

May 2012

Final Report

# IEA Wind Task 28

Social Acceptance of Wind Energy Projects

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**iea wind**



# **Final Report**

## **IEA Wind Task 28**

### **Social Acceptance of Wind Energy Projects**

#### **“Winning hearts and minds”**

**Prepared for the  
International Energy Agency Wind Implementing Agreement**

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**May 2012**



## Preface

The International Energy Agency Implementing Agreement for Co-operation in the Research, Development and Deployment of Wind Energy Systems (IEA Wind) is a vehicle for member countries to exchange information on the planning and execution of national, large-scale wind system projects and to undertake co-operative research and development projects called Tasks or Annexes.

“IEA Wind Task 28” on Social Acceptance of Wind Energy Projects is a working group involving 10 countries, including the US and Canada, several European countries and Japan (Table 1). Task 28 works as an interdisciplinary and cross-cultural exchange platform with the goal to support the successful development of wind energy in the participating countries. The following report covers activities from 2008 to 2011.

**Table 1 IEA Wind Task 28 Participants during the period 2008-2011**

	<b>Country</b>	<b>Institution(s) – Contracting parties and active organizations</b>
1	Canada	Natural Resources Canada, CANMET Energy Technology Centre; University of Québec at Montréal
2	Denmark	Danish Energy Authority; Ministry of Climate and Energy
3	Finland	Finnish Funding Agency for Technology and Innovation, Energy and Environment Industries (TEKES); wpd Finland oy
4	Germany	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety; Martin Luther University; Otto von-Guericke University
5	Ireland	Sustainable Energy Ireland, Queen`s University Belfast
6	Japan	National Institute of Advanced Industrial Science and Technology; University of Tokyo
7	Norway	Norwegian Water Resources and Energy Directorate; Enova SF; Norwegian University of Science and Technology, Centre for Energy and Society
8	Switzerland	Federal Department of the Environment, Transport, Energy and Communications, Swiss Federal Office of Energy; ENCO Energie Consulting AG, Wind department
9	The Netherlands	Agentschap NL, NL Energy and Climate
10	United States	U.S. Department of Energy, National Renewable Energy Laboratory Wind Technology Center



## Thanks

As Operating Agent of IEA Wind Task 28, we would like to thank the following people who provided input in the form of participation in the working group, support with the publication of reports and dissemination activities or financial support:

- Maya Jegen, University of Québec at Montréal, Canada
- Lene K. Nielsen, Ministry of Climate and Energy, Denmark
- Anna Koskinen, wpd Finland Oy, Finland
- Olli Laitinen, Motiva Oy, Finland
- Andrea Meyer, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Germany
- Gundula Hübner, Martin-Luther-University Halle-Wittenberg, Germany
- Petra Schweizer-Ries, Jan Hildebrand, Otto-von-Guericke-University Magdeburg, Germany
- Martin McCarthy, formerly Sustainable Energy Authority of Ireland
- Geraint Ellis, Queen`s University Belfast, Ireland
- Yasushi Maruyama, Nagoya University and formerly University of Tokyo, Japan
- Albert Jansen and Michiel Dorresteyn, Agentschap NL, the Netherlands
- Jøran Solli, Centre for Energy and Society at NTNU, Norway
- Markus Geissmann and Katja Maus, Swiss Federal Office of Energy
- Eric Lantz and Larry Flowers, National Renewable Energy Laboratory, USA
- Patricia Weis-Taylor, IEA Wind secretary
- Hannele Holttinen, Technical Research Center of Finland VTT, Chair IEA Wind Executive Committee
- IEA Wind Executive Committee



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## Executive Summary

The International Energy Agency Implementing Agreement for Co-operation in the Research, Development and Deployment of Wind Energy Systems (IEA Wind) is a vehicle for member countries to exchange information on the planning and execution of national, large-scale wind system projects and to undertake co-operative research and development projects called Tasks or Annexes. “IEA Wind Task 28” on Social Acceptance of Wind Energy Projects is a working group involving 10 countries, including the US and Canada, several European countries and Japan.

Task 28 works as an interdisciplinary and cross-cultural exchange platform with the goal to support the successful development of wind energy in the participating countries. In the first three-year period from 2008-2011, the Task 28 working group has worked on the following Work packages:

- State-of-the Art: collection of information on research and implementation projects, creation of a website and an online database, publication of a State-of-the-Art Report.
- Good Practice Recommendation: Analysis of projects and case studies, formulation of Good Practices Recommendations
- Dissemination: Publication of the results, website, participation at and organization of expert meetings, reporting.

The working group met twice a year to exchange on policy evolution, current research on social acceptance of wind energy and ongoing implementation projects. Concepts for social acceptance of wind energy were discussed and successful strategies passed to each other and new contacts established. Since 2009, the working group meetings were regularly combined with meetings of national experts on social acceptance from administrations, research and practice. Task 28 also participated at EWEC 2010 in Warsaw and EWEA 2011. Regular input was also given from IEA Wind ExCo and national administrations.

Wind energy is supposed to deliver big parts of many energy policy goals. However, specific projects meet with partially fierce opposition which is also easily spread by media. While some regions and host communities still face wind power for the first time, other regions discuss issues such as repowering, “over-familiarity” or the necessity to extend the transmission lines which also often meet large resistance. To achieve the ambitious policy goals, social acceptance has to get into focus of not only policy makers and host communities, but also market actors and environmental organizations; otherwise, social acceptance can become a powerful barrier to wind power development. Thereby it has to be noted that there is no “recipe” – every project is unique. However, by taking the local concerns seriously, projects can be designed to the benefit of all.

International and interdisciplinary exchange in IEA Wind Task 28 and the discussions with national experts from research and practice has proven very valuable to all those involved – especially as in most countries, there has not been such a comprehensive view on the issue of social acceptance of wind energy projects before. The IEA Wind Task 28 therefore suggests to continue the Task for another three year period.



# 1. Objectives and work packages of IEA Wind Task 28

## 1.1 Objectives and work packages

Specific or partial objectives of this task are:

- Establishment of an international forum for exchange of knowledge and experiences related to social acceptance and other societal issues
- Produce a state-of-the-art report on the knowledge and results so far on social acceptance of wind power installations, including a list of studies and online library of reports/articles
- Establish "Good Practices" and tools for policy makers and planners to reduce project risks, accelerate time of realization of projects and accelerate the exploitation of the potential of wind energy in the concerned countries
- Establish strategies and communication activities to improve or to maintain the image of wind power.

The work to be done was divided in three work packages as formulated in the Task 28 proposal and developed during the three-year period. Indications indicate a detailed discussion of the work done. For an overview, see also Figure 1.

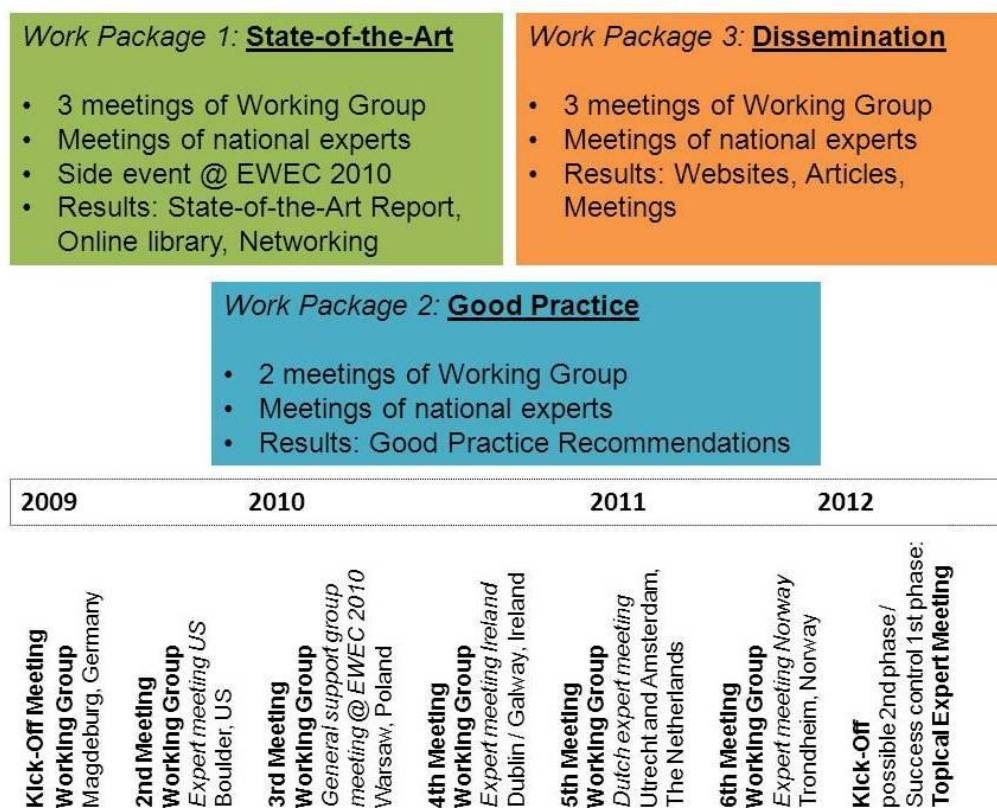


Figure 1 Overview on IEA Wind Task 28 activities





### *Work Package 1: State-of-the-Art*

- Produce a questionnaire for persons and projects on the internet (see 2.1 State-of-the-Art)
- Collect information on researchers and projects in different countries: Who is doing what (see 2.1 State-of-the-Art)
- Create a Website and an online library (see 3.4 Website and Appendix C: Website [www.socialacceptance.ch](http://www.socialacceptance.ch))
- Write State-of-the-Art Report based on the collection of information as mentioned above and discussions in the working group (see 2.1 State-of-the-Art)
- Arrange a 1st workshop with the Support Group: presentation of state-of-the-art, definition of open questions, possible new case studies and research content, evaluation of key factors for success and non-success in the siting and micro siting processes (see 3.2 Expert meetings and workshops)

### *Work Package 2: Recommendation*

- Analyze the various projects: case studies to determine which strategy leads to best results, comparison and evaluation of national and regional policy frameworks (see 2.2. Good Practice and Conclusions – findings and lessons learned)
- Evaluate strategies, successful projects and define best practice (see 2.2. Good Practice)
- Verify the underlying concept of social acceptance (triangle model, see Conclusions – findings and lessons learned)
- Compare and evaluate different participation models (“How to turn affected people into involved parties”) (see Conclusions – findings and lessons learned)
- Understand and describe the concept of “procedural fairness” (see Conclusions – findings and lessons learned)
- Describe proposed processes and strategies in the field of stakeholder analysis, participation processes, planning procedures, communication strategies and activities (see 2.2. Good Practice and Conclusions – findings and lessons learned)
- Write lessons learned, Recommendations, Best-Practice Report (see 2.2. Good Practice)
- Arrange a 2<sup>nd</sup> workshop with the Support Group: Presentation of Best-Practice Report, consensus on procedures and strategies on international, national and local levels (see 3.2 Expert meetings and workshops)

### *Work Package 3: Dissemination*

- Collect existing material on courses etc., elaborate curriculums for seminars (see 3.3 Diverse contacts and activities)
- Produce manual, instructions for planners (see Reference reports and List of publications)
- Website (internal and external) (see 3.4 Website and project database and Appendix C: Website [www.socialacceptance.ch](http://www.socialacceptance.ch))
- International and national meeting of planners and developers / international seminar or workshop, in conjunction with 3<sup>rd</sup> workshop of Support Group (see 3.2 Expert meetings and workshops)



- Write publications, prepare templates and presentations for working group members, participate at expert gatherings (developed during task period, see dissemination)
- Exchange with other social acceptance experts, groups and task (developed during task period (see 3.3 Diverse contacts and activities)
- Regular reporting to IEA ExCo and annual report for IEA Wind (see 3.5 Task 28 reports).

### 1.3 Meetings

- In May 2007, the 54th Topical Expert Meeting (TEM) of IEA Wind was organized by Task 28 under the heading of “Social Acceptance of Wind Energy Projects”. It took place in Lucerne, Switzerland and united 15 participants from Germany, Sweden, the Netherlands and Switzerland mainly from National Research Organizations.
- After preparatory work and preliminary discussions at IEA Wind ExCo meetings, the Task 28 was officially approved at the ExCo meeting in April 2008.
- Possible participants of IEA Wind Task 28 working group met for a pre-kick-off meeting in August 2008, in Bubendorf, Switzerland (18 participants from the 10 participating countries).
- The regular working group meetings took place twice a year, from autumn 2009 to autumn 2011:
  - Kick-Off / first meeting, March 2009 in Magdeburg, Germany (13 participants from 6 countries).
  - Second meeting, October 2009 in Boulder, US (12 participants from 9 countries)
  - Third meeting, March 2010 in Warsaw, Poland in connection with EWEC 2010 (7 participants from 5 countries, 9 participants were not able to make it due to flight cancellations)
  - Forth meeting, September 2010 in Dublin, Ireland (12 participants from 8 countries)
  - Fifth meeting, March 2011 in Utrecht, the Netherlands (13 participants from 8 countries)
  - Sixth meeting, October 2011 in Trondheim Norway (12 participants from 9 countries)
- Further meetings were held online to inform working group members about activities between meetings and to prepare further activities:
  - September 2009 (8 participants)
  - February 2010 (13 participants)
  - June 2010 (6 participants)
  - September 2010 (7 participants)
  - September 2011 (8 participants).
- In June 2012, a second TEM will take place in Biel, Switzerland. It will serve as “success control” of IEA Wind Task 28’s first three-year period. A kick-off meeting for a second three-year period might be attached. This final report should be presented and accepted at the IEA Wind ExCo in spring 2012.



## 1.4 Finances

The budget includes the coordination and management activities and the Operating Agent's expenses over the period of performance, timing of funds and staff, skills and qualifications of the staff.

The total costs of the Operating Agent for coordination, management, reporting, data base maintenance and operation, expenses at meetings etc. was ~45 kEuro/yr during the projected three year period as agreed upon by IEA Wind Task 28 participating countries.

The following table (Table 2) shows the accounts per end 2011, the official termination of IEA Wind Task 28.

By additional financial support especially from the Swiss Federal Office of Energy for the technical reports as well as support from several working group members for the publication of dissemination articles, the project was finalized without debts or surplus. We would like to thank all the working group members for the work and effort dedicated to IEA Wind Task 28 which brought a great value to all those involved. We would also like to stress our gratitude towards the Swiss Federal Office of Energy and Katja Maus for their moral as well as financial support in this Task.

**Table 2 Overview Finances IEA Wind Task 28 2009 - 2011**

**Financial Accounts IEA Wind Task 28 "Social Acceptance"**

**per end of 2011**

*all costs in €*

Costs	Text	Budget		Actual			Balance end of project versus budget
		Labor month 2009 - 2011	Euro 2009-2011	2009	2010	2011	
	Meetings, Administration, Finances, incl. Workshops*	3.50	42'000.-	20'253.-	21'692.-	28'858.-	-28'803.-
	Website	1.25	15'000.-	7'123.-	5'098.-	1'238.-	1'542.-
	Reports (State of the art, Good Practices)**	2.50	30'000.-	4'936.-	8'620.-	1'029.-	15'415.-
	Reporting***	2.00	24'000.-	1'586.-	6'786.-	11'046.-	4'582.-
	Travel Costs		12'000.-	6'565.-	4'977.-	3'647.-	-3'188.-
	Other expences (charges, fees, etc.)****		12'000.-	131.-	2'732.-	123.-	9'014.-
	<b>TOTAL</b>	<b>9.25</b>	<b>135'000.-</b>	<b>40'593.-</b>	<b>49'904.-</b>	<b>45'941.-</b>	<b>-1'439.-</b>
	Cost 1 Labor month	12'000.-					

Income		10 Countries 3 years	Euro 2009-2011	Fee from Netherlands for both years in 2010			
	Bank balance (Result)				169.-	304.-	
	Yearly (netto) fee + Result	30	135'000.-	40'711.-	50'072.-	45'646.-	<b>136'430.-</b>

Yearly fee / country: 4'500.-

**Balance**

<b>Balance of project end of 2011</b>	<b>9.-</b>
---------------------------------------	------------

\* Including preparation side event EWEC

\*\* Most of the State-of-the-Art Report was financed by the Swiss Federal Office of Energy, English corrections by Pat Weis-Taylor and NREL  
Good Practice recommendations were written in collaboration of working group members

\*\*\* The Swiss Federal Office supported the Final Report financially.

\*\*\*\* Including material / catering for meetings and side event



## 2. Review of the cooperative activities IEA Wind Task 28

### 2.0 The issue of Social Acceptance of Wind Energy Projects

Ambitious energy policy often includes targets for slowing climate change, improving air quality, or increasing energy security. Each of these goals may benefit from rapid deployment of renewable energies. Many governments have developed incentive programs to encourage a rapid increase in renewable energy production, but the growth of wind energy varies among countries and regions.

Reports on heated debates and strong opposition to wind energy projects have drawn attention to social barriers to renewable energy production. While public opinion polls usually show that large majorities support renewable energies – including wind energy – and environmental organizations frequently support them as well, many projects meet with resistance from local communities or from environmental organizations.

While there are many research projects ongoing and more experience is gained with each wind power project implemented, there still is a need for exchange of successful approaches and of how to deal with the various issues connected to wind power and its acceptance in society and host communities. And while there is much know-how also from acceptance of other renewable energy technologies or infrastructure projects, wind power has some unique characteristics that make specific approaches necessary (strong visual impact, ecosystem impacts, transmission to load centers, benefits on a national or international scale versus local disadvantages etc.) (text partially from Huber and Horbaty (ed.) 2010).

Wüstenhagen et al. published an article on “Social acceptance of renewable energy innovation: An introduction to the concept” in 2007. Today, this article is second in the list of “most downloaded articles” at the Elsevier “Energy Policy Journal” which illustrates very well the importance of the issue (Elsevier 2012).

IEA Wind Task 28 focused on the following issues:

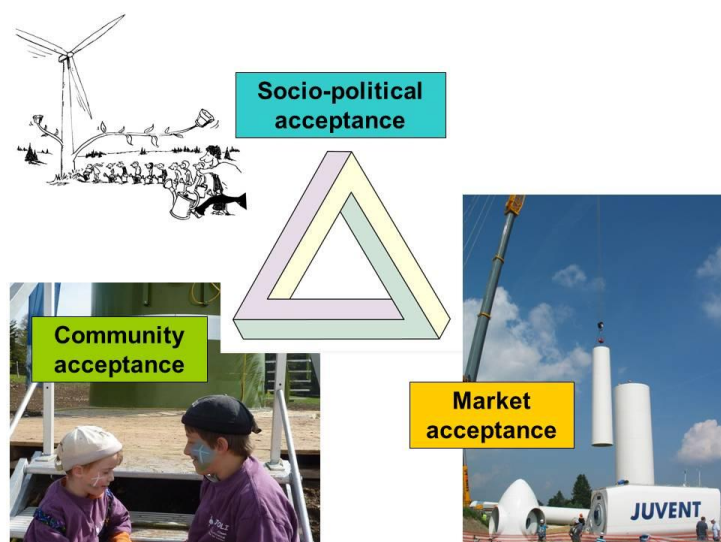
- *Policy and spatial planning*: the influence on social acceptance of renewable energy targets, energy concepts, siting criteria, financial support, and other elements of energy policy and spatial planning
- *Quality of life/well-being*: concerns over health, annoyance, and stress related to noise, low-frequency sound, shadow flicker, or obstruction markings
- *Standard of living and property values*: “myths” about rising electricity prices and concerns over negative impacts on real estate values resulting from wind energy projects
- *Landscape*: the issue of landscape as part of the identity of the people whose families have been living in the specific area for centuries, or landscape with their quietness and natural beauty as the reason why people moved out from the cities to the rural areas
- *Ecosystems*: fear of potential negative impacts of wind projects or the accompanying infrastructure on the local ecosystem (forests, birds, and bats)



- *Transmission lines*: objections to transmission lines and other infrastructure often needed for wind power deployment
- *Distribution of costs and benefits and procedural questions*: How can the people who bear the disadvantages of wind energy projects benefit from the advantages? How can they be integrated in the planning and decision processes?

The conception of social acceptance (see Figure 2) used by IEA Wind Task 28 to structure the projects was deducted from Wüstenhagen et. al. (2007). Wüstenhagen et al. described three dimensions of social acceptance of renewable energies: Socio-political acceptance is the most general dimension of acceptance and refers to the attitude of the public, key stakeholders, and policy-makers. Community acceptance relates to acceptance by local stakeholders – local authorities and residents – of particular siting decisions and renewable energy projects. Market acceptance involves both consumers and investors and refers to the process of how the market adopts and deals with innovations. While socio-political and market usually are discussed on a societal and often general level, community acceptance usually is an issue connected to specific projects.

G.H. Hansen proposed the integration of the endless triangle as a symbol of the interactions and interdependencies between the actors in the field of wind power (from the Norwegian expert day).



**Figure 2 Conception of Social Acceptance of Wind Energy by IEA Wind Task 28 (pictures by friendly allowance of Adequa Communication, M. Geissmann and R. Horbaty, with contribution of G.H. Hansen)**

## 2.1 State-of-the-Art

The exchange of ongoing developments in the participating countries, of current research projects and successful implementation projects proved very valuable to those involved in IEA Wind Task 28. The exchange was distilled in the “State-of-the-Art Report” as published in 2010 (Huber and Horbaty (ed.) 2010): It was finished in August 2010 and accepted by IEA Wind ExCo in autumn 2010 (see Figure 3).

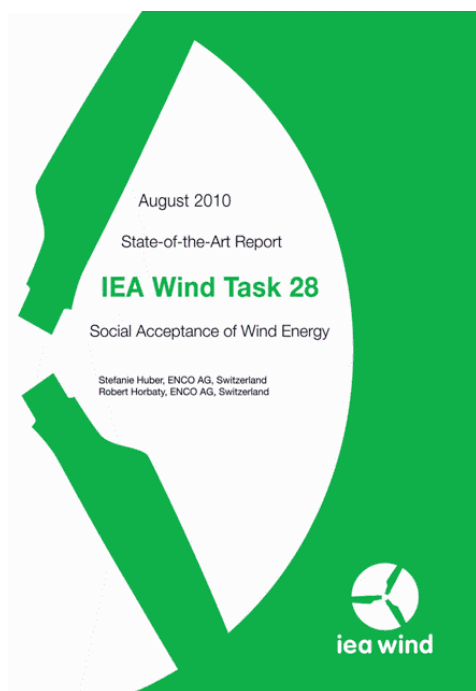


Figure 3 Title page of the State-of-the-Art Report

The State-of-the-Art Report was informed by nine national State-of-the-Art Reports with the same structure. It became quickly obvious that the analysis of the social acceptance situation on wind energy projects in the respective countries from an interdisciplinary point of view, but also on an international context very helpful to understand current developments. Experience from working group members and participating countries was enriched by literature research and discussions with further experts in the field.

It is the first comprehensive State-of-the-Art Report collecting know-how on social acceptance of wind energy from various countries and disciplines, including research, policy developments as well as implementation projects and practice. The language

was intended to be as readable for many target audiences, including policy and decision makers, project developers, host communities and interest groups such as environmental organizations.

The structure of the report resulted from discussions in the working group based on the model of Wüstenhagen et al. (2007) (Figure 4). The introduction of the issue and the characteristics of wind energy and the definition and containment of the report frame the discussion of the issues policy and spatial planning, stakeholders and the variables. Amongst the variables there are many issues that concern the implementation of wind energy and host communities, e.g. quality of life, well-being and health issues, balance of benefits and disadvantages, processes and communication.

The State-of-the-Art Report has been made available on the homepages of IEA Wind ([www.ieawind.org](http://www.ieawind.org)) and IEA Wind Task 28 ([www.socialacceptance.ch](http://www.socialacceptance.ch)). Many of the projects and reports mentioned in the report are also part of the online database on the website of the Task (see web database).



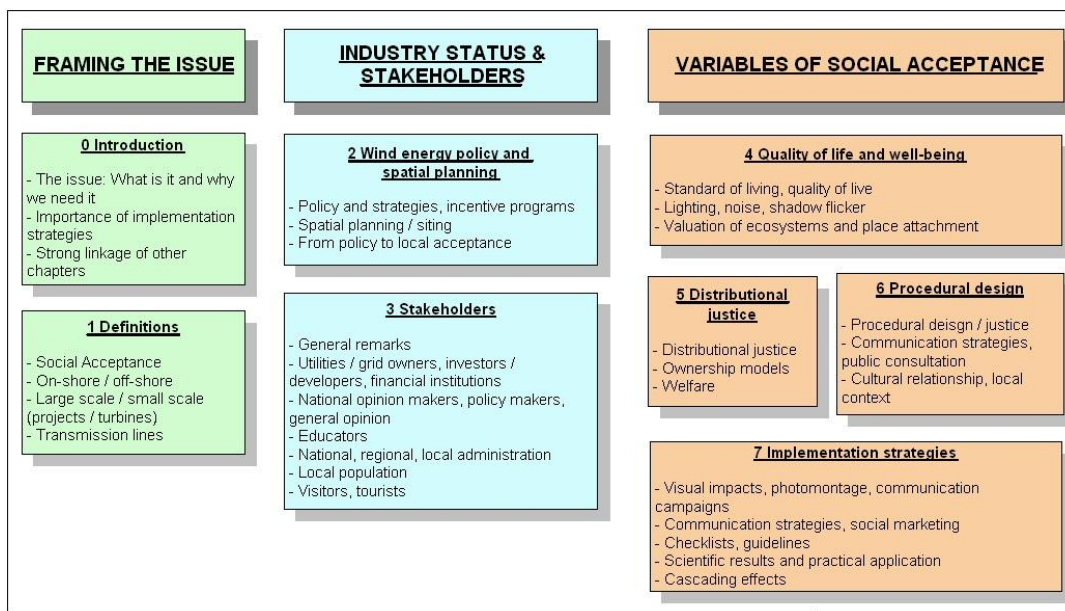


Figure 4 Structure of the State-of-the-Art of IEA Wind Task 28

## 2.2. Good Practice

The State-of-the-Art Report is a rather detailed study. To make the knowledge of IEA Wind Task 28 available to a broader public and more easily accessible, the “Good Practice Recommendations” (Huber and Horbaty (ed.) 2012) are intended to highlight valuable examples and approaches in a general manner with reference to exemplary projects in participating countries. People actually involved in wind farm projects should get hints for their work and ideas how to deal with proponents and opponents of the project. This document will also contain more recent projects and publications that were not available for the State-of-the-Art Report yet.

The Good Practice recommendations should be accepted by IEA Wind ExCo at its spring meeting 2012 in connection with this final report and then made available at [www.socialacceptance.ch](http://www.socialacceptance.ch).

## 2.3. Dissemination

A goal set at the beginning of the Task was to make the knowledge gained in the project available to people working in the implementation of wind power in the participating countries and even further. The activities developed during the project, e.g. by scientific publications, and still continue after the official termination of the first three-year period.

The activities can be grouped as follows:

- Publications and Presentations
- National expert meetings
- Participation at EWEA 2010 and 2011
- Diverse contacts and activities.



### 3. Dissemination activities

#### 3.1 Publications, Presentations and Interviews

The following lists give an overview on public dissemination activities.

##### *Publications*

- In March 2011, Markus Geissmann and Stefanie Huber published an article in the Swiss electricity branch magazine based on the insights of IEA Wind Task 28 that might prove valuable for Swiss wind power implementation (Geissmann and Huber 2011)
- In collaboration with Geraint Ellis, the Operating Agent could write a book chapter on “Social Acceptance of Wind Power Projects: Learning from Trans-National Experience” in "Learning from Wind Power: Governance, Societal and Policy Perspectives on Sustainable Energy" edited by Geraint Ellis, Joe Szarka, Richard Cowell, Peter Strachan and Charles Warren (in press).
- The results of IEA Wind Task 28 are also available as an article for the Wiley Interdisciplinary Reviews: Energy and Environment and its issue on wind energy where an article on “Large-scale wind deployment, social acceptance” was submitted (in press).
- Task 28 results were directly included publications by Gundula Hübner (Hübner 2011, Hübner 2012).

##### *Presentations*

- Robert Horbaty presented Task 28 at the Irish Wind Industry Encounter in October 2011 (Horbaty 2011).
- Jan Hildebrand participated at the 10th wind energy symposium 2011 in St. Pölten, Austria, organized by the Austrian Wind Energy Association IG Windkraft Österreich.
- Gundula Hübner represented Task 28 at the South Africa bilateral training event in July 2011, Johannesburg, South Africa.
- Stefanie Huber exchanged Task 28 experience with an experts` group on R&D priority-setting and evaluation (The transition to a low-carbon society, socio-economic considerations) of IEA in May 2011 in Vienna, Austria.
- Eric Lantz represented IEA Wind Task 28 at a side event of IEA Wind At EWEA 2011 in Brussels, Belgium (Lantz 2011)
- Input of IEA Wind Task 28 was sought at the Irish renewable energy summit 2010 in Dundalk, January 2010. A further chance to discuss social acceptance issues in Ireland was offered at the Irish Wind Industry Encounter connected to the IEA Wind ExCo Meeting in Dublin, October 2011
- The Operating Agent prepared a presentation for the IEA Wind secretary on the occasion of a communication workshop in Paris, September 2010.
- Robert Horbaty is a regular speaker or workshop moderator at the annual Forum for the management of renewable energies at the University of Sankt Gallen, Switzerland.





### *Interviews*

- The September issue 2011 of EWEA's magazine "Wind Directions", dedicated to "Living with a wind farm - the public acceptance issue", featuring an interview with Stefanie Huber, co-worker of the Operating Agent of IEA Wind Task 28 (WD 2011).
- Maya Jegen spoke with "les affaires.com" about issues of social acceptance in February 2011 (Jegen 2011).
- Robert Horbaty explained in the Swiss communal magazine the importance of taking acceptance issues seriously.

## **3.2 Expert meetings and workshops**

### *National expert meetings*

In connection with working group meetings in one of the participating countries, experts from the respective country were invited to exchange on the issue of social acceptance of wind energy together with the IEA Wind Task 28 working group members. The meeting consisted of presentations from researchers and practitioners from the wind energy sector as well as transmission projects or the administrations. IEA Wind Task 28 gave their input from their disciplinary or national background and participated in the discussions. The informal exchange during breaks or an excursion enabled further discussion between the participants.

Such meetings took place in

- Boulder, US (autumn 2009)
- Galway, Ireland (autumn 2010)
- Amsterdam, the Netherlands (spring 2011)
- Trondheim, Norway (autumn 2011).

A further national expert meeting with participation of international participants is planned for the Topical Expert Meeting in June 2012, in Biel, Switzerland.

Additionally, yearly national expert meetings were organized in Germany by the working group members involved from the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the research institutes involved in IEA Wind Task 28.

In many of the countries mentioned, such national expert meetings took place for the first time in the way of gathering all relevant people involved in research of wind power acceptance and practitioners from wind power implementation. Therefore, the meetings enabled new insights and new contacts for all participants. The presentations were made available on the homepage of IEA Wind Task 28 or on the intranet for IEA Wind Task 28 participants. See Appendix B: List of expert meetings for more details on the meetings and the participants respectively their talks.

### *Participation at EWEA 2010 and 2011*

IEA Wind Task 28 organized a specific side event on social acceptance of wind energy at EWEC 2010 in Warsaw (Task 28 2010). Additionally, Robert Horbaty gave a presentation in the official EWEC session on social acceptance and delivered a paper for the documentation of EWEC 2010 (Horbaty 2010).



At EWEA 2011, an abstract was handed in on the work of IEA Wind Task 28 and also accepted, but due to resource restrictions, it wasn't possible to participate at the poster presentation at EWEA 2011. Eric Lantz, working group member from the US, however, gave a presentation for IEA Wind Task 28 at the side event organized by IEA Wind (Lantz 2011).

### **3.3 Diverse contacts and activities**

Working group members and the Operating Agent, being active in their respective fields of research or work, had contacts with various experts in the field of social acceptance also in non-participating countries and other international projects on similar issues.

Among the contacts the Operating Agent had specifically on the issue of social acceptance of wind energy and collaboration with IEA Wind Task 28 were:

- Richard Finlay-Jones, Ecoenviro, Australia
- Rachel Solomon Williams and Allan Taylor, Office for Renewable Energy Deployment, UK
- Claire Haggett, University of Edinburgh, UK
- Patrick Devine-Wright, University of Exeter, UK
- Timo Laakso, Poyry, Finland
- Tomas Söderlund, Power Quest, Sweden
- Antonio Nicola Negri and Cristina Cavicchioli, RSE, Italy

Several other international projects on social acceptance of renewable energy technologies took place around the same time as the IEA Wind Task 28. With some of them, exchange was sought directly, from others, results were incorporated in for example the State-of-the-Art Report:

- International Energy Agency Implementing Agreement for Renewable Energy Technology Deployment („RENBAR“) (Renbar 2012)
- IEA Bioenergy Task 29: Socio-economic drivers in implementing bioenergy projects (IEA Bioenergy Task 29)
- GP Wind (GP Wind 2012)
- TP Wind.
- Create Acceptance. Cultural influences on Renewable Energy Acceptance and Tools for the development of communication strategies to promote ACCEPTANCE among key actor groups (Create Acceptance 2008)
- PROGRESS. PROMotion and Growth of Renewable Energy Sources and Systems (Progress 2008)

Many of the working group members are involved in lectures at their home universities or as guest lecturers where contents of IEA Wind Task 28 work are brought in as well in the context of renewable energy technologies or acceptance issues.



### 3.4 Website and project database

#### Website



**Figure 5 Starting page of [www.socialacceptance.ch](http://www.socialacceptance.ch)**

The website [www.socialacceptance.ch](http://www.socialacceptance.ch) (Error! Reference source not found.) served as an external and internal communication tool and archive for the publications. The following table gives an overview on the content of the website (Table 3). For

the use of the website, see Appendix C: Website [www.socialacceptance.ch](http://www.socialacceptance.ch)

**Table 3: Content of the website [www.socialacceptance.ch](http://www.socialacceptance.ch)**

	Site description	Content
<b>External / public</b>	Home	Introduction and News
	Definition	Reference to the three dimensions by Wüstenhagen
	Objectives and Strategy	Objectives, work packages and time frame
	Results	Detailed work packages with some of the respective results
	Activities	Summary of activities and results for each year, including outlook for 2012 onward
	Dissemination	Summary and links for publications, presentations and national meetings of IEA Wind Task 28
	List of projects	Introduction of web database, link to web database
	Agenda	Links to public wind energy conferences etc.
	Contact	Name of the participating institutions and people in the respective countries, with possibility of taking contact with each country
	Links	Links from each country, for official sites, organizations and research institutions

<b>Internal</b>	Agenda	Dates to remember, next meetings, wind day`s etc.
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	Administration	Budget, Finances, Official documents
	Task 28 meetings	Information on the forthcoming meeting, presentation and documents from last meetings
	News	Inputs from working group members and the Operating Agent
	IEA Wind ExCo	Reports to IEA Wind ExCo, annual reports
	Produced documents	Collection of documents and publications by IEA Wind Task 28
	Full description of Project objectives	Basis of IEA Wind Task 28
	Projects / Publications	Internal link to the full database, including the possibility to upload projects

### Project database

The idea of collecting relevant research and implementation projects on social acceptance of wind energy and transmission projects from countries all over the world led to the idea of a web database where interested people could find helpful ideas and already existing knowledge on the issues around social acceptance of wind energy (Figure 6). The database assembles research articles, project descriptions and reports, interesting websites and implementation strategies.

**Task 28, Social Acceptance of Wind Energy Projects**

**Search**

Project/Publication:

Institution:

Author:

Abstract:

☐ 1 Definition of Social Acceptance ☐ 3 Stakeholders / target group ☐ 5 Procedural Design ☐ 7 Implementation strategies

☐ 2 National Wind Energy Concepts ☐ 4 Distributional Justice ☐ 6 Well-being

**Find** **Reset**

**List of projects/publications**

Project/Publication	1	2	3	4	5	6	7	Institution	Author(s)	Year	Country	Language	Last Edit	Att.
Studi sull'accettabilità sociale dell'eolico ed elementi di supporto alla pianificazione	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ricerca Sistema Energetico	Cristina Cavicchioli / Gianmario Folini / Alessandro Scassellati Sforzolini	2011	Italy	Italian	23.04.2012	0
THE DEVELOPMENT OF THE CODE OF CONDUCT FOR THE WIND POWER INDUSTRY IN SWEDEN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PowerQuest	Tomas Soderlund	2010	Sweden	English	23.04.2012	
Exploring community acceptance of rural wind farms in Australia: a snapshot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CSIRO Science into Society	Nina Hall / Peta Ashworth / Hylton Shaw	2012	Australia	English	03.04.2012	0
Wind Turbine Health Impact Study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Massachusetts Department of Environmental Protection	Jeffrey M. Ellenbogen / Sheryl Grace / Wendy J. Heiger-Bernays	2012	USA	English	03.04.2012	0
Good Practice Wind Website Project	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good Practice Wind Website Project	Scottish Government	2009	Europe	English	03.04.2012	
Concerted Action - Renewable Energy Sources Directive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Intelligent Energy Europe	European Energy Agencies	2009	Europe	English	03.04.2012	

**Figure 6:**  
Screenshot  
from the  
project  
database

All documents are presented with a classification following the structure of IEA Wind Task 28 activities and an abstract highlighting the value of the content for social acceptance of wind energy projects (Figure 7). Additionally, documents from the project can be uploaded



for the reader to get the content without further research. While non-public documents are only available for Task 28 members, most database entries are accessible to the public.

**Good Practice Wind Website Project**

<input type="checkbox"/> 1 Definition of Social Acceptance	<input type="checkbox"/> 5 Procedural Design
<input checked="" type="checkbox"/> 2 National Wind Energy Concepts	<input type="checkbox"/> 6 Well-being
<input type="checkbox"/> 3 Stakeholders / target group	<input type="checkbox"/> 7 Implementation strategies
<input type="checkbox"/> 4 Distributional Justice	

**Institution:** Good Practice Wind Website Project

**Author(s):** Scottish Government

**Year:** 2009

**Country:** Europe

**Language:** English

**Additional Info:**

**Uploaded by:** Stefanie Huber

**Project is public:** ☒

**Abstract:**

WELCOME TO THE GP WIND WEBSITE PROJECT

The GP WIND project will address barriers to the deployment of onshore and offshore wind generation, specifically by recording and sharing good practice in reconciling objectives on renewable energy with wider environmental objectives and actively involving communities in planning and implementation. By bringing together developers, regional and local government, environmental agencies and NGOs from differing countries to share experiences, it will be possible to develop a guide to good practice and a 'how to' toolkit, which will be used to facilitate deployment of renewable energy in support of the 2020 targets.

**GP WIND OBJECTIVES**

- Increase the consenting rate for on and offshore wind projects, and reduce the processing period for applications.
- Increase the efficiency of processing applications, thereby reducing process costs.
- Build evidence based support for the design, planning and implementation of projects which are sensitive to environmental and community concerns.
- Assist quicker, more transparent and less costly deployment of wind energy across Europe, contributing to the achievement of 2020 targets for renewable energy generation.
- Secure endorsement of project outputs by participating partner administrations and commitment to adopt relevant good practice.
- Secure endorsement of project outputs by other Member States and commitment to adopt relevant good practice.

**Figure 7: Detail description of a project entry**

Resources come from more than twenty countries and are inserted in the respective language; the abstract usually summarizes the importance of the document in English, web links lead to further information. By 2012, the database includes documents in English, German, French, Japanese, Dutch, Danish, Finnish and Italian.

### *A note on Social media*

The web plays an important role in the discussions of renewable energy technologies and enables broad networks as well as fast opinion exchange. IEA Wind Task 28 discussed stronger involvement in social media as a way of disseminating the experience from IEA Wind Task 28, but decided on concentration on activities that were on one hand well-proven, such as national expert meetings and presentations, and on the other hand manageable, such as web site and publications. Manageable refers on one hand to resources necessary to establish a more or less timely actualization, and on the other hand to the content – messages on social media are easily distributed and used by various people. Being an official Task of IEA Wind and closely working with national administrations, the involvement in too controversial discussion could disbenefit the intention of IEA Wind Task 28.





### 3.5 Task 28 reports

IEA Wind Task 28 had the chance to regularly exchange with IEA Wind ExCo members and the whole committee on the issue of social acceptance of wind energy. The presence at the IEA Wind ExCo from 2008 on into 2011 has brought valuable comments back to the working group and enabled the Operating Agent to disseminate the knowledge of the Task to further IEA Wind countries.

The working group and the Operating Agent also have made use of the Annual Reports in the frame of the IEA Wind Annual Report to summarize activities and current developments in the area of social acceptance and to present last year's progress to a broad public by publishing the Annual Report (Figure 8). In 2007 described in the “new tasks” section, Task 28 delivered an own chapter from 2008 to 2011.

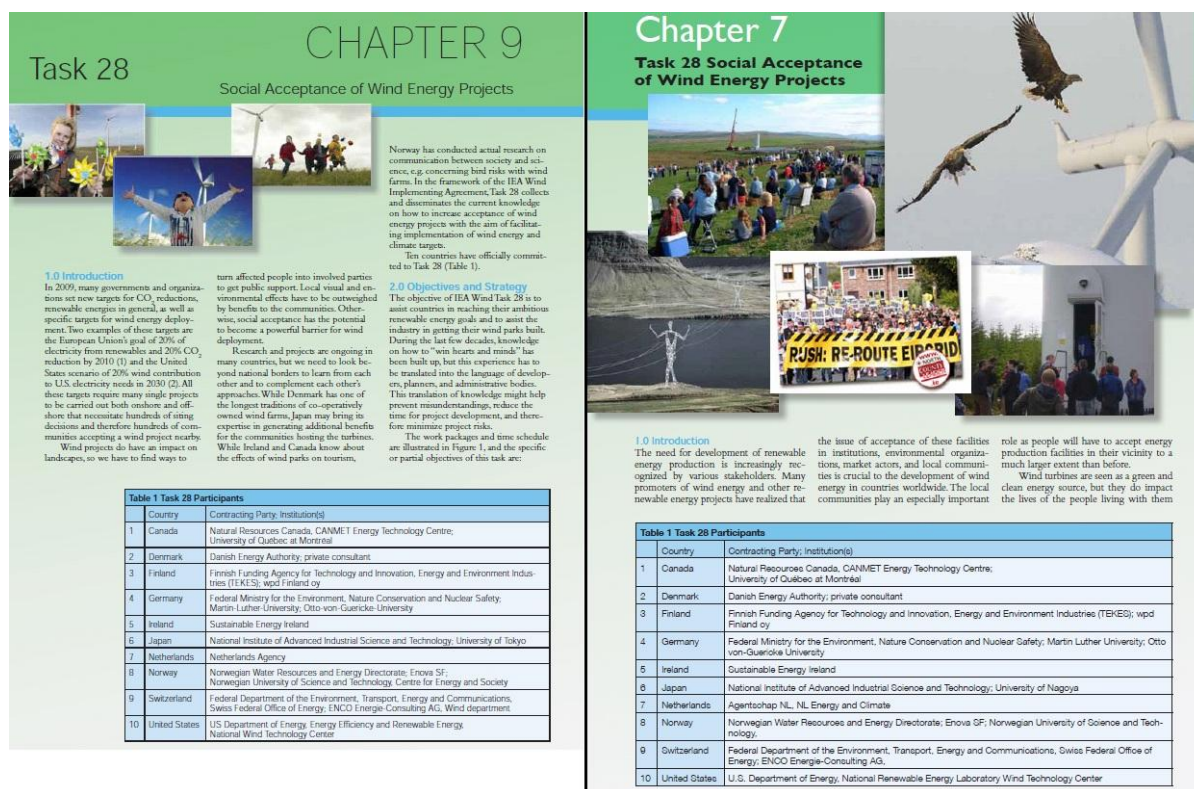


Figure 8 First page of annual reports IEA Wind Task 28 from 2009 (left) and 2010 (right)



## 4. Conclusions – findings and lessons learned

### 4.1 Work of IEA Wind Task 28

Three years of experience within the working group and supporting institutions of IEA Wind Task 28 on social acceptance of wind energy have shown international exchange on social acceptance issues to be exceptionally valuable for those engaged in the work of the task. The working group meetings enabled in-depth discussion of ongoing development and policy evolution, exchange on current research and implementation and tracking of new issues arising in the participating countries. The discussions profited from the diverse backgrounds of the working group members: from European, North American and Asian countries, including government administrators, researchers, planners and practitioners. One of the goals of the task - to write down current research knowledge, especially from social sciences, in a language that practitioners can understand – first had to be accomplished within IEA Wind Task 28 as the vocabulary and the understanding of terms and concepts varies between the various disciplines involved. However, with each meeting and especially discussions in subgroups on specific issues such as the Good Practice Recommendations, understanding between countries and disciplines was developed and cast into the IEA Wind Task 28 reports.

The national expert meetings on the other hand proved a very valuable tool to connect research, administrators and practitioners in the respective country and to make the various institutions into contact with each other and to disseminate knowledge of IEA Wind Task 28, but also experts from the participating countries. One of the other goals of Task 28 – to disseminate knowledge on “winning hearts and minds” – certainly was best achieved in these meetings.

With the presentation of the results at IEA Wind ExCo meetings together with the reports and dissemination activities proposed by IEA Wind Task 28, the working group would conclude its impact as follows:

- Providing up to date information on social acceptance of wind energy in each of the participating countries including the reporting of social acceptance trends in individual countries
- Sharing of practical information, learning from each other, complementing each other's approaches, exchange of successful strategies and thereby identifying and documenting successful policy strategies anticipated to be applicable across contexts
- Discussion of the complex issues around social acceptance and gaining additional insights from the broad trans-national and interdisciplinary experience of Task 28 thereby identifying open issues and research gaps
- Enlarging the network and knowledge on good practice of institutions, organizations, experts and practitioners in the participating countries
- Providing reports, publications and presentations in the language of planners, developers, authorities and other stakeholders outside the research community



## **4.2. Accomplishment of the work packages**

The work packages as proposed at the beginning of IEA Wind Task 28 were accomplished in the majority. However, certain aspects proved to be difficult in implementation or evolved in a slightly different direction than intended in the beginning. The following overview shall give an idea on the different work packages (for the detailed work package description, see 1.1 Objectives and work packages).

### *Work Package 1: State-of-the-Art*

A questionnaire was sent out to experts in the field to get an idea of ongoing projects and possible contacts in the participating countries. The answers were taken into account for the work of Task 28 and the project database on the internet. From these answers, the network of Task 28 working group members and supporting institutions as well as literature research, the project web database was created and the State-of-the-Art Report written down. The State-of-the-Art Report was published in 2011 and made available on the homepage of Task 28 and IEA Wind (Huber and Horbaty (ed.) 2010). The side event at EWEC 2010 was intended as a first “Supporting Group” meeting to get input on the work of IEA Wind Task 28 (Task 28 2010). However, compared to the value of national expert meetings, it was decided to continue this kind of “Supporting Group” rather than international meetings.

### *Work Package 2: Recommendation*

Based on the State-of-the-Art Report, successful strategies and innovative approaches could be evaluated and “Good Practice Recommendations” formulated. These include policy and planning aspects, participation models and procedural questions, lessons learned on well-being and quality of life or landscape and impacts on ecosystems.

The concept of social acceptance for renewable energy technologies such as proposed by Wüstenhagen et al. (2007) was confirmed, however, the addition of institutions and regional / national administrations was added. Good examples and feedback from researchers and practitioners were gained from several national expert meetings.

### *Work Package 3: Dissemination*

See Dissemination activities

## **4.3. Development of Social Acceptance of Wind Energy**

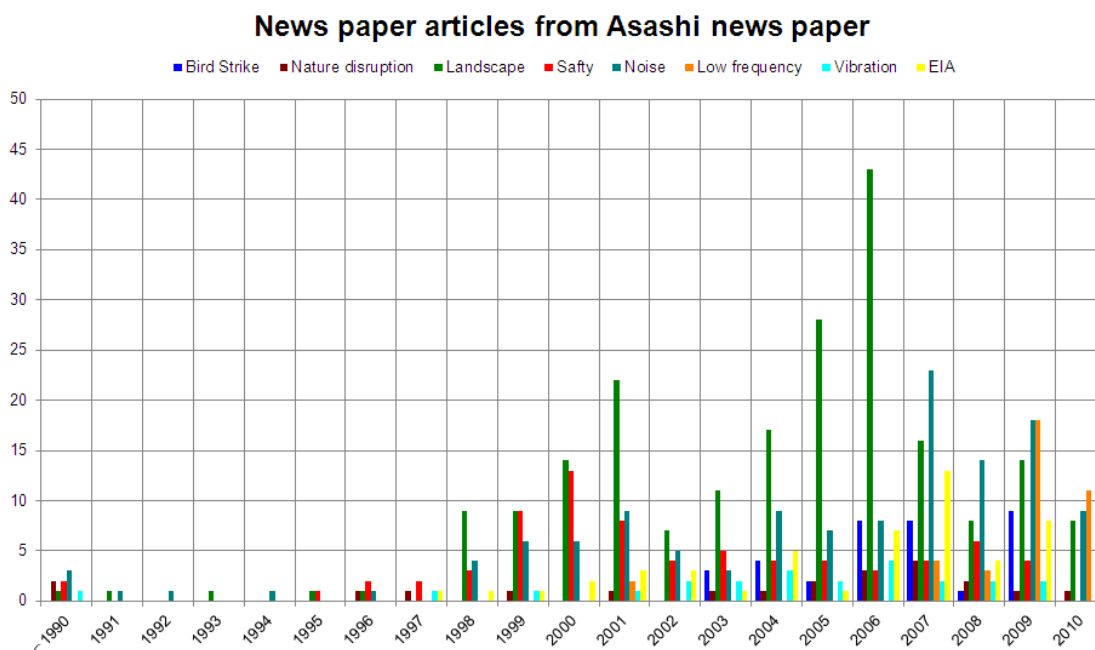
When IEA Wind Task 28 was launched around 2008, wind power development in many countries had come to a halt or was slowed down drastically. Vivid debates and dramatic reports in the media on the opposition towards wind energy projects started to impact wind power's image even if opinion polls still suggested high support for wind power.

The energy policy targets continue to rely heavily on wind power in many countries around the globe while the installed capacity has reached high densities in certain regions of IEA Wind countries. Therefore, social acceptance requires further attention and examination for individual projects to be realized.





Topics of the debates have varied over time - Figure 9 shows the example of Japan (contribution of Yasushi Maruyama), illustrated by newspaper articles and important key words. However, many parallels have been detected in the participating countries and therefore, the exchange on the development of new methods and approaches, e.g. tracking of migrating birds to be able to shut down the turbines just at the time they're flying by, is helpful, also to have one's own perspective mirrored from other countries.



**Figure 9: Analysis of articles from a Japanese newspaper, 1990 to 2010**

While the last few years have seen many disputed wind energy projects that were prominently in the media, many good projects have been accomplished and a lot of experience, good practice and innovative approaches are available, some in the field of policy or spatial planning and siting, others with new approaches for well-being, wildlife or landscape, distributional justice or procedural questions or participation. The wind industry itself has brought forward guidance on acceptance issues, e.g. CanWEA's Best Practices for Community Engagement and Public Consultation (CanWEA 2011).

However, as discussions in the working group, at the national expert meetings and with IEA Wind members show, exchange and transdisciplinary discussion is still not addressed regularly enough. Additionally, up to today, there is no "monitoring" of social acceptance. Therefore, IEA Wind Task 28 proposes to further deepen the exchange in the framework of this Task and to continue dissemination activities in IEA Wind countries (see Outlook).



#### **4.4. General remarks on social acceptance of wind energy projects**

The following paragraphs try to summarize some of the main issues around wind energy projects that have been discussed in connection with social acceptance:

Wind energy acceptance by the public and especially host communities features a great complexity of aspects and involves a great variety of actors: The project is composed of the geography and the ecology of the area, scale and technology of the turbines, size of the project, the culture of the host communities, ownership models and approaches for a fair distribution of costs and benefits, un- or over-familiarity with wind power, decision-making processes and communication methods etc. There are various sub-groups within the host communities, there are the market actors, the administrative levels (local / regional / national), the decision-makers, media, there are policies to be respected etc. etc.! To add to the complexity, most of the issues are interlinked and influence or depend on each other. Therefore, every project is unique and strategies or approaches have to be adapted to the local situation – there is no recipe for public acceptance!

Opposition is not just bad – but if taken seriously from the beginning, may improve the project to everybody's benefit, e.g., by taking into account the local knowledge. Many projects in different countries have shown that “win-win-situations” are possible. There is no 100% acceptance, but it is possible to “win heart and minds” of a large majority.

Knowledge management is an important component of social acceptance, especially within local administration and decision-makers who deal with wind energy projects for the first time. However, how messages are transported and if the messenger is trusted, may play a role of uttermost importance.

While there is a lot of experience from other energy technologies (e.g., nuclear or biomass) or infrastructure projects (e.g., airports or new roads), wind power features some specific characteristics that make social acceptance of wind energy projects a specific issue.

No energy production technology is without pitfall – in case of wind energy the impacts on landscape, partially ecosystems, quality of life etc. Therefore, wind energy projects sometimes are perceived as to come as a “trade-off” between clean energy production and nature protection, such as in the discussion about wind energy in forests. New technologies and supportive tools – e.g., detection of migrating birds – help to minimize environmental or health impacts.



## 5. Outlook

### 5.1 Unresolved issues and further work to be done

The following list samples some of the issues collected within IEA Wind Task 28 (non-exhaustive) that would benefit from further transnational and interdisciplinary discussion:

- Developing a holistic interdisciplinary view on issues such as communication, knowledge building, impact / risk assessment etc.
- Assess projects in a comprehensive way by taking into account all aspects ranging from the concerns of the host communities to the distribution of costs and benefits as well as the legislative framework and decision making
- Integration of knowledge of social acceptance into study curricula, e.g., engineering, project managers, administrators etc.
- Further knowledge on the impacts of wind farms on the quality of life, for example concerning noise and sound, long-term exposure, impacts on sleep physiology or the efficacy of setbacks
- Further knowledge on the environmental impacts, on specific species and their changed behavior, but also on the ecosystem as a whole and for long-term observation
- Transfer of social science research into practice
- Further knowledge on mass media and social media influence on social acceptance

Therefore, issues and topics to be discussed in-depth in a second phase of IEA Wind Task 28 could be:

#### *Measurement and monitoring*

- Tracking of social acceptance of wind power in IEA Wind countries, “monitoring” of social acceptance
- Quantification / valuation of the phenomenon of social acceptance and the impact of where it has not been sought
- Assessment of the magnitude of the issue and tracking of developments.
- Possible result: one or two social acceptance “indicators” that could be reported on IEA Wind level

#### *Good Practices and Evaluation*

- Documentation of existing policies and standards that have been demonstrated to increase social acceptance
- Evaluation of checklists and guidelines as well as their use, taking into account the whole life-cycle of wind turbines
- Assessment of common structures in successful supporting organizations and dissemination (e.g. neutral intermediaries)



### *Discussion of new issues*

- Discussion of current and new issues influencing social acceptance that are being debated in the participating countries
- Stressing of research gaps
- Foreseeable topics are (far) off-shore, repowering, impacts on ecosystems and species, electricity grid expansion due to wind energy production, noise etc.

Task 28 would very welcome to discuss social acceptance of wind energy projects with further countries of IEA Wind, including countries from the south or emerging countries.

## **5.2 Outlook on second period**

Social acceptance still is an issue worth discussing in countries that rely on wind power to achieve their energy policy goals. With more and more wind turbines in IEA Wind countries, exchange on successful strategies will become even more important. Repowering, offshore, expansion of the grid, still larger turbines etc. will provoke new debates that need to be understood and where new approaches might be helpful.

The IEA Wind Task 28 working group therefore suggests to extend the Task for a second period, from 2012 to 2015. Some of the issues to be discussed, see above, 5.1 Unresolved issues and further work to be done. A Topical Expert Meeting would serve as a “success” or “performance control” of the first phase and give further inputs for the second phase (Biel, Switzerland, June 14<sup>th</sup> to 16<sup>th</sup> 2012).

For further details, see the extension proposal.



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## Appendix A: List of working group participants

The numbers in brackets give the collaboration time of each working group member.

### *Canada*

- Maya Jegen, Université du Québec à Montréal, Département de science politique (2008 - 2012)

### *Denmark*

- Lene Nielsen, Ministry of Climate and Energy, Energistyrelsen (2009 - 2012)

### *Germany*

- Andrea Meyer, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Referat KI III 1 – Grundsatzfragen der Erneuerbaren Energien (2008 - 2012)
- Petra Schweizer-Ries und Jan Hildebrand (Zoellner), Institut für Psychologie, Otto-von-Guericke-University, Magdeburg (2008 - 2012)
- Gundula Hübner, Martin-Luther-University, Wittenberg, Institut für Psychologie, Soziale Psychologie (2008 - 2012)

### *Ireland*

- Geraint Ellis, Queen`s University Belfast (2011 - 2012)
- Matthew Kennedy, Sustainable Energy Authority Ireland (2012)
- Martin McCarthy, formerly Sustainable Energy Authority, Renewable Energy Information Office, now EirGrid (2008 - 2011)
- Hillary Tovey, Trinity College, Department of Sociology, Dublin (2009)

### *Japan*

- Yasushi Maruyama, Nagoya University, Department of Social and Human Environment Graduate School of Environmental Science (2009 - 2012)

### *Finland*

- Olli Laitinen, Motiva Oy (2009 - 2012)
- Anna Koskinen, formerly wpd Finland Oy (2009 - 2010)

### *The Netherlands*

- Albert Jansen, NL Energie en Klimaat, Agentschap NL (2009 - 2012)
- Marion Bakker, NL Energie en Klimaat, Agentschap NL, (2012)
- Dorresteyn Michiel, formerly NL Energie en Klimaat, Agentschap NL (2010 – 2011)

### *Norway*

- Jøran Solli, Norwegian University of Science and Technology, Centre for Energy and Society, Department of Interdisciplinary Studies of Culture (2008 - 2012)



*Switzerland*

- Markus Geissmann, Swiss Federal Office of Energy, Department of wind energy (2008 - 2012)
- Robert Horbaty, Operating Agent, ENCO AG (2008 - 2012)
- Stefanie Huber, collaborator of the Operating Agent, ENCO AG (2009 – 2012)

*United States*

- Eric Lantz, National Renewable Energy Laboratory, National Wind Technology Center (2009-2012)
- Larry Flowers, formerly National Renewable Energy Laboratory, today leader of AWEA`s distributed and community initiative (2008-2012)





## Appendix B: List of expert meetings

*National Wind Technology Centre, Boulder, US, October 28th 2009*

Organized by Larry Flowers and Eric Lantz, NREL

Amongst others with

- Larry Flowers (NREL)
- James Walker (Vice Chairman of the Board Enxco, AWEA Past President)
- Martin Pasqualetti (Arizona State University)
- Ben Hoen (Lawrence Berkeley National Laboratory)
- Jeremy Firestone (University of Delaware)
- Kristen Goland (Iberdrola Renewables)
- Mark Bastasch (CH2M Hill)
- Robert Horbaty (Enco Energie-Consulting AG) – Task 28 Operating Agent
- Gordon Brittan (Montana State University)
- Ellen Lutz (Industry Consultant)
- Kevin Rackstraw ( Industry Consultant)
- Rich Vanderveen (Mackinaw Power)
- Tom Feiler (Clipper Windpower)
- Tom Gray (AWEA)
- Marion Trieste (GEOS Consulting)
- Michael Vickerman (ReNew Wisconsin)
- Dennis Scanlin (Appalachian State University)
- Sue Jones (Community Energy Partners)
- Peggy Beltrone (Montana County Commissioner)
- Ron Lehr (AWEA)
- Carl Zichella (CA Sierra Club)
- Nancy Jackson (The Climate and Energy Project)
- Thomas Carr (Western Interstate Energy Board)
- Lee Otteni (U.S. Bureau of Land Management)
- Tom Fair (V.P. Renewable Energy, Nevada Energy)
- Bonnie Ram (Energetics)

*EWEK 2010, Warsaw, Poland, April 21<sup>st</sup> 2010*

Organized by IEA Wind Task 28

Intended speakers (many could not make it to cancelled flights):

- Socio-political acceptance
  - Danish Wind Turbine Secretariat - an Important Initiative to Assist Municipalities - Joachim Holten Palvig (DK), Wind Turbine Secretariat
  - On the Interactions between Developers, Local Authorities and Local Citizens - Brid Walsh (IE), researcher at the National University of Ireland, Department of Geography



- Community acceptance
  - Preferences for Reducing Visual Disamenities from Offshore Wind Farms and Wind Farm Experience - What can We Learn? - Jacob Ladenburg (DK), Senior Research Fellow at the Danish Institute of Governmental Research
  - How to Resolve Environmental Disputes over Wind Farm Siting; Implications from Experiences in Japan - Kenshi Baba (JP), research scientist at the Central Research Institute of Electric Power Industry, Socio-Economic Research Center
- Market acceptance
  - German Experience with Acceptance of Wind Energy in the View of the Wind Industry - Claudia Grotz (DE), German Wind Industry Association (BWE), director of the policy and public relations department

*Galway Bay Hotel, Galway, Ireland, September 29th 2010*

Organized by Martin McCarthy and SEAI

- Opening Address - Grattan Healy, Meitheal Na Gaoithe, SEAI Board Member
- Winning Hearts and Minds: An Introduction to the IEA Task - Robert Horbaty, Project Manager for Task 28, ENCO AG, Switzerland
- Wind Developers Perspective on Policy Issues - Cairíona Diviney, Chief Operating Officer, IWEA and David Manning, Manager Public Affairs, SSE Renewables (Airtricity)
- The 'Small' Wind Developers' Perspective - Thomas Cooke, Chairman, Meitheal Na Gaoithe (Wind Co-operative)
- Acceptance of Grid Infrastructure - Claire Kane, Customer Relations Manager, EirGrid, Transmission System Operator and Bart Moriarty, ESB Networks, Distribution System Operator
- Social Sustainability and Wind Energy Development: Experiences from the Field - Bríd Walsh, NUIG
- Tarbert: Turbulence as a Dynamic in the Planning Process - Breffní Lennon, UCC
- Perceptions of Wind and Grid in Rural Communities: Opportunity or Burden? - Ciarán Lynch, Director of Rural Development, Tipperary Institute
- Communication with the Community - Joe Heron, Senior Consultant, Murray Consultants
- Wave Energy and People Power in North Mayo - James Ryan, Ocean Energy Development Unit, SEAI
- Design Instruments to Minimise Environmental Impacts - Kieran O'Malley, Senior Engineer, Fehily Timoney & Company
- Wind Energy Project Development: Focus on Planning and Environment - Jim Gannon, Associate Director, RPS Group
- Open Facilitated Discussion Session - Developing the day's concepts, ideas and approaches



*Amsterdam, the Netherlands, March 11<sup>th</sup> 2011*

Organized by Albert Jansen and Michiel Dorresteyn and by Agentschap NL

- Robert Horbaty: Task 28 & social acceptance of wind energy
- Ton van Dortmont (Nuon development): Social Acceptance in the Wieringermeerproject - A developers view
- Jacco Rodenburg (Province of North Holland): More power less Towers - The strategy of the province to find the balance between more green-power production, a better spatial quality and local (political) support
- Dirk Louter project (director wind farm Noord-Oost-polder Planning a 400 MW wind farm): How to cope with the social environment. The challenge of partnership.
- Arthur Vermeulen (Netherlands Wind Energy Association): The role of NWEA in the national wind discussion
- Paul van Beek (landscape architect): Landscapology - Lessons learned from landscaping windfarms

In the afternoon excursion to some Dutch wind farm projects

*Trondheim, Norway, October 15th 2011*

Organized by Jøran Solli and the Institutt for tverrfaglige kulturstudier from the Norges teknisk-naturvitenskapelige universitet NTNU

- Robert Horbaty: Task 28 & social acceptance of wind energy
- Duncan Halley (NTNU): On “GP Wind” and the ”Birdwind” – project”
- Jan Andor Foosnæs (NTE Transmission): On NTE and Social acceptance of Wind Energy – experiences from a developer
- Ole I. Gjerald (NTNU): The Licencing Process-An obstacle to Wind Energy in Norway?
- Gard H Hansen (NTNU): Norwegian offshore wind development
- Sara Heidenreich (NTNU): Offshore Wind and public acceptance

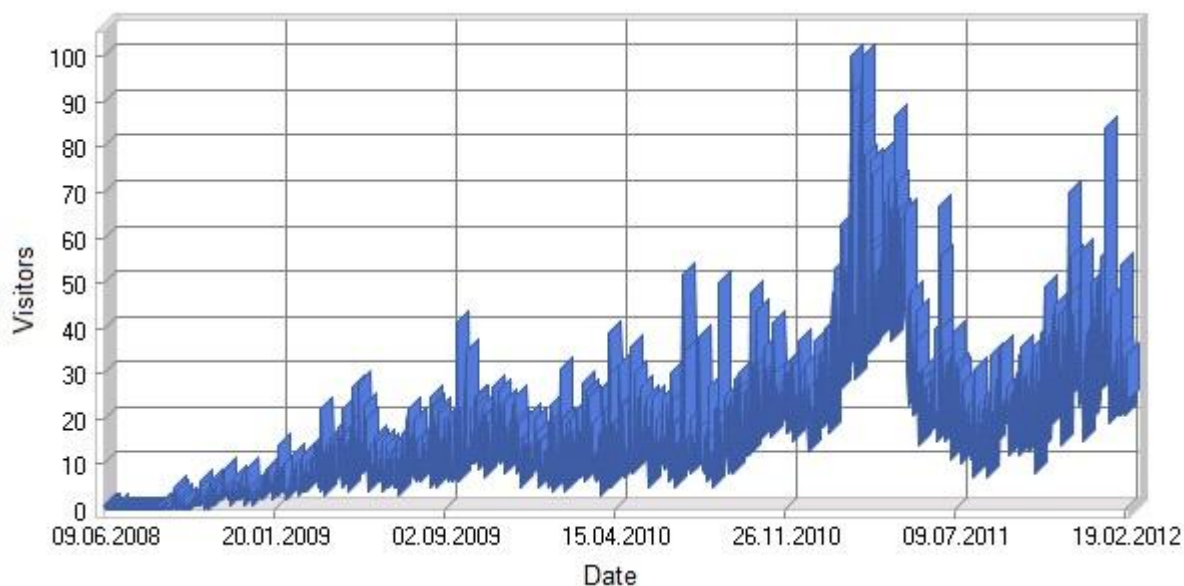


## Appendix C: Website [www.socialacceptance.ch](http://www.socialacceptance.ch)

The following table (Table 4) as well as the graphs (Figure 10, Figure 11, Figure 12, Figure 13, Figure 14) show the total respectively the development of the use of the website from June 2008 to February 2012.

**Table 4: Hits and visitors of [www.socialacceptance.ch](http://www.socialacceptance.ch) in total**

Total hits	272`741
Hits from visitors	219`088
Average hits per day	201
Average hits per visitor	8.54
Average page views per visitor	3.67
Visitors in total	25`646
Average visitors per day	18



**Figure 10 Development of daily visitors on the website [www.socialacceptance.ch](http://www.socialacceptance.ch)**

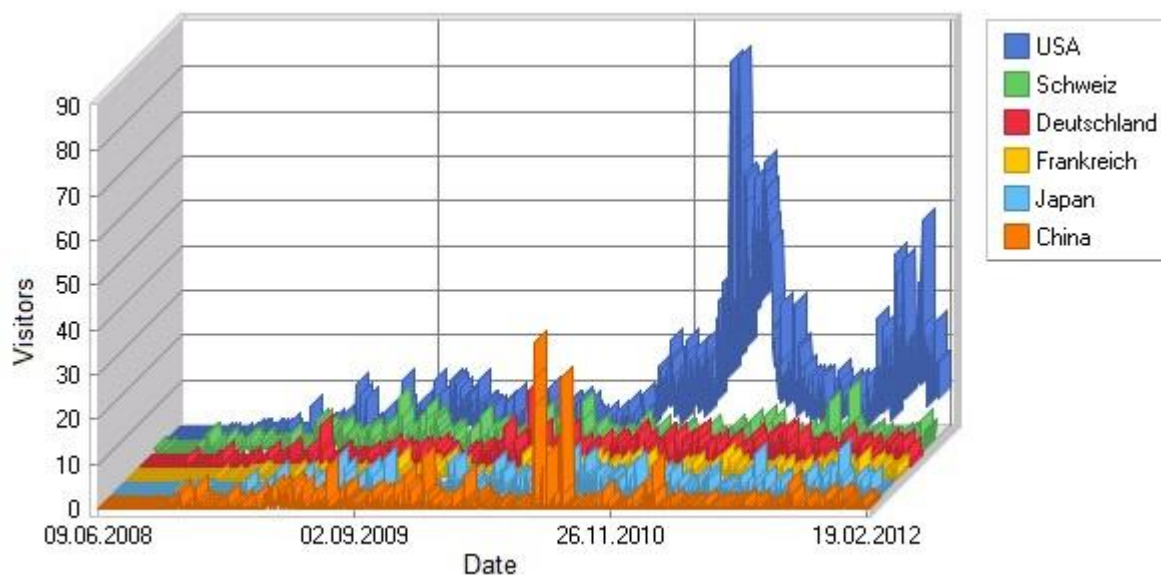


Figure 11 Development of daily visitors from the most important countries

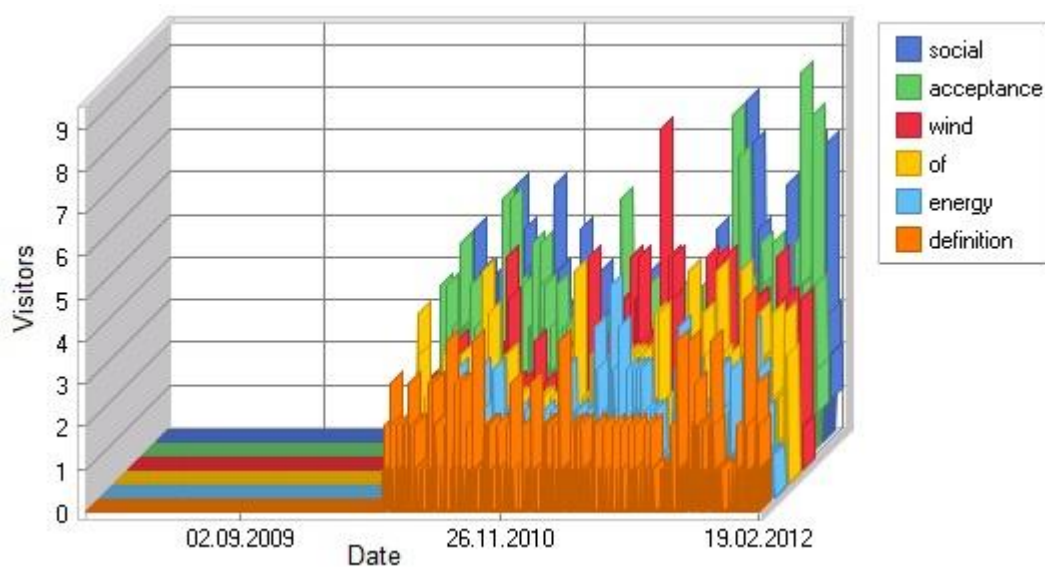


Figure 12 Development of search items leading to [www.socialacceptance.ch](http://www.socialacceptance.ch)

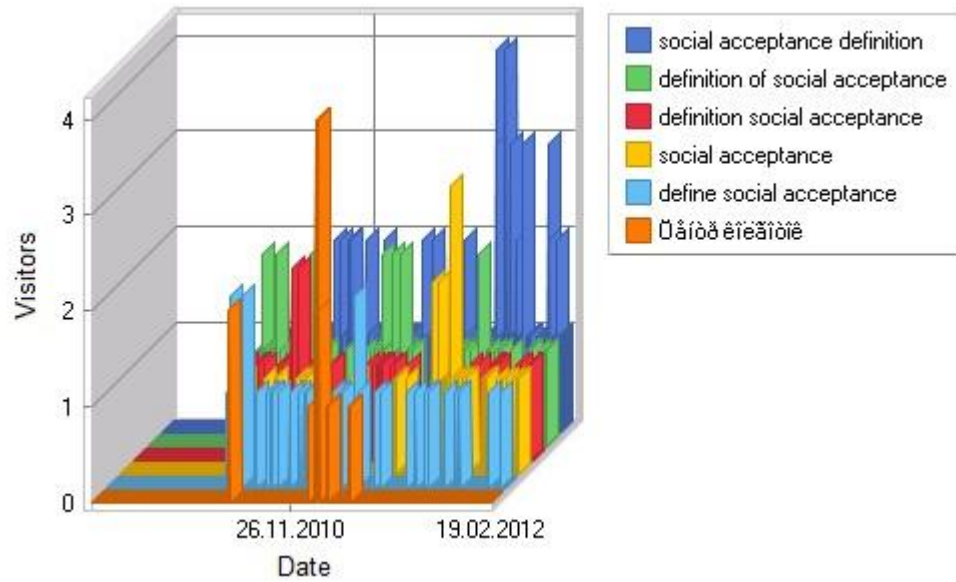


Figure 13 Development of search phrases leading to [www.socialacceptance.ch](http://www.socialacceptance.ch)

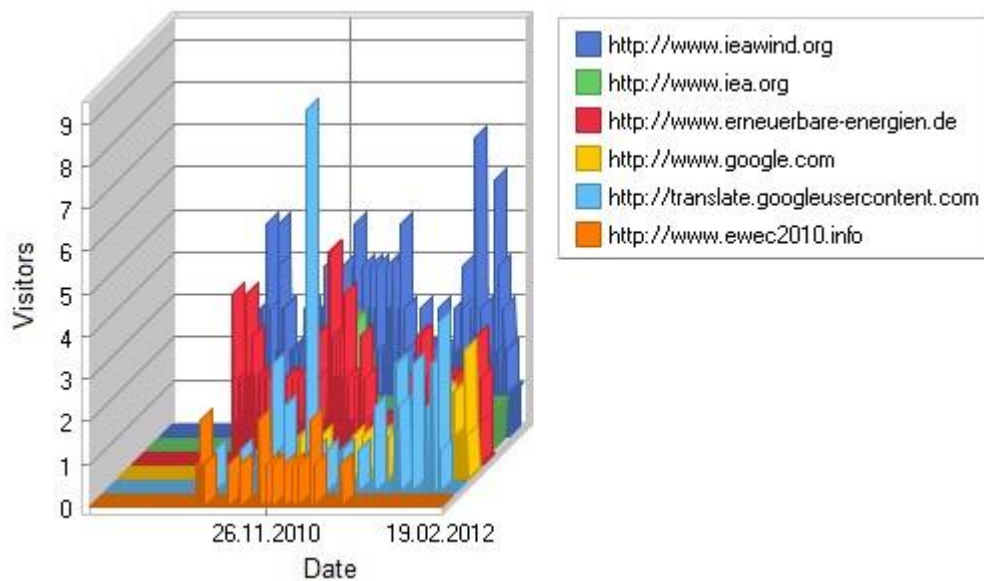


Figure 14 Development of websites directing to [www.socialacceptance.ch](http://www.socialacceptance.ch)