WInD-Pool: A Joint Database for Reliability Analyses

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WInD-Pool: A Joint Database for Reliability Analyses

Outline

- Management of maintenance data, standards and guidelines
- <u>Wind-Energy-Information-Data-Pool</u> (WInD-Pool)
- Consortium and participation



Motivation



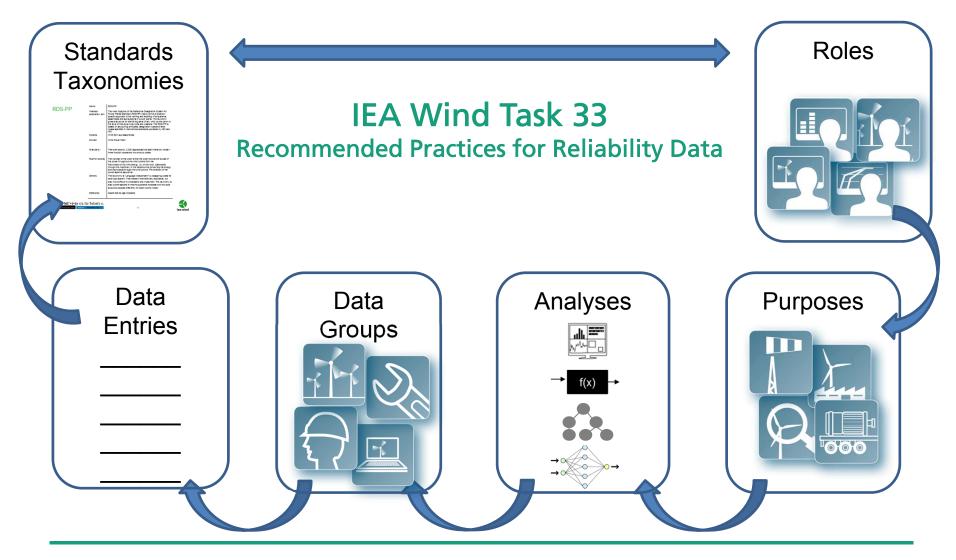






Upcoming international guideline









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Character and aims



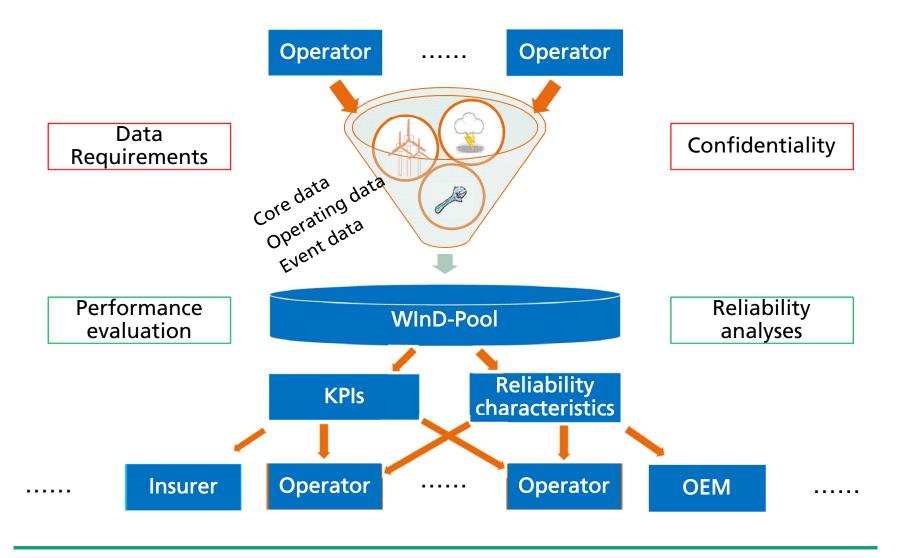
WInD-Pool = Wind-Energy-Information-Data-Pool

- Long-term <u>industry initiative</u>
- Involve <u>all stakeholders</u> in wind turbine reliability
- <u>Supported</u> by German federal ministry for economy and energy
- Funding is for development of <u>applications and business cases</u>
- Open for <u>onshore/offshore</u> and <u>national/international</u> partners
- Preparing a library for <u>reliability characteristics on component level</u>
- Allowing for <u>individual results</u> using the broad joint basis
- Provide a <u>benchmark platform</u>
- Allow for <u>highly aggregated trends for the public</u>



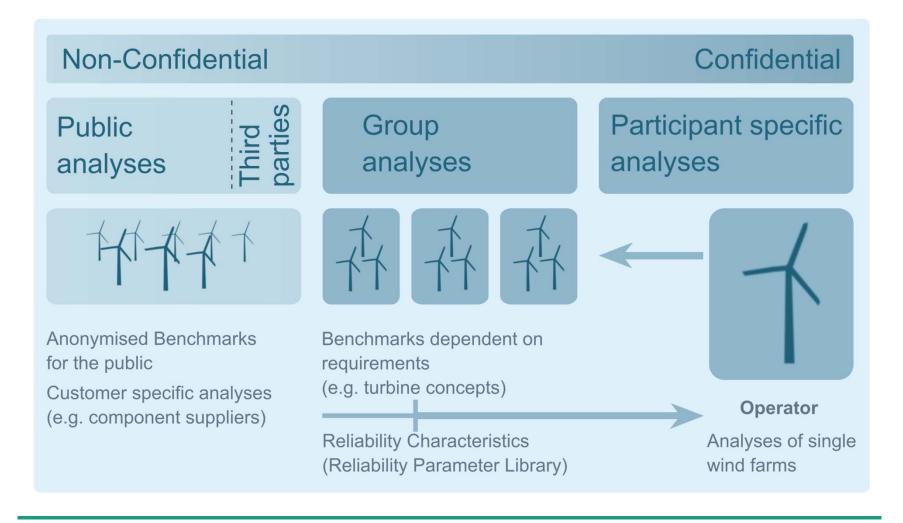
Approach















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Industry initiative



Current participation



- Owners / operators; onshore / offshore; national / international wind plants
- Insurer
- Service provider
- Component supplier
- Analysts
- MoU for collaboration with The Crown Estate and







Participation



- Participants accept
 - cooperation agreement
 - concept of confidentiality
 - minimum data requirements

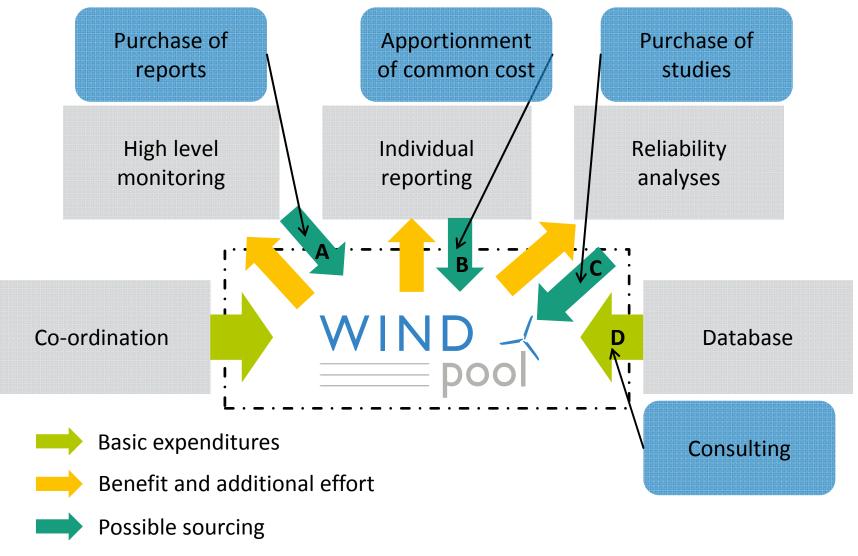
Non-Confidential		Confidential	
Public pite analyses H	Group analyses	Participant specific analyses	
++++	Core data	Operational data	Event data
	Plant ID	Power output	Event ID
Anonymised Benchmarks for the public Customer specific analyses (e.g. component suppliers)	Туре	Wind speed	Date of event
	Date of commiss	ioning Wind direction	Date of restart
	Start of data col	ection (Turbine Status)	Affected component
	Latitude	(Temperatures)	Kind of event
	Longitude	(Rotor speed)	(Failure Mode)

- Participants sponsor the public funded project with a small amount. Amount is smaller for Partners delivering data
- Partners support aims of the publicly funded project
- Participants need to prepare data sets in only one format, WInD-Pool is ready for forwarding relevant data to SPARTA



Sourcing after public funding







Summary / recommendation



- Identify your role and your purposes
- Find your appropriate standards/guidelines and align your database structure and contents
- Share data and benchmark your KPIs
- Benefit from results of a broad data basis
- ➔ In the long run the benefit will exceed the effort











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