



Web-survey results & Panel

WinterWind 2016, 9-10.2.2016, Åre, Sweden

IEA Task 19 Operating Agent: Ville Lehtomäki

Web survey

- **Goal:** get input from WinterWind participants on future R&D topics for Task19 “Give voice to audience, Task19 listens”
 - Theme: *standardization topics for IEA Task 19 in 2016-2018*

- **Approach:**
 1. web survey and get statistical and freeform comments from WinterWind participants before 9Feb. Link to survey at winterwind.se
 2. More in-depth panel discussion on top rated topics & IEC 61400-15 “Site assessment” work

Google Survey

Winterwind 2016 - presurvey

*Required

Topic Rating

Rate the topics which in your opinion would remove barriers currently slowing down cold climate wind energy deployments most effectively. If you don't know or can't make up your mind, please don't answer that question.

1 - Market potential and limitations

	1	2	3	4	5	
not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very important

2 - Standards, certifications and recommended practices

	1	2	3	4	5	
not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very important

3 - Financing including risk, uncertainty and ice assessment

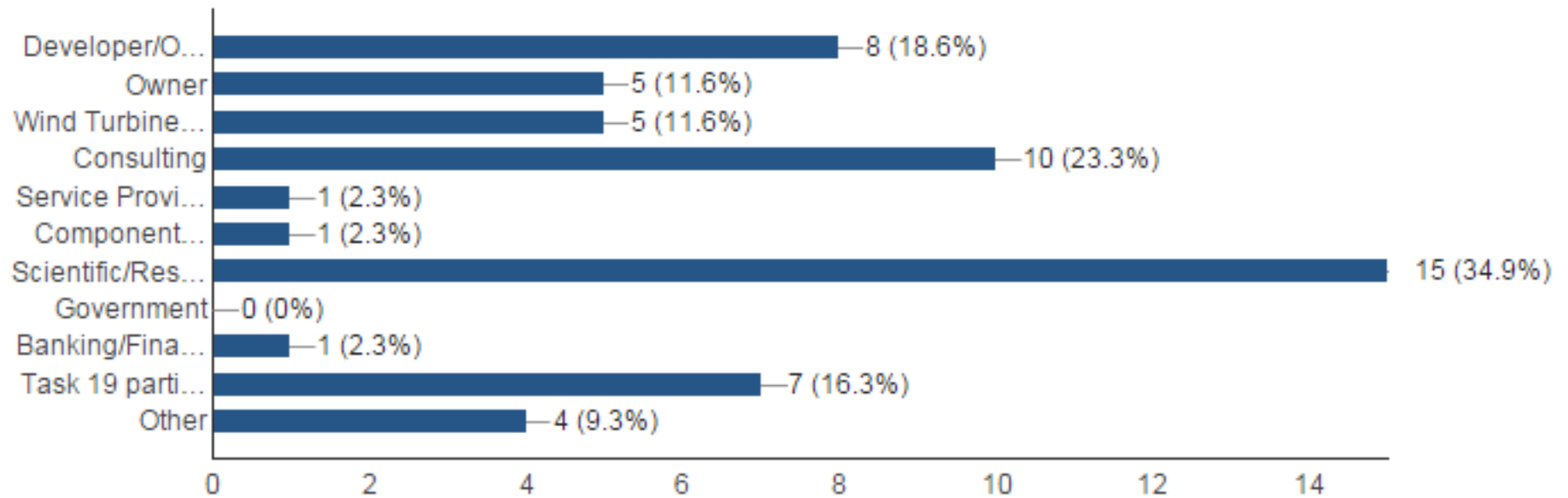
	1	2	3	4	5	
not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very important

4 - De/anti-icing, equipment and procedures

	1	2	3	4	5	
not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very important

Summary of survey – Fields of work

N=43

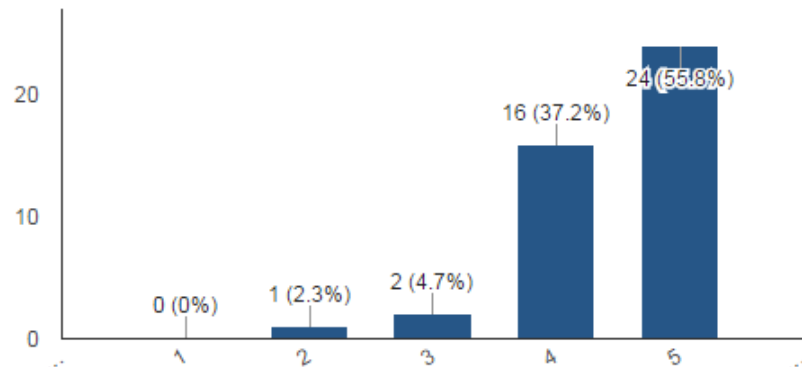




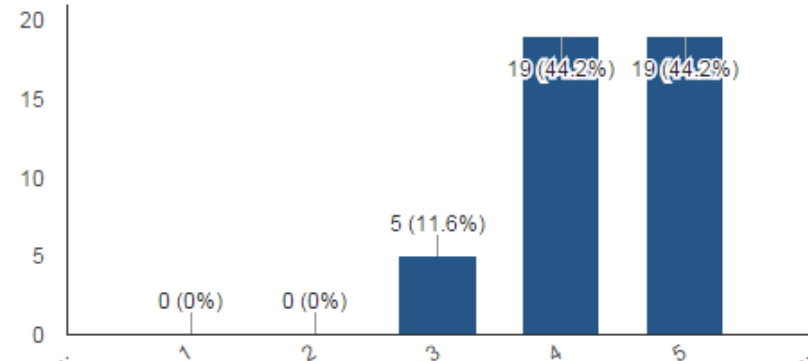
#	Survey topics
1	15 - Performance of turbine blade ice protection systems
2	13 - Ice measurements/ice detectors in laboratory or in field
3	4 - De/anti-icing, equipment and procedures
4	16 - Ice throw
5	11 - Assessment of production losses prior to deployment
6	3 - Financing including risk, uncertainty and ice assessment
7	2 - Standards, certifications and recommended practices
8	7 - Health, safety and environment (HSE)
9	12 - Standardized assessment of production losses based on SCADA data
10	6 - Operation, maintenance and repair
11	10 - Testing: test sites, field testing & lab testing
12	14 - Turbine sub-component testing in laboratory or full scale testing in field
13	1 - Market potential and limitations
14	5 - Construction and installation
15	8 - Grid issues
16	9 - Small wind turbines

Topic rating – most important

15 - Performance of turbine blade ice protection systems
(43 responses)



13 - Ice measurements/ice detectors in laboratory or in field
(43 responses)



Topics for panel discussion

Theme: standardization topics for IEA Task 19 in 2016-2018

1. Performance of turbine blade ice protection systems
 2. Ice measurements/ice detectors in laboratory or in field
- Questions for each topic
 1. Define the main challenges per topic
 2. Next steps towards solutions

Special topic: IEC 61400-15 “Site assessment”: Assessment of production losses prior to deployment (#4)

- What key elements the standard needs to have?