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Performance Monitoring

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Potential benefits

For the owner/operator:

- Reduced O&M costs
- Reduced turbine failure rate
- Reduced H&S exposure
- Improved project availability



Potential benefits

For the sector:

- **Program R&D** based on data-analysis
- Development, improvement and validation of **design tools and decision support tools**
- Statistics to convince investors of business case **availability/performance**
- Information to the public (**image** of the sector)
- Etc.

How to organise in The Netherlands?

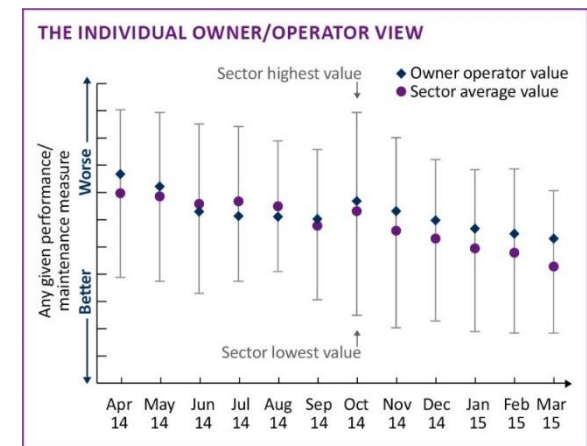
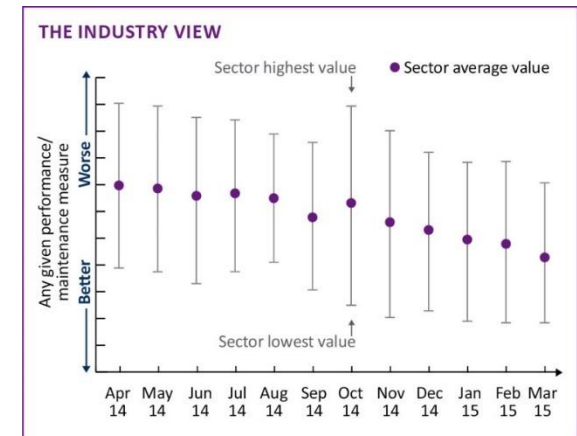
TKI WoZ formed a steering committee to advise the Ministry of Economic Affairs

Main results:

- Recommend owner/operators to join SPARTA
- Create a Dutch platform monitoring

SPARTA

- System Performance, Availability and Reliability Trend Analysis
- Initiated by The Crown Estate and ORE Catapult: very well organised (legal framework and governance)
- Benchmarking tool
- Anonymous reporting
- Fully operational since april 2015
- Nearly all installed capacity in UK included (94%)
- 10 owner/operators
- Open to international co-operation
- System level: 70 metrics, related to e.g. system downtime, repair interventions, weather conditions and crew transfers



- Gradually being transferred to the industry
- Steering Committee plans to further enhance/extend SPARTA
- Co-operation with Fraunhofer (Off Shore WMEP, now called WInD-Pool)



Why a Dutch platform?

SPARTA is a 'closed' system

Data are **not** available for third parties, but:

- Third parties (e.g. research organisations) have the possibility to submit 'value propositions'
- Owner/operators can decide to form working groups for specific topics/data-analysis

Dutch platform:

- To look after the interests of the Dutch owner/operators and sector
- To submit value propositions to enforce Dutch research



www.tki-windopzee.nl
