



IEA Wind TCP

IEA Wind Task 28 Annual Progress Reports for IEA Wind TCP ExCo Meeting 91

Task 28: Social Science of Wind Energy Acceptance

26 April 2023

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1 Background and Goals

Task Description: Social Science of Wind Energy Acceptance

The fourth and final phase of SoSWEA is from May 2020 – April 2024.

Within the participating countries and elsewhere, social and community acceptance¹ continue to be key barrier to the development of wind energy projects during the global energy transition. In the face of the intensifying and dynamic challenge in most parts of the world, there is and will continue to be added value in Task 28 and learning how researchers around the globe are learning from each other and applying solutions at local, regional, and country-wide levels, so countries can meet their climate and equity goals. Social scientists and others participating in this task conduct research and share findings to increase the knowledge base among Task 28 members. They collaborate with partner organizations as well as industry and disseminate high quality data and analyses for decision-makers, researchers, energy planners, developers, and

¹ For the purposes of the task, we defined social acceptance as ‘a favourable or positive response (including attitude, intention, behaviour and – where appropriate – use) relating to proposed or in situ technology or social technical system by members of a given social unit (country or region, community or town, household, organisation’ (Upham, 2015, p107)). The term social acceptance is falling out of favour and will be replaced after this phase of the task, to better align with local communities.

others.

Objectives

- Ensuring diverse participation from a larger number of countries and a variety of researchers and social scientists;
- Adopting new methods of knowledge sharing based on more proactive involvement of Task participants and new online webinar and meeting tools;
- Greater emphasis on maximising the value of the Task outputs through engagement of end users and broad systems thinking;
- Exploration of increasing the Task's reach to emerging economies;
- Increasing the profile and awareness of Task 28 by proactive outreach and on-line dissemination to and through wind and other renewable energy stakeholders globally.

The two tracks for Task 28 research and dissemination are: *Research Synthesis and Gap Analysis* and *Research Dissemination, Facilitation and Knowledge Exchange*. The tracks align with the division of past Task 28 efforts and participant country priorities for the task.

Track 1: Research Synthesis and Gap Analysis

1. Innovations in value additions and benefit schemes from wind projects – what have we learned from Phases 1-3, and where are current gaps in research? (led by Jan Hildebrand, Germany)
2. Understanding costs associated with community engagement and opposition (led by Joe Rand, USA)
3. New and emerging issues in wind energy acceptance (e.g., supersized turbines, airborne wind, floating offshore wind (led by Matilda Kreider, USA)

Track 2: Research Dissemination, Facilitation, and Knowledge Exchange (ensuring research is shared globally)

4. Increased global engagement and knowledge exchange of wind energy acceptance and social science (led by multiple participants)
5. Offshore Wind Working Group on Social Science and Wind Energy Acceptance Issues: expert convening exchange and information dissemination (led by Garry Keegan, Ireland)

Task Time Plan and Milestones:

Milestones, the Work Plan, and Deliverables can also be found on our web page: [Task 28 Publications | IEA Wind TCP \(iea-wind.org\)](https://www.iea-wind.org/publications/task-28-publications)

Table 1. Milestone Table: Work Plan Milestones, Contributors, and Due Dates

Deliverable (DV) No.	Deliverable	Contributors	Quarter Due
T1 WP1 DV1	Report & Online Briefing	JOA, and Denmark, Germany, Japan, US, Canada, Ireland.	Q4, 2021
T1 WP2 DV1	Literature Review	JOA and US, Japan, Ireland, Sweden, Switzerland, Finland	Q3, 2021
T1 WP2 DV2	Online Briefing Document	JOA and US, Japan, Ireland, Sweden, Switzerland, Finland	Q1, 2022
T1 WP2 DV3	Report and Presentation for Conference or Webinar	OA and US, Japan, Ireland, Sweden, Switzerland, Finland	Q1, 2024
T1 WP3 DV1	Report and Briefing Document	OA and US, Japan, Ireland, Germany	Q4, 2022
T1 WP3 DV2	International Web-based convening (collaborating with industry)	OA and US, Japan, Ireland, Germany	Q3, 2023
T2 WP4 DV1-3	Webinars and In-Person Meetings	OA and all participants	Q2, 2021, '22 & '23
T2 WP4 DV4	Conference Social Science Track or Session	JOA and all participants	Q3, 2021
T2 WP4 DV5	Multiple Tracks / Sessions at Engineering and technology Conferences	JOA and all participants	Q4, 2022
T2 WP4 DV6	Joint Meetings with IEA Solar & other Renewables	JOA and all participants	Q4, 2022
T2 WP4 DV7	Fact-sheet and/or Joint Webinar	OA and all participants	Q4, 2023
T2 WP4 DV8	Peer Reviewed Social Science of Wind Energy Acceptance Database (Excel-based) - CANCELLED	JOA and all participants	Q4, all years
T2 WP5 DV1	Best Practice Publication	JOA and Ireland, US, Canada, Japan, UK, Denmark, Norway, Netherlands, Germany.	Q1, 2021
T2 WP5 DV2-8	Present at International Workshops, Seminars, Conferences. Awareness Building via Industry Publications	OA and Ireland, US, Canada, Japan, UK, Denmark, Norway, Netherlands, Germany.	Q2 & 4, '21; Q1, 2 & 4, '22 & '23; Q2, '24
T2 WP5 DV9-14	Fact-sheets	OA and Ireland, US, Canada, Japan, UK, Denmark, Norway, Netherlands, Germany.	Q4, 2021; Q2 & 4, '22, '23; Q2, 2024

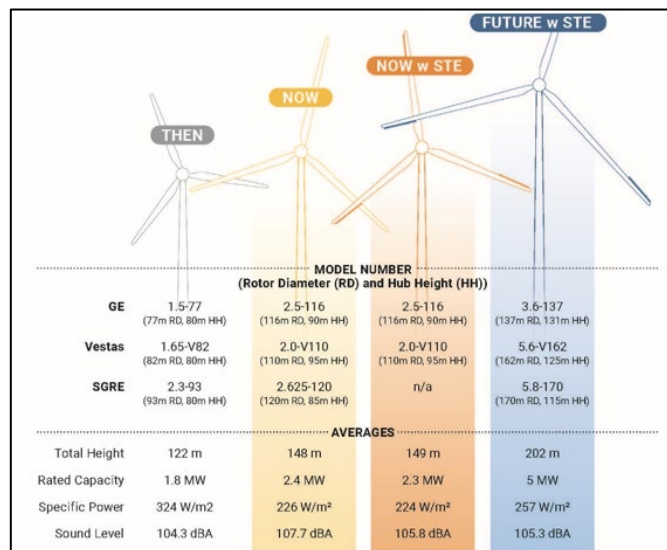
The blue boxes indicate completed deliverables. Black boxes indicate ongoing deliverables (started but not finished) or deliverables cancelled due to lack of funding. Yellow boxes indicate scheduled deliverables with upcoming due dates (or a mix of scheduled and completed).

Table 2. Work Packages, Deliverables, Dates

Year	2020 (start 1 st May)				2021				2022				2023				2024		(end 30 April)	
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2		
Work Package 1:								DV1								Final				
Work Package 2:							DV1		DV2										DV3	
Work Package 3:												DV1							DV2	
Work Package 4:						DV1		DV8	DV4	DV2		DV5		DV3	DV6	DV8	DV4			
Work Package 5:					DV1	DV2		DV3		DV4		DV5		DV6		DV7				DV8
T28 In-Person Meetings								mini		mini		Oct	mini	May		Oct	mini			
ExCo or T28 Virtual Meetings				Oct		May		Oct		May		Oct		May		Task and ExCo				

Milestones for past 6 months:

Milestones, task meetings, and deliverables for the past six months have been met. These are also shown in the above charts.



Source: Hoen, B., Darlow, R., Haac, R., Rand, J., & Kaliski, K. (2023). Effects of land-based wind turbine upsizing on community sound levels and power and energy density. *Applied Energy*, 338, 120856. <https://doi.org/10.1016/j.apenergy.2023.120856>

- Work Package 3. Joe Rand (US Representative) published a report and provided a briefing (public webinar) about the size and scaling of wind turbines, as an emerging issue (large scale) that communities will need to consider.
- Work Package 3. Matilda Kreider is researching end of turbine life social acceptance issues and will provide a peer reviewed report and webinar on this topic in 2023.
- Work Package 4. There were multiple social science and social acceptance tracks at conferences such as the *North American Wind Energy Academy* and Europe's *Wind Energy Science Conference* where numerous Task 28 representatives presented.
- Work Package 4. The database of peer reviewed social science/acceptance literature has not been funded and therefore will not be completed/published. This milestone was contingent on funding.
- Work Package 5. There are several fact sheets on the social acceptance of wind energy, now available in the Netherlands, Germany, and on our website. More are forthcoming as an outcome of the Technical Experts Meeting #109 social science track.

2 Progress Toward Goals

Progress: The technical progress in relation to the Task objectives, milestones, and deliverables planned in the approved Task Proposal.

Task 28 successfully completed Phase III in 2020 and commenced Phase IV after its proposed work programme May 2021 – April 2024 was approved by IEA Wind TCP Exco Committee. Phase IV has now been successfully underway for the past three years May 2022 – April 2023 and is on programme in terms of planned deliverables and activities (see Figure 1. Milestone Table).

Recent Results: During Task 28 Phase IV Year 4, as planned, several meetings and collaborations have taken place with many publications, presentations and dissemination delivered at research and academic conferences, to policymakers, to industry, and to the public.

Our full official task meetings were in October of 2022 (virtual) and in Nagoya, Japan hybrid in-person and virtual, in May of 2023. In addition, we had multiple members of the task meet and present at the North American Wind Energy Academy conference in the U.S. in the fall of 2022, in Germany in the summer of 2022 at the Wind Energy Science Conference, and at the IEA Technical Experts Meeting 109 in the U.S. in winter of 2023. Publication examples are listed here:

- Haac, R, R Darlow, K Kaliski, J Rand, and B Hoen (2022). *In the shadow of wind energy: Predicting community exposure and annoyance to wind turbine shadow flicker in the United States*. Energy Research and Social Science Volume 8; Number 102471. Download from: Gill, E., & Rand, J.

(2022). *Understanding Costs Associated With Wind Energy Opposition and Stakeholder Engagement* (No. NREL/BR-5000-82428). National Renewable Energy Lab.(NREL), Golden, CO (United States). <https://www.osti.gov/biblio/1862950>

- Hübner G V Leschinger Florian J.Y. Müller Johannes Pohl 2023. *Broadening the social acceptance of wind energy – An Integrated Acceptance Model*.
- Florian J Yanic Müller^a Valentin Leschinger^a Gundula Hübner^{ab} Johannes Pohl 2023. *Understanding subjective and situational factors of wind turbine noise annoyance*. [Energy Policy, Volume 173](https://authors.elsevier.com/a/1gD0Z14YGgloyV), February 2023, 113360 1. <https://authors.elsevier.com/a/1gD0Z14YGgloyV>
- Kierkegaard, J, D Rudolph, S Nyborg, T Cronin. 2022. *The landrush of wind energy, its socio-material workings, and its political consequences: On the entanglement of land and wind assemblages in Denmark*. Sage Publishing.
- Rogge, K., Stadler, M, de Geus, T, Hielscher, S, Wittmayer, Julia, Broich, Annalena, Kotler, Adrienne, Mischkowski, Niklas, Stasik, Agata, Ranville, Adélie, and Vernay, Anne-Lorène. 2023. *Fit for social innovation? Policy reflections for EU energy and climate policy making*, *Oxford Open Energy*, Volume 2, 2023, oiac010.
- Bingaman, S., Bidwell, D., and Firestone, J. (2022) *Winds of Change: Examining Attitude Shifts Regarding an Offshore Wind Project*, *Journal of Environmental Policy & Planning*, Vol. 25, 1, 55-73.
- deSain, M. 2023 forthcoming. *The relation between visual impact and acceptance of wind turbines – a literature review (English Translation)*.
- Russel A. and Firestone J., (2022) *More Than a Feeling: Analyzing Community Cognitive and Affective Perceptions of Ocean Renewable Energy Infrastructure*. *Renewable Energy*, 193: 214-224.
- Hoen, B., Darlow, R., Haac, R., Rand, J., & Kaliski, K. (2023). *Effects of land-based wind turbine upsizing on community sound levels and power and energy density*. *Applied Energy*, 338, 120856. <https://doi.org/10.1016/j.apenergy.2023.120856>
- Elmallah, S., & Rand, J. (2022). "After the leases are signed, it's a done deal": Exploring procedural injustices for utility-scale wind energy planning in the United States. *Energy Research & Social Science*, 89, 102549. <https://doi.org/10.1016/j.erss.2022.102549>
- Haac, R., Darlow, R., Kaliski, K., Rand, J., & Hoen, B. (2022). *In the shadow of wind energy: Predicting community exposure and annoyance to wind turbine shadow flicker in the United States*. *Energy Research & Social Science*, 87, 102471. <https://doi.org/10.1016/j.erss.2021.102471>
- Roux, J.P., Fitch-Roy, O., Devine-Wright, P. and Ellis, G. (2022). "We could have been leaders": the rise and fall of offshore wind energy on the political agenda in Ireland. *Energy Research and Social Science*, 92, 102762.
- Maruyama, Y and C Doedt. 2023. *The mega solar Twitter discourse in Japan: Engaged opponents and silent proponents*. [Energy Policy](https://doi.org/10.1016/j.enpol.2023.113360), 2023, vol. 175, issue C.
- Wade, R and G Ellis. 2022. *Reclaiming the windy commons: landownership, wind rights, and the assetization of renewable resources*, *Energies* 15: 3744.
- Oteri, Frank, H. Tinnensand, C. Constant, M. Kreider. National Renewable Energy Laboratory. *End of Service Wind Turbine Guide*. (2023) Website: [WINDExchange: End of Service Wind Turbine](https://www.nrel.gov/wind/EndofServiceWindTurbineGuide/)

Importantly, Task 28 members are working on challenges communities experience with installed wind and working with potential host communities on difficulties they see before wind is deployed in their area (possibly leading to a boycott or other project halt). The social scientists are working closely with industry, leveraging lessons learned in member countries, to solve problems such as annoyance due to wind turbine lighting or shadow flicker as well as landfill issues and sound. The work our participants take part in will help smooth the often bumpy road to increased wind development and also help to ensure that new energy infrastructure is deployed in a more equitable way than it has been in the past.

3 Table 3. List of Participants

A table of participants and their organizations should be included. This is very helpful to country representatives who may not know all the participants from their country that are benefiting from the Task.

	Country	Lead Participant	Organization	Member	Contact Email
1	Ireland	John Aston	AstonECO Management	Yes	john.aston@astoneco.com
		John McCann	Sustainable Energy Authority of Ireland	Yes	John.McCann@seai.ie
2	United States	Suzanne Tegen, OA Center for the New Energy Economy	Colorado State University and The National Renewable Energy Lab	Yes	Suzanne.tegen@colostate.edu
		Joe Rand, Lawrence Berkeley National Laboratory	U.S. Department of Energy	Yes	jrand@lbl.gov
3	Germany	Gundula Huebner, MSH Medical School Hamburg & University Halle-Wittenberg	Federal Ministry for Economic Affairs and Climate Action (BMWK)	Yes	gundula.huebner@psych.uni-halle.de
		Jan Hildebrand, IZES gGmbH, Saarbrücken	Federal Ministry for Economic Affairs and Climate Action (BMWK)	Yes	hildebrand@izes.de
4	Switzerland	Saskia Bourgeois	Swiss Federal Office of Energy (BFE)	Yes	Saskia.bourgeoisstoekli@bfe.admin.ch
5	Japan	Yasushi Maruyama, Nagoya University	National Institute of Advanced Industrial Science and Technology	Yes	ym@nagoya-u.jp

6	Denmark	Kristian Borch Tom Cronin David Rodolph	DTU Wind Energy Technical University of Denmark Department of Wind Energy	Yes	kristianb@plan.aau.dk
7	Canada	Jamie Baxter	Western University, Canada	Yes	jamie.baxter@uwo.ca
8	Finland	Lasse Peltonen	Akordi	Yes	lasse@akordi.fi
9	France	Magali Collin as of 2022	Total Energies	Starting in 2023	magali.collin@totalenergies.com
10	Sweden	Amanda Ross as of 2023	Swedish Energy Agency	Starting in 2024	amanda.ros@energimyndigheten.se

4 Statement of Accounts and Value of Contributions

The table below shows the estimated costs for the Joint Operating Agent activities, which include coordination, management, reporting, and travel. The annual contribution per participant country is €8,000 based on at least 8 participants contributing for 2022/23. Should the Task successfully attract more participating countries, the cost per country for may decrease – although not in direct proportion as the administrative and supportive work also increases with each participating country and extra activities and deliverables may be decided upon due to extra participants. Some countries have more than one member, but each member is contributing hours, so the total reflects the approximate total hours. This year, Japan is hosting an in-person meeting so hours increased to reflect that. Our Canadian member had to cut hours and payment in half for one year, so that is also reflected.

Status of accounts: Money received, expended, and owed

Expenses:

Costs (in €)	Avg. Yearly Budget (€)
Labour (400-600 hours/OA);	€55,000
Travel, Accommodation, Subsistence;	€5,000
Other costs (reports, website, dissemination activities, administration, printing, finance mgmt.)	€3,000
Total	€64,000

Revenues

Country Revenues	Invoiced (2022-23)	Received
Total (Euro)	€64,000	€56,000

Cost of participating: €8,000/year per member country in years 3 and 4.

Value of in-kind activities. The responsibilities of the Joint Operating Agents relate to the international cooperation in Task 28. The Operating Agent shall not be liable for the

national efforts of the Participants even if the national efforts are in relation to the Task 28.

In addition to any obligations listed in the IEA wind agreement, Task Participants will adhere to the following obligations and responsibilities:

- Each Participant shall bear its own cost for research work, including travel expenses.
- The host country shall bear the costs of workshops and meetings of experts.
- Each Participant shall submit presentation materials and reports presented at the Task meetings to the Operating Agent for posting on the Task website. The Participants shall be given the opportunity to agree on the format of these materials.
- Each Participant will contribute to editing and reviewing T28 outputs—as determined by the Participants—along with the Task final report.

The planned effort from each participating country is estimated as follows:

Table 4: Planned effort (in hours) for each Participant for each year

Country	Start: 01.05.2020	2021-22	2022-23	End: 30.04.2024	Total
Ireland	420	380	120	120	1,040+300=1,340
United States	420	500	840	840	2,600+480=3,080
Germany	120	120	120	120	480x2=960
Finland	120	120	120	120	480
Japan	120	120	150	120	510
Denmark	120	120	120	120	480x2=960
Switzerland	120	120	120	120	480
Canada	120	120	60	120	420
Norway	Observer	Observer	Observer	120	120

Sweden	Observer	Observer	Observer	120	360
Netherlands	Observer	120	120	120	360
U.K.	Observer	Observer	Observer	120	120
Portugal	120	0	0	0	120
France	0	0	Observer	Observer	120
Wind Europe	Observer	Observer	Observer	Observer	Observer
Total					10,430

This table was filled out by assuming weeks of effort directly related to the project per active partner in each country, plus a minimum estimate for the Operating Agent.

5 New Developments Since Last Report

There are no issues only for ExCo members of participating countries except to encourage observer countries to become members.

The only issue for the whole ExCo from this task is to assist with getting observer countries (UK, Sweden, Norway, France) to be member countries, in the last year of Phase IV. Task 28 would also like the ExCo and larger IEA group to consider their ideas for social science in the TCPs after April 2024.

6 Future Milestones Plans and Deliverables for the Coming Year

The blue boxes indicate completed deliverables. Black boxes indicate ongoing deliverables (started but not finished) or deliverables cancelled due to lack of funding. Yellow boxes indicate scheduled deliverables with upcoming due dates (or a mix of scheduled and completed).

Table 5. Deliverables Table

Deliverable (DV) No.	Deliverable	Contributors	Quarter Due
T1 WP1 DV1	Report & Online Briefing	JOA, and Denmark, Germany, Japan, US, Canada, Ireland.	Q4, 2021
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T2 WP5 DV9-14	Fact-sheets	OA and Ireland, US, Canada, Japan, UK, Denmark, Norway, Netherlands, Germany.	Q4, 2021; Q2 & 4, '22, '23; Q2, 2024

7 Detailed work plan for coming year

T1 WP1: Because communities may prefer non-monetary benefits (e.g., school, roads, infrastructure), this WP will improve understanding about the menu of options and potential additions (e.g., aquaculture and artificial reefs).

T1 WP2: This work package began with a literature review, with input from multiple member countries. Funding is not available to create an online database to house this information to be used by researchers and practitioners worldwide, but participants will continue to evaluate the necessity of

such a database and to seek funding if appropriate.

T2 WP4: Two invited webinar/meetings featuring presentations. Webinars will be recorded and made available on the Task 28 website. Webinars can also be adapted for each country's needs (e.g., show or narrate the webinar with an introduction and question/answer session for the host country, in their language).

T2 WP4: In year 2023, have a track or session dedicated to the social science of wind energy acceptance at the North American Wind Energy Academy and at the conference and others. The importance of this is to have social science included in the ongoing dialog at engineering and other renewable energy conferences (not just the singular session) and to emulate the very successful knowledge exchange between social, environmental and technology-focused scientists and engineers at the Technical Experts Meeting #109. Better understanding of human and host community concerns will lead to more innovative technology and process solutions, and eventually greater acceptance and community alignment from industry and policymakers.

T2 WP5: Social scientists from DTU, University of Halle, NREL, LBNL, and others will collaborate to write chapters in the Grand Challenges of Wind Energy. In addition, they will develop new fact sheets for local communities where wind energy is a potential and policymakers (e.g., wind turbine sound, wind turbine lighting, shadow flicker).

General: Task 28 members and observers will convene to discuss the most pressing and relevant issues for social scientists going forward, in order to propose the most useful new task ideas to start in May of 2024, with ExCo and IEA approval. Task 28 OA and others will improve social media links to IEA Wind TCP to help disseminate work from our global experts.

8 Publications, presentations, dissemination

- Haac, R, R Darlow, K Kaliski, J Rand, and B Hoen (2022). *In the shadow of wind energy: Predicting community exposure and annoyance to wind turbine shadow flicker in the United States*. Energy Research and Social Science Volume 8; Number 102471. Download from:
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- Florian J Yanic Müller^a Valentin Leschinger^a Gundula Hübner^{ab} Johannes Pohl: 2023. *Understanding subjective and situational factors of wind turbine noise annoyance*. [Energy Policy, Volume 173](https://authors.elsevier.com/a/1gD0Z14YGgloyV), February 2023, 113360 1. <https://authors.elsevier.com/a/1gD0Z14YGgloyV>
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Energy, Volume 2, 2023, oiac010.

- Bingaman, S., Bidwell, D., and Firestone, J. (2022) *Winds of Change: Examining Attitude Shifts Regarding an Offshore Wind Project*, *Journal of Environmental Policy & Planning*, Vol. 25, 1, 55-73.
- deSain, M. 2023 forthcoming. *The relation between visual impact and acceptance of wind turbines – a literature review (English Translation)*.
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- Hoen, B., Darlow, R., Haac, R., Rand, J., & Kaliski, K. (2023). *Effects of land-based wind turbine upsizing on community sound levels and power and energy density*. *Applied Energy*, 338, 120856. <https://doi.org/10.1016/j.apenergy.2023.120856>
- Webinar on the above report: <https://emp.lbl.gov/webinar/effects-land-based-wind-turbine-upsizing>
- Elmallah, S., & Rand, J. (2022). "After the leases are signed, it's a done deal": Exploring procedural injustices for utility-scale wind energy planning in the United States. *Energy Research & Social Science*, 89, 102549. <https://doi.org/10.1016/j.erss.2022.102549>
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- Maruyama, Y and C Doedt. 2023. *The mega solar Twitter discourse in Japan: Engaged opponents and silent proponents*. *Energy Policy*, 2023, vol. 175, issue C.
- Gill, E. 2022. *The Human Dimensions of the Grand Challenges of Wind Energy Developments: A Socio-Technical Perspective*. Presentation at NAWEA/WindTech 2022.
- Wade, R and G Ellis. 2022. *Reclaiming the windy commons: landownership, wind rights, and the assetization of renewable resources*, *Energies* 15: 3744.



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In addition to publications on their own research, our participants work with graduate students (who are sorely needed in the future workforce of renewable energy deployment) to mentor them and co-publish peer reviewed reports in relevant journals such as *Energy Policy* and *Renewable and Sustainable Energy Reviews*. All university participants work with students, and

the biggest official international collaboration is called Multi-sectoral approaches to Innovative Skills Training for Renewable Energy and Social Acceptance, also known as MISTRAL. This innovative training network has mentors from Ireland, Switzerland, Denmark, the UK, Portugal, Germany, and others. Recent publications from MISTRAL about the social science of renewable energy deployment are below.

- Pons-Seres de Brauwer, C., & Cohen, J. J. (2022). Citizen preferences for co-investing in renewable energy: an empirical exploration of the “community-as-investor” acceptance of renewables’ innovation. In *Energy transition in the Baltic Sea region: understanding stakeholder engagement and community acceptance*/edited by Farid Karimi and Michael Rodi (pp. 61-89).. <https://doi.org/10.4324/9781032003092-7>
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Participation in the Task meetings

Task 28 holds two official meetings per year – one online and (since COVID) one in person. The in-person meeting in Year 3 was in Nagoya, Japan (8-9 May), hosted by task member Yasushi Maruyama. Because of increased travel costs and the distance to Japan, a portion of the meeting was offered online for those who could not attend in person.

At many international conferences and Technical Experts Meetings (listed previously), Task 28 features speakers and holds mini-convenings. This year these took place in the UK, Ireland,

Switzerland, Germany, and the U.S. These offer less formal information exchanges for social scientists from around the world.

Industry participation

Every member country and observer country work closely with the wind energy industry. Task 28 members attend global conference on wind energy, the energy transition, energy justice, sense of place, and related social science topics. At these meetings, participants typically make presentations and network with industry. Some examples are listed below.

Task 28 participants continue to disseminate findings and advise governments and industry on current and best practices for community engagement on wind energy projects and processes. For example, in the U.K, University of Exeter Professor Patrick Devine-Wright is consistently engaged with policymakers and provided written submissions for the UK Government about community engagement and consent for onshore wind projects. In Ireland, Dr. Devine-Wright served as a member of the Steering Group of the Sustainable Energy Authority of Ireland's Renewable Electricity Support Scheme Community Measures Evaluation as well as the Steering Committee of the SEAI funded research project.

Dr. Yasushi Maruyama from Nagoya University in Japan works with the wind industry to advise on establishing code of conduct of for the Japanese Wind Power Association and serves as an advisor on zoning to his local government.

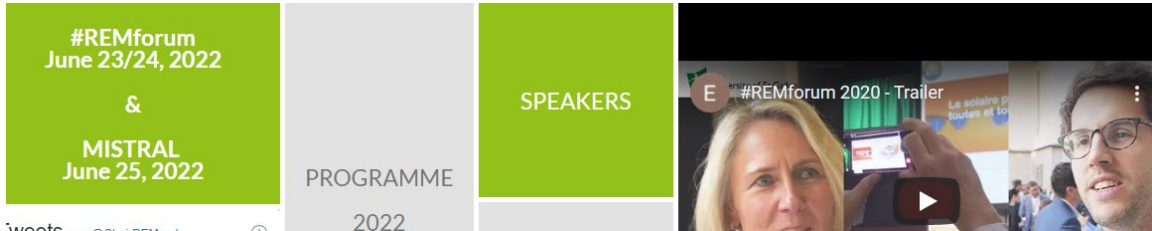
In Germany, Professor Gundula Huebner and her colleagues are working with the German wind industry to assess host community perceptions of annoyance from their nearby wind farm and to understand issues and ascertain mitigation methods such as slowing turbine speeds. Dr. Jan Hildebrand (also from Germany) is advising the Ministry of Energy from the Federal state of Saarland on the development of a new law on public participation about wind energy projects (including financial and planning). The goal of this is to create acceptance and to meet requirements from European law (RED II). He also works with municipalities and energy agencies on community benefits agreements including presenting to various stakeholders (developers, associations). Hildebrand presented this work to the French Ministry for Ecological Transition, and the work will be translated for German-French collaboration.

In the UK, participant Neil Farrington continues work with industry and government. Celtic Sea Power have been working closely with the Crown Estate, statutory nature conservation bodies and the Celtic Sea Floating wind developer community to help on the 4GW floating wind leasing round in the Celtic Sea. They have direct industry engagement through the now established Celtic Sea Cluster (<https://celticseacluster.com/>) and Celtic Sea developer's alliance.

A key focus of activity is the delivery of new environmental surveys in the Celtic Sea to target key areas of risk and delay in the EIA process and better understand potential areas of future interaction from a single sound evidence base. Alongside environmental surveys, they are developing data sharing agreements with all active floating wind developers to enable the sharing of data and evidence that will be built into regional characterization models.

Task 28 US members assisted in US DOE Offshore Wind Energy Strategy External Stakeholder Workshops, gaining feedback from wind energy developers during 2022. The findings from these meetings contributed to work published in US DOE webinars running in 2023.

June 2022. T28 meeting in St. Gallen, Switzerland in June 23rd to coincide with the Mistral meeting (25th) which itself is timed for then to coincide with REMforum (23rd-24th)



June 2022



June 2022

[Enterprise Ireland Offshore Wind Forum 8th & 9th June 2022 | Marine Ireland \(marine-ireland.ie\)](https://marine-ireland.ie)



Task 28 participants attended and gathered in Manchester at the Global Offshore Wind Conference, along with industry.