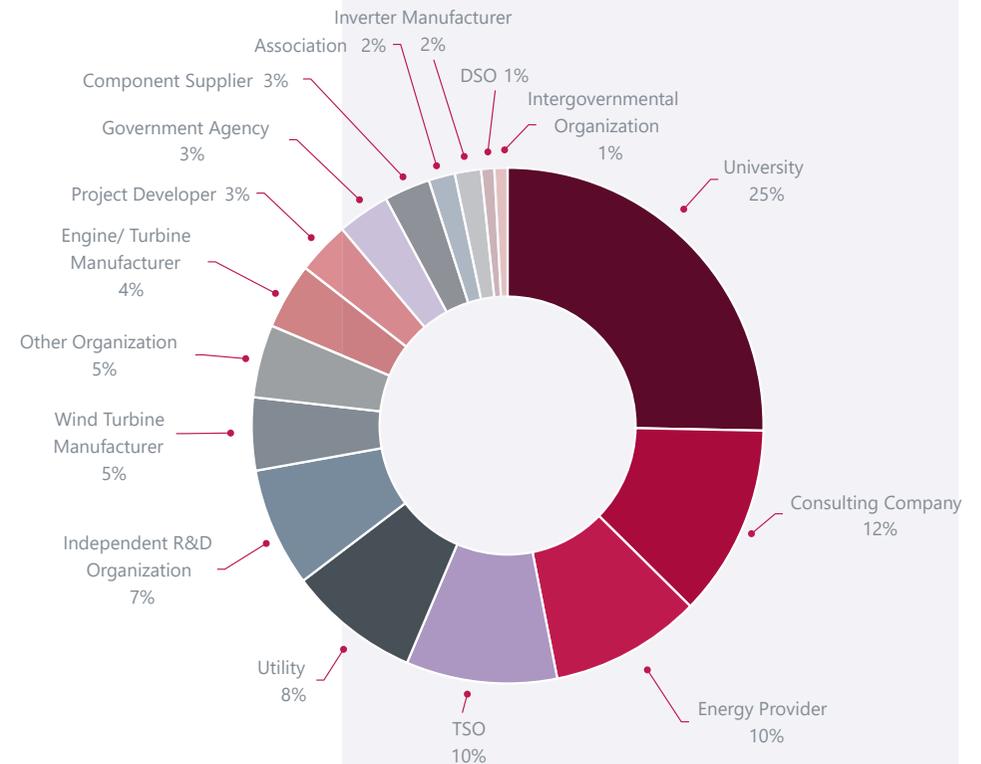
PARTICIPANTS BY COUNTRY

Wind & Solar Integration Workshop | The Hague 2022



PARTICIPANTS BASED ON ORGANIZATION

Wind & Solar Integration Workshop | The Hague 2022





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

Hydrogen Topics

- Fuel Cell Modelling / Fuel Cell Systems Modelling
- Electrolyzer Modelling
- Hydrogen Systems Modelling
- Renewable Hydrogen Technologies and Applications
- Decarbonization of Transport with Green Hydrogen
- Decarbonizing the Industrial Processes
- Energy System Management with Hydrogen





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.

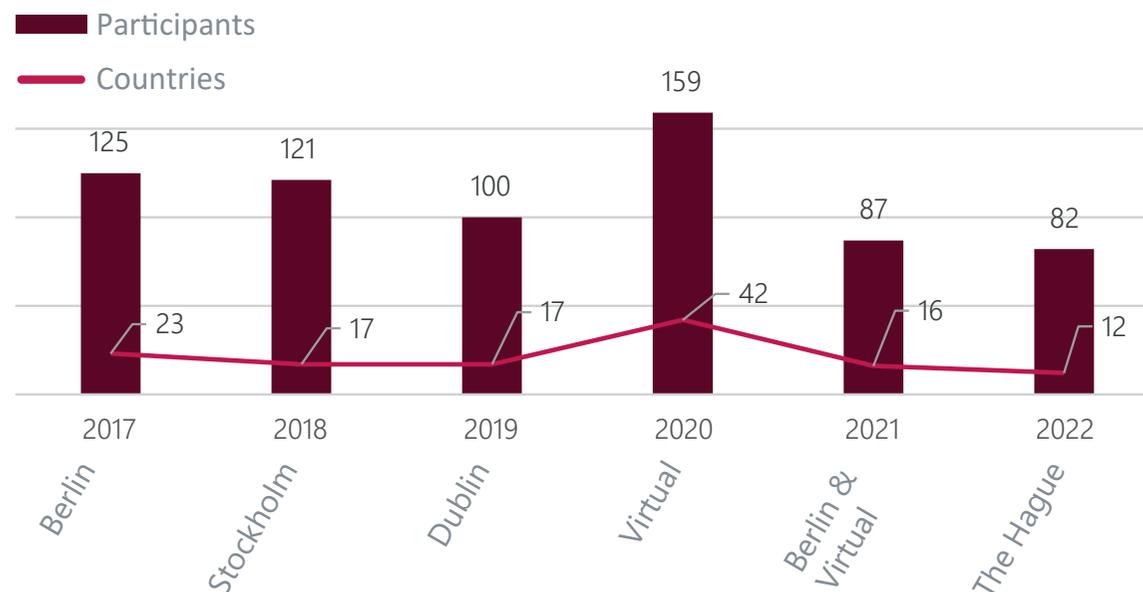
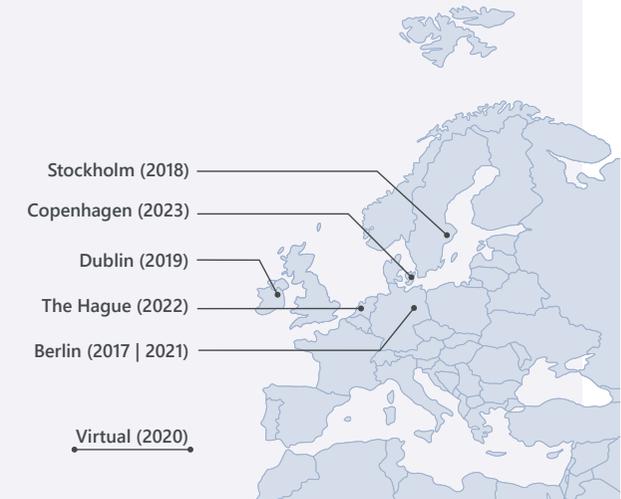
- Thomas Ackermann
Energynautics, Germany
- Sigrid Bolik
Siemens, United Kingdom
- Roland Bründlinger
AIT – Austrian Institute of Technology, Austria
- Peter W. Christensen
Atkins SNC-Lavalin, Denmark
- Kaushik Das
DTU, Denmark
- Jaap de Boer
Energy Watch, Netherlands
- Julian Eggleston
DigSILENT Pacific, 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 Technology, 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



Development 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 E-Mobility 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.



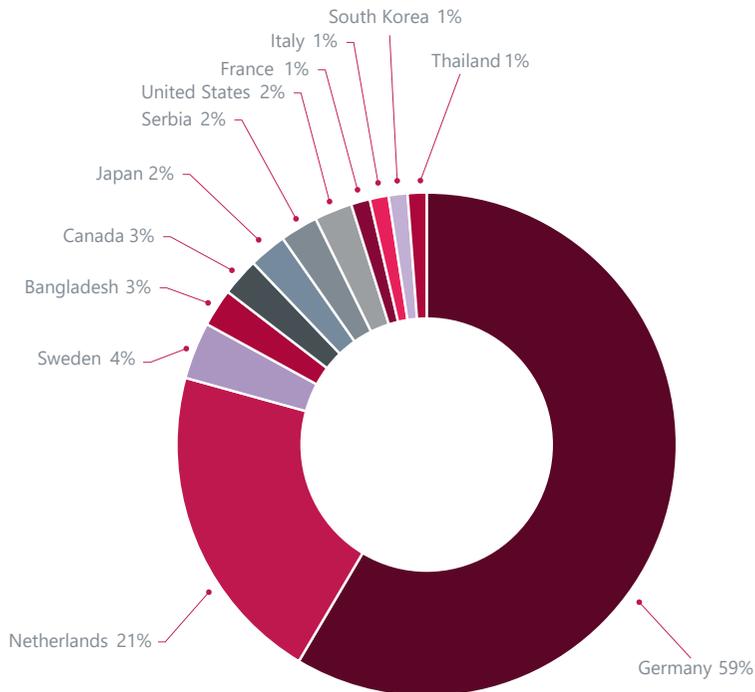


Facts & Figures

The following charts about our previous workshops show the origin of the participants regarding their country and the type of organization/company they work for.

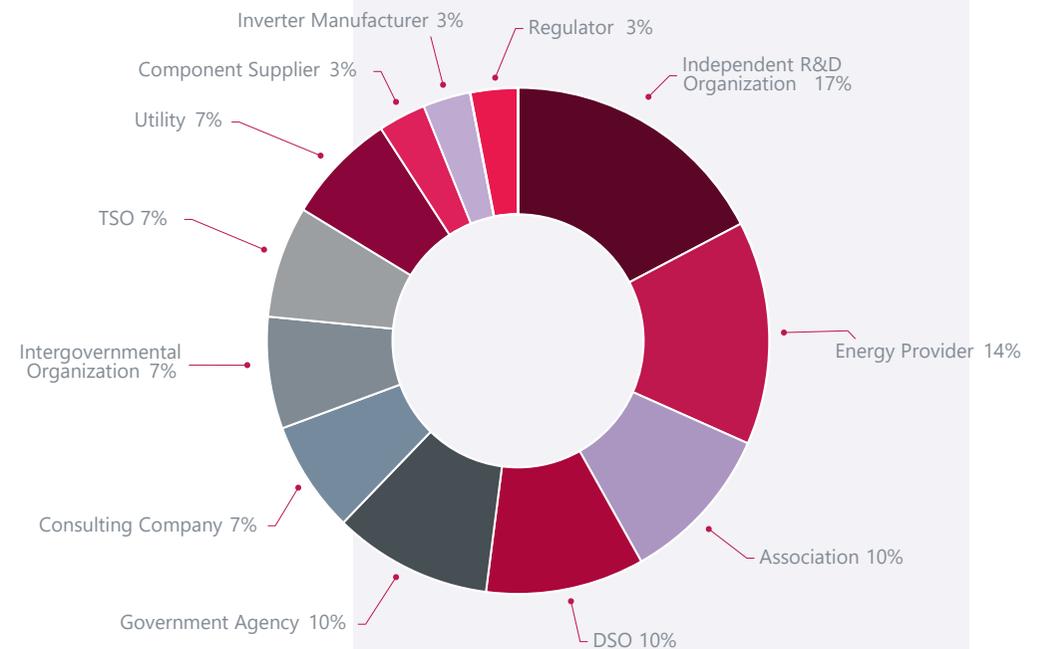
PARTICIPANTS BY COUNTRY

E-Mobility Power System Integration Symposium | The Hague 2022



PARTICIPANTS BASED ON ORGANIZATION

E-Mobility Power System Integration Symposium | The Hague 2022





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
eMIS, 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
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
Berlin 2014	50Hertz: Sponsor, Presenter in Opening Session	11 i.e. FinGrid, Vattenfall, Amprion, TenneT

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 !





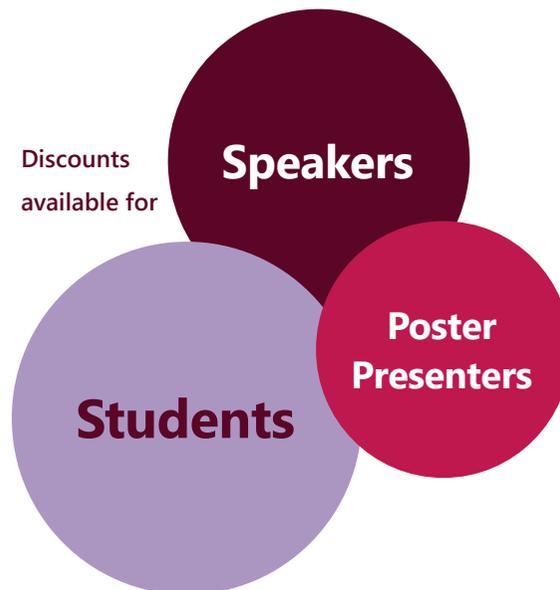
Structure of Participation Fees

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

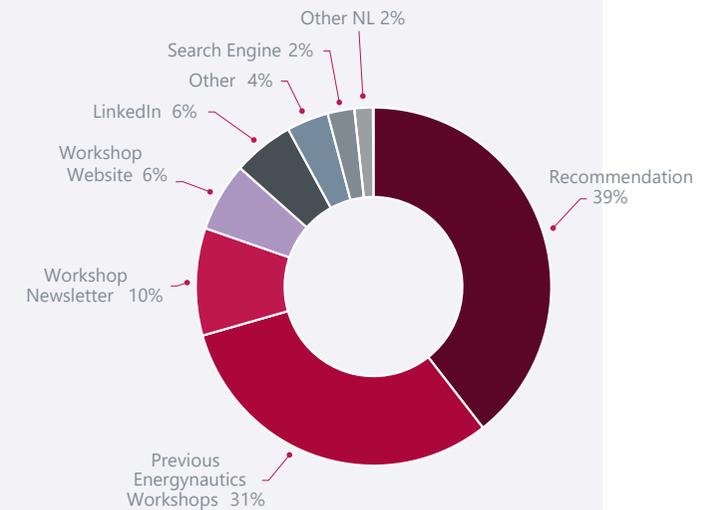


Different aspects of the workshops are communicated on several social media platforms (and their groups) such as:

 [LinkedIn](#)

 [Twitter](#)

HOW PARTICIPANTS BECAME AWARE



Number of clicks:

mobilityintegrationsymposium.org

700 - 1,000 visitors per month

windintegrationworkshop.org

1,800 - 2,100 visitors per month



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.

Direct Mailing

Previous workshop participants will receive information about the Call for Papers and later on about the program via mail.

Renewable Energy Grid Integration Week 2022
E-Mobility | Hydrogen | Wind & Solar
organized by energymatics

10 - 14 OCT 2022
DELFT / THE HAGUE
NETHERLANDS

WORKSHOP UPDATES
Wind & Solar Agenda published

130+ Sessions | 130+ Speakers

Dear Ms. Moser

It is our great pleasure to announce that the preliminary agenda for the 21st Wind & Solar Integration Workshop, which will take place from 12 - 14 October 2022 in The Hague, Netherlands has now been published.

In 30+ sessions, more than 130 speakers will share their insights on grid integration of variable renewable energies. A special focus will again be on Grid Forming as well as on Hydrogen, Hybrid Power Systems and Forecasting. The agenda of the NEW 1st Hydrogen Power System Integration Symposium that will feature many insightful presentations by invited speakers is set to be published next week.

Registration for all three events of the Renewable Energy Grid Integration Week is now open!

[VIEW WIND & SOLAR AGENDA](#) [VIEW E-MOBILITY AGENDA](#) [VIEW FEES & REGISTRATION](#)

NEW: Hydrogen Power System Integration Symposium

Submit your abstracts until 15 MAY

Location: Delft / The Hague

Major Speaker Discounts

Register by 1 August for Early Bird Discounts!

Online registration is now open for the

6th E-Mobility Power System Integration Symposium | 10 Oct 2022
1st Hydrogen Power System Integration Symposium | 11 Oct 2022
21st Wind & Solar Integration Workshop | 12 - 14 Oct 2022

Register early to obtain the early bird discounts and to meet all visa-related deadlines (if applicable). We are happy to provide a confirmation letter of your processed registration, which you can use for visa application.

[REGISTER NOW!](#)

Renewable Energy Grid Integration Week 2022
E-Mobility | Hydrogen | Wind & Solar
organized by energymatics

10 - 14 OCT 2022
DELFT / THE HAGUE
NETHERLANDS

NEW: Hydrogen Power System Integration Symposium

Submit your abstracts until 15 MAY

Location: Delft / The Hague

Major Speaker Discounts

Submission Information:
If you would like to present a paper during the Renewable Energy Grid Integration Week 2022, please visit our websites:
www.mobilityintegrationsymposium.org
www.windintegrationworkshop.org
To submit a paper, upload an abstract of maximum 3,000 characters (free style) between 01 February and 15 May 2022. Final papers must then be submitted online by 8 September 2022. For more deadlines, please see the infographic inside.

- As the conference language is English, all abstracts have to be written in English.
- Speakers and poster presenters will pay a reduced participation fee.
- All participants are responsible for paying their own travel and hotel expenses.

The 1st Hydrogen Symposium invited speakers



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 OPTIONS



Sponsoring Packages



SPONSORSHIP FEES

<p>7th E-Mobility Power System Integration Symposium</p> <p>3,000.00 EUR</p>	<p>22nd Wind & Solar Integration Workshop</p> <p>5,500.00 EUR</p>
<p>7th E-Mobility Power System Integration Symposium</p> <p>5,000.00 EUR</p>	<p>22nd Wind & Solar Integration Workshop</p> <p>9,500.00 EUR</p>
<p>7th E-Mobility Power System Integration Symposium</p> <p>6,500.00 EUR</p>	<p>22nd Wind & Solar Integration Workshop</p> <p>12,000.00 EUR</p>

All prices are net prices

SPECIAL FOR TERA SPONSOR



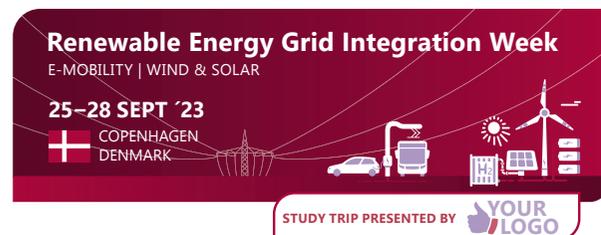
Special logo arrangement for Tera Sponsors

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
+	Option 2	Coffee Break Sponsor
+	Option 3	Study Trip Sponsor
+	Option 4	Logo on internet log-in webpage
+	Option 5	Distribution of labelled pads & pens

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

EXAMPLES:



SPONSORING DISCOUNTS

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

Embedding your Logotype

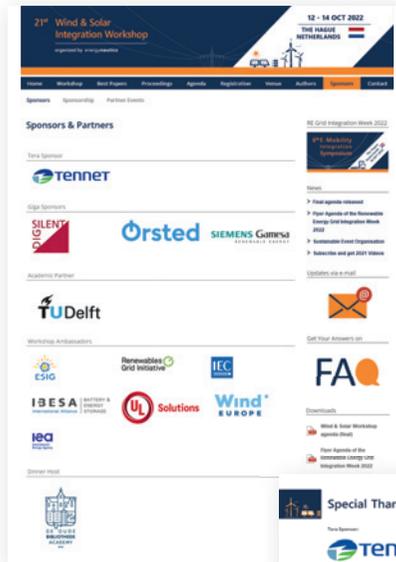
See here some examples from the last workshop on where your logotype could be positioned.



Newsletter



Website: Sponsors



Agenda



Sessionslide

Rollup



Papers Cover



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



AMBASSADORS OF PREVIOUS WORKSHOPS





See you in Denmark – Velkommen



THOMAS ACKERMANN
Energynautics Founder & CEO

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Email: t.ackermann@energynautics.com
Web: www.energynautics.com



KATHRIN MOSER
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Phone: +49 (0)6151 78 58 62
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Web: www.energynautics.com

ORGANIZER

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