

Performance of Wind Projects Versus Pre-Construction Estimate - India

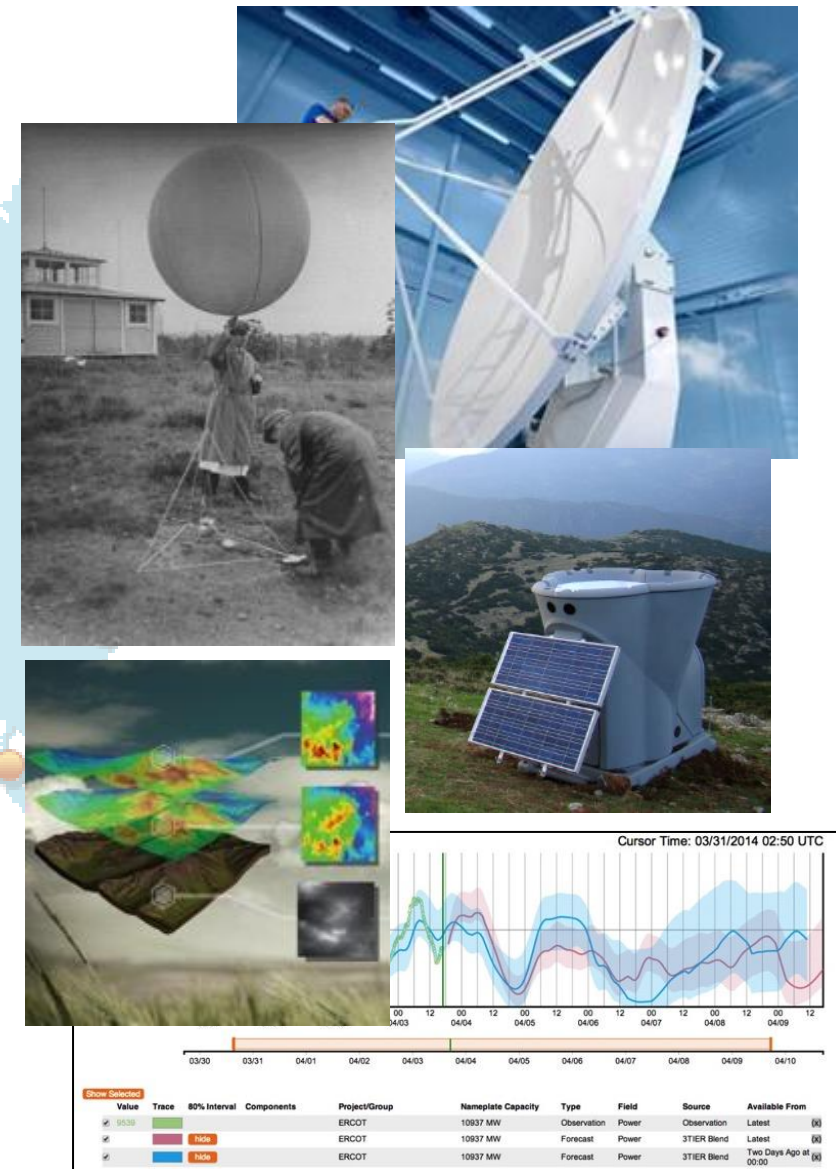
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VAISALA

Vaisala Overview

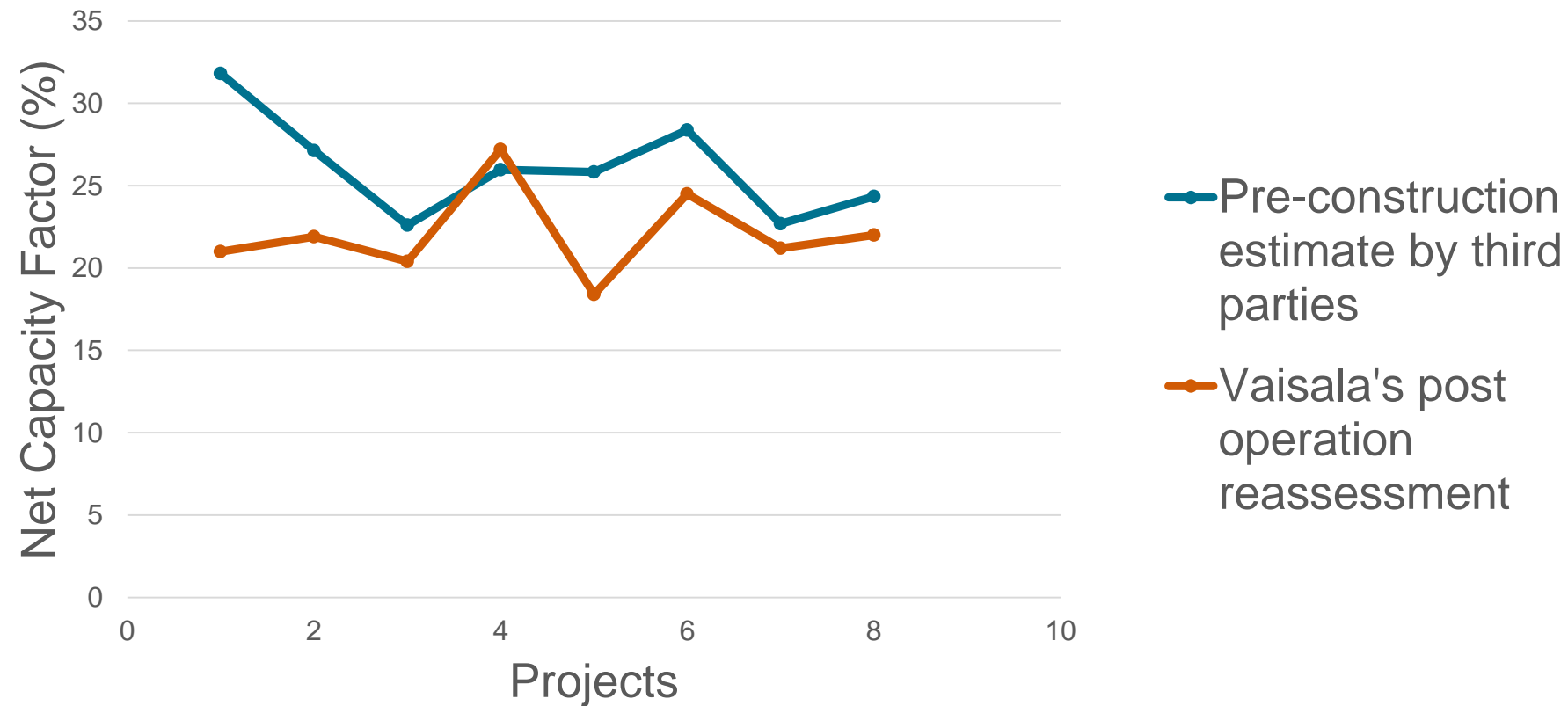
- Vaisala is a weather company started by Finnish Professor Vilho Väisälä in the 1930s
- 1500+ employees, 30 offices worldwide
- Primary business areas
 - Weather (includes Energy)
 - Controlled Environments
- Vaisala Energy services
 - Measurement systems (incl.. Triton, global lightning data)
 - Information services (incl.. Forecasting, Assessment)
 - **Over 250 wind due diligence assessments**
 - **Over 50 solar due diligence assessments**



Risks

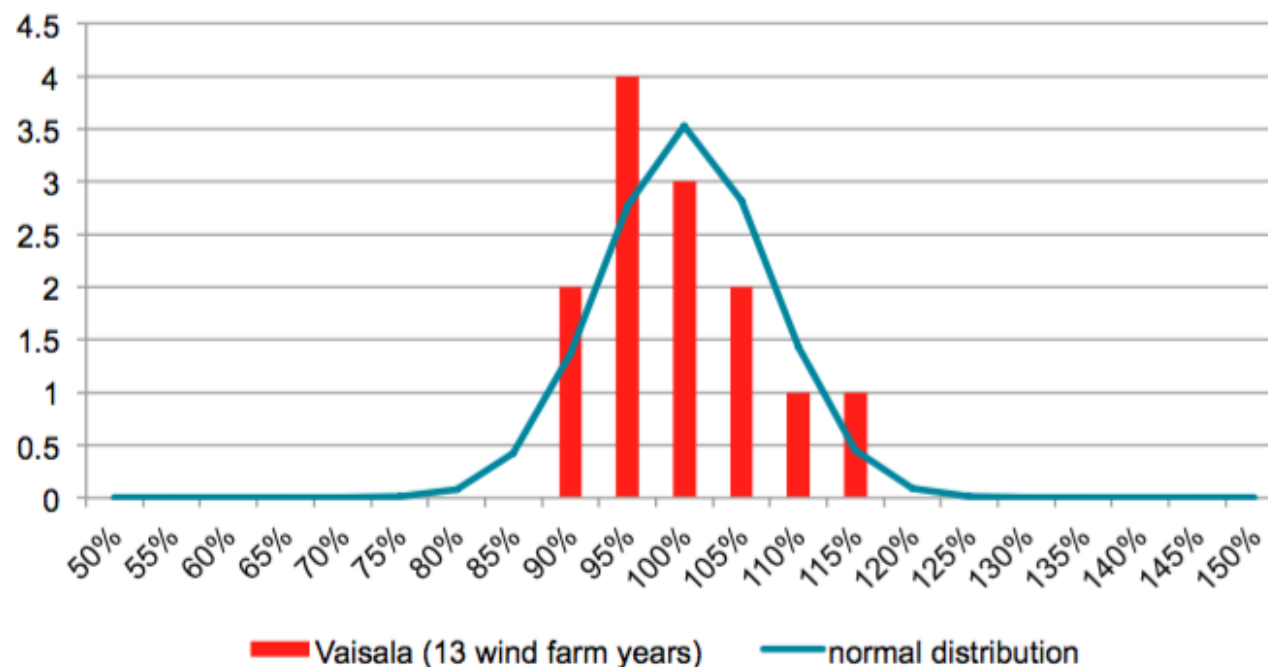
1. External Factors
2. Ongoing learning
3. Annual variability
4. Portfolio
5. Future wind turbines

Wind Farm Year Energy Deviations - India



Wind Farm Year Energy Deviations- Vaisala

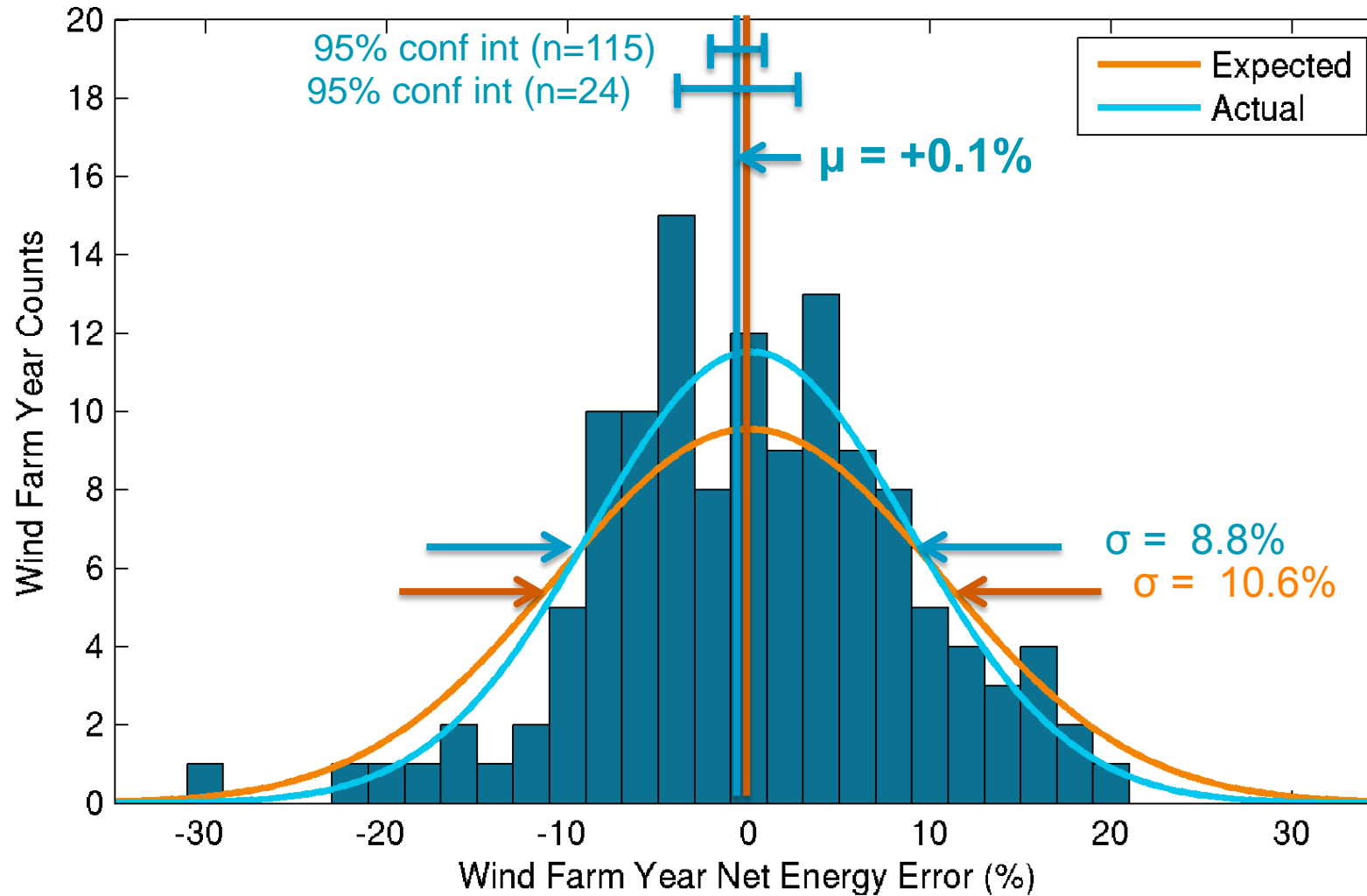
**Comparison of actual production data
to theoretical estimates**



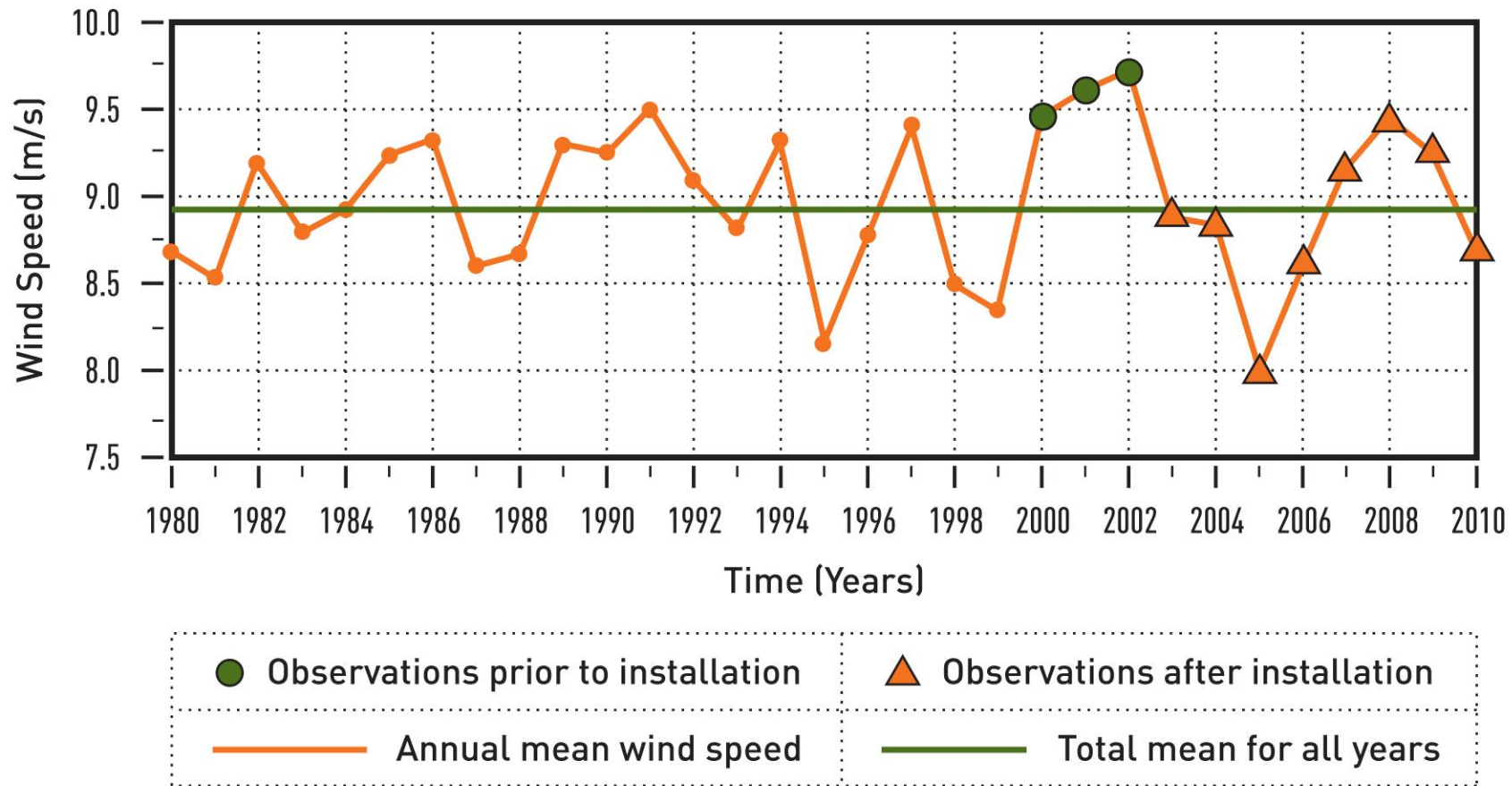
13 wind farm
years from 8
projects

+0.1% Gap
7.2% St Dev

Wind Farm Year Energy Deviations- US & others



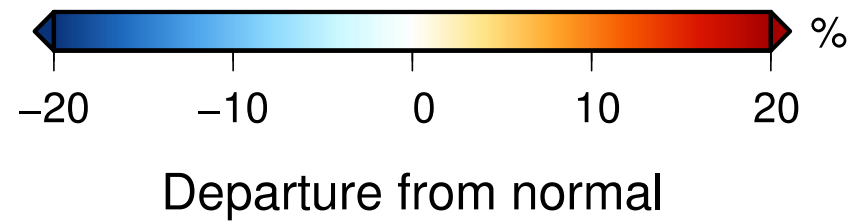
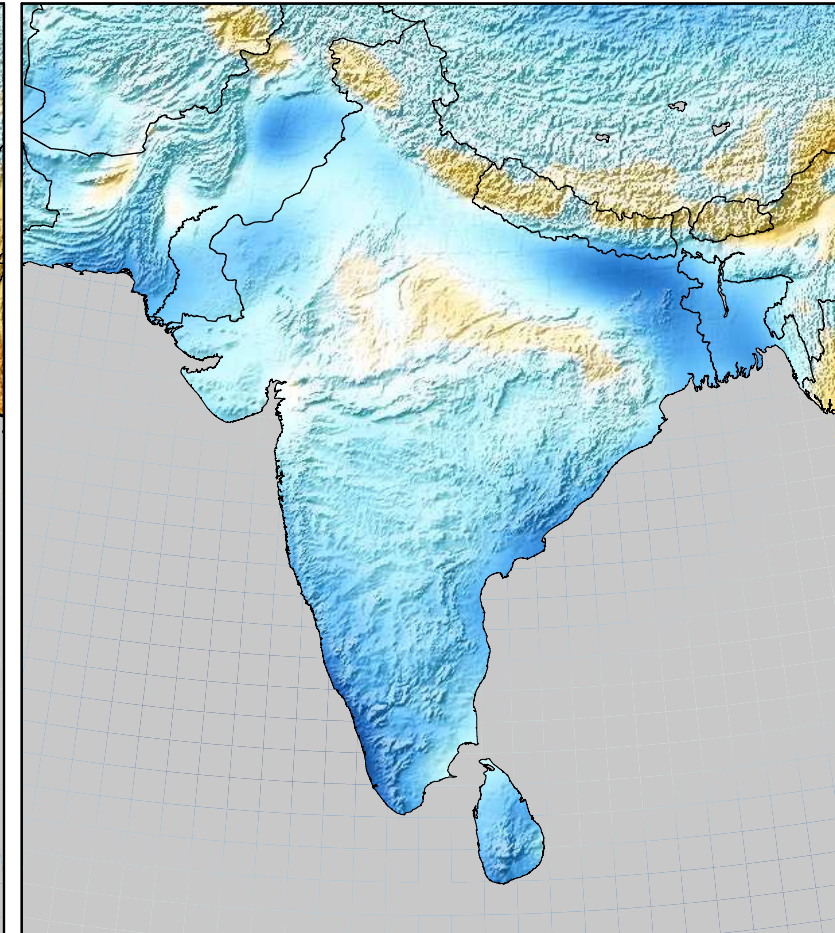
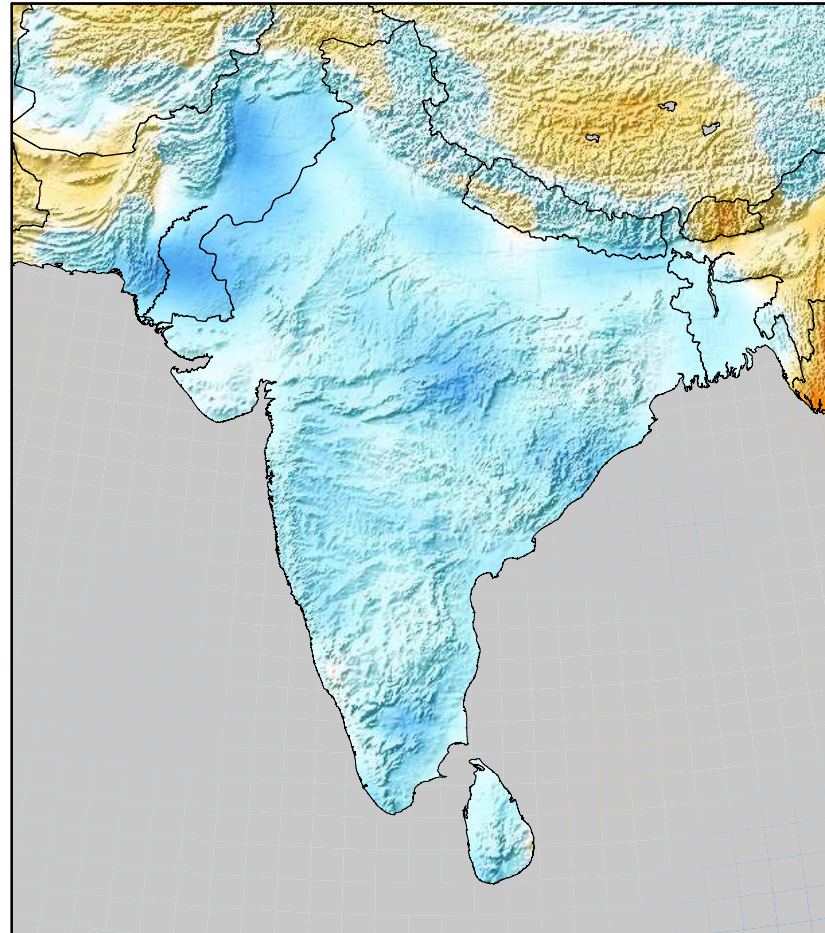
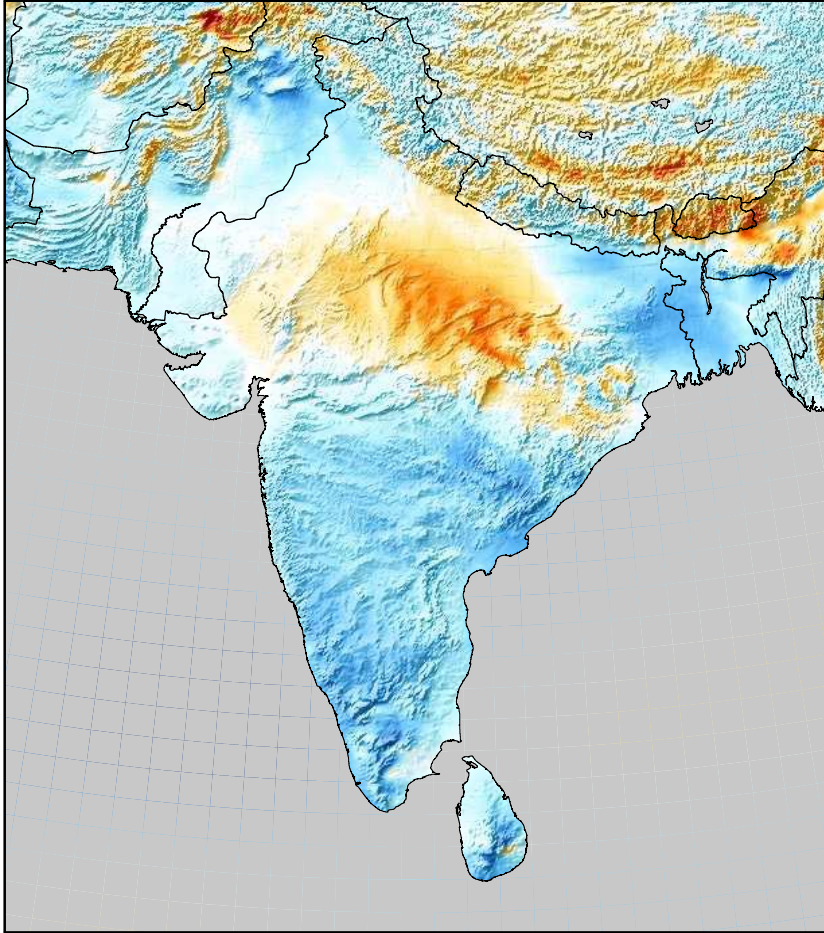
Time is critical to understanding site variability



NNRP-D

ERA

MERRA



Wind Speed from
April 2015 to March 2016

Risks Review

1. External Factors
2. Ongoing learning
3. Annual variability
4. Portfolio
5. Future wind turbines