IEA Task 36/51 WP3 Uncertainty / Probabilistic Forecasting: from 2021 to 2022/23

One review paper is submitted and under review. Highlights include:

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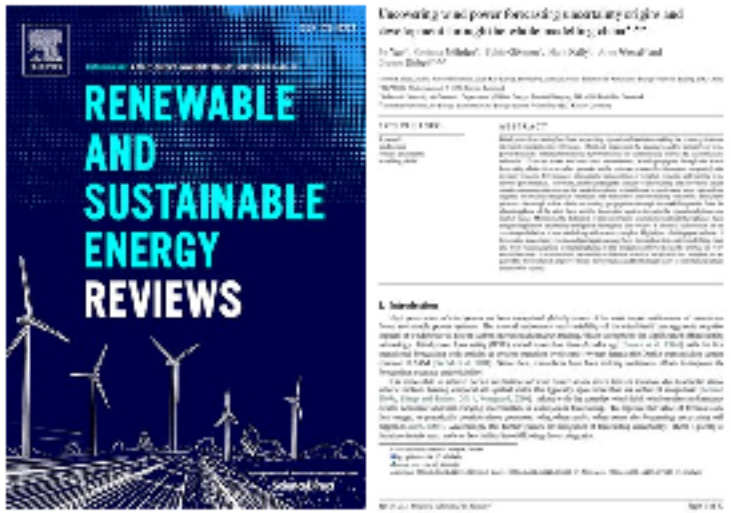
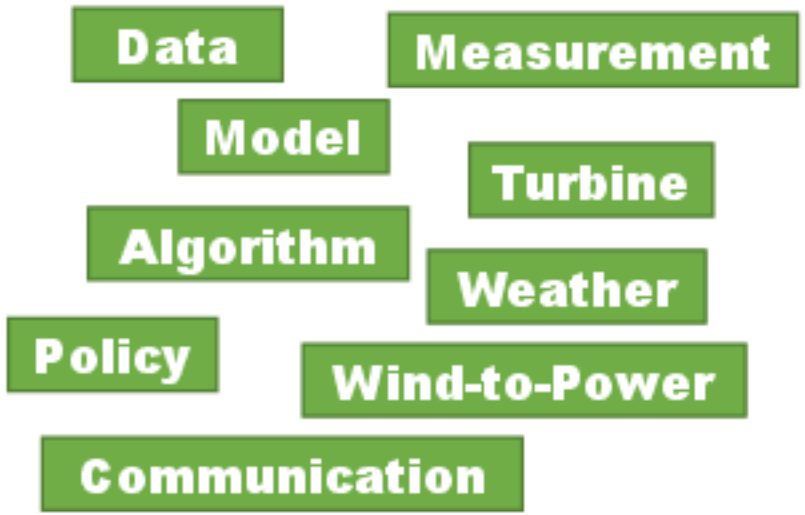
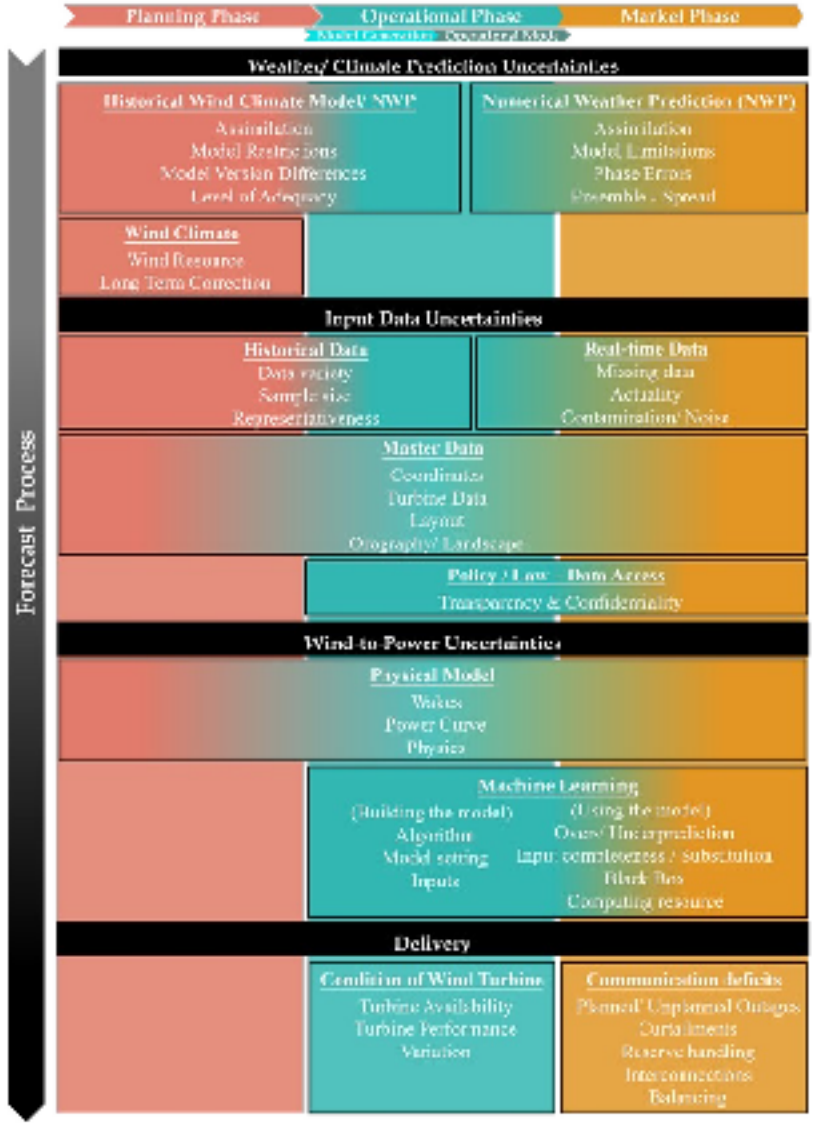
- **Uncertainty sources** are defined and described throughout the chain of forecast modelling.
- **Uncertainty mitigation** approaches for each type of uncertainty source **from planning, operation to market phase** are reviewed.
- An example of uncertainty validation is presented and discussed.







Aim and Motivation

What we did in 2021

"Dictionary" of Uncertainty

Book
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Tool

Our aim in 2021-22

"Calculator" of Uncertainty

- "dictionary" to learn the sources of uncertainty and how these uncertainties propagate throughout the modelling chain.
- "textbook" to guide NWP providers, power forecasters and end users, etc. to implement more rational and targeted uncertainty mitigation strategies.

Standard Validation Guideline

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? "Chain-based" Evaluation Tool

- "standard test/examination paper" to evaluate a forecast model/system, to know what kinds of uncertainty and how large of these uncertainties.
- "exemplary (or general hopefully) public platform" to illustrate the uncertainty chain and to compare different forecast models/systems – for the forecast developers, providers and end-users.

Potential collaboration and Results

To do list and expected results:

- Global standard dataset and validation example (e.g. on Github)
- Validation practice (report/paper…)
- Platform/Tool develop
- …

Note: extended horizon from seasonal to minute/second-ahead

WP1: Seasonal forecast

WP2: Minute scale forecast

Task 44:
Uncertainty source
Validate by use

Task 32:
Uncertainty source
Standardize the Dataset

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