



Standards for communication and data interfaces for renewable energy forecasting – IEA Task 36

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Why streamline terminologies and data communication?

Current situation between forecast providers and forecast users

- No clear terminology and definitions
- No standard way of exchanging data
- Time consuming clarification process with a high risk for misunderstandings
- Time consuming and repetitive tasks of setting up data communication

Future situation

- Well defined terminology and definitions
- Standard way of exchanging data
- Time can be spend understanding more complex and atypical business requirements
- Time can be spend modelling and improving accuracy
- Better forecast quality and lower costs – making renewables more competitive

How?

A pragmatic solution – structure and consistency

- Structured data description which allows for *additional* flexibility using meta data
- Aiming for streamlining/standardizing 80/20 of user needs
- Flexible framework allowing for custom information in a standardised structure
- Trade off between consistency and ideal data structure for different setups

Two levels of standardization

- Logical layer defines terminology and group information into logical entities with relevant parameters
- Detailed data structure and data transfer protocol

Development process

- Forecast providers and forecast users (utilities) are invited to join the work
- Key working group as well as reviewers and followers
- Structured process for developing, reviewing and releasing new version
- Review of existing and related standards
- IEA sub-task
- Coordinate with other relevant initiatives

Status and next steps

First steps taken

- First initial draft for logical layer has been created (and reviewed by first participants)
- Data structure and transfer protocol description (and examples) has just been to be started
- First academics, forecast providers & utilities joined the group – more is needed!

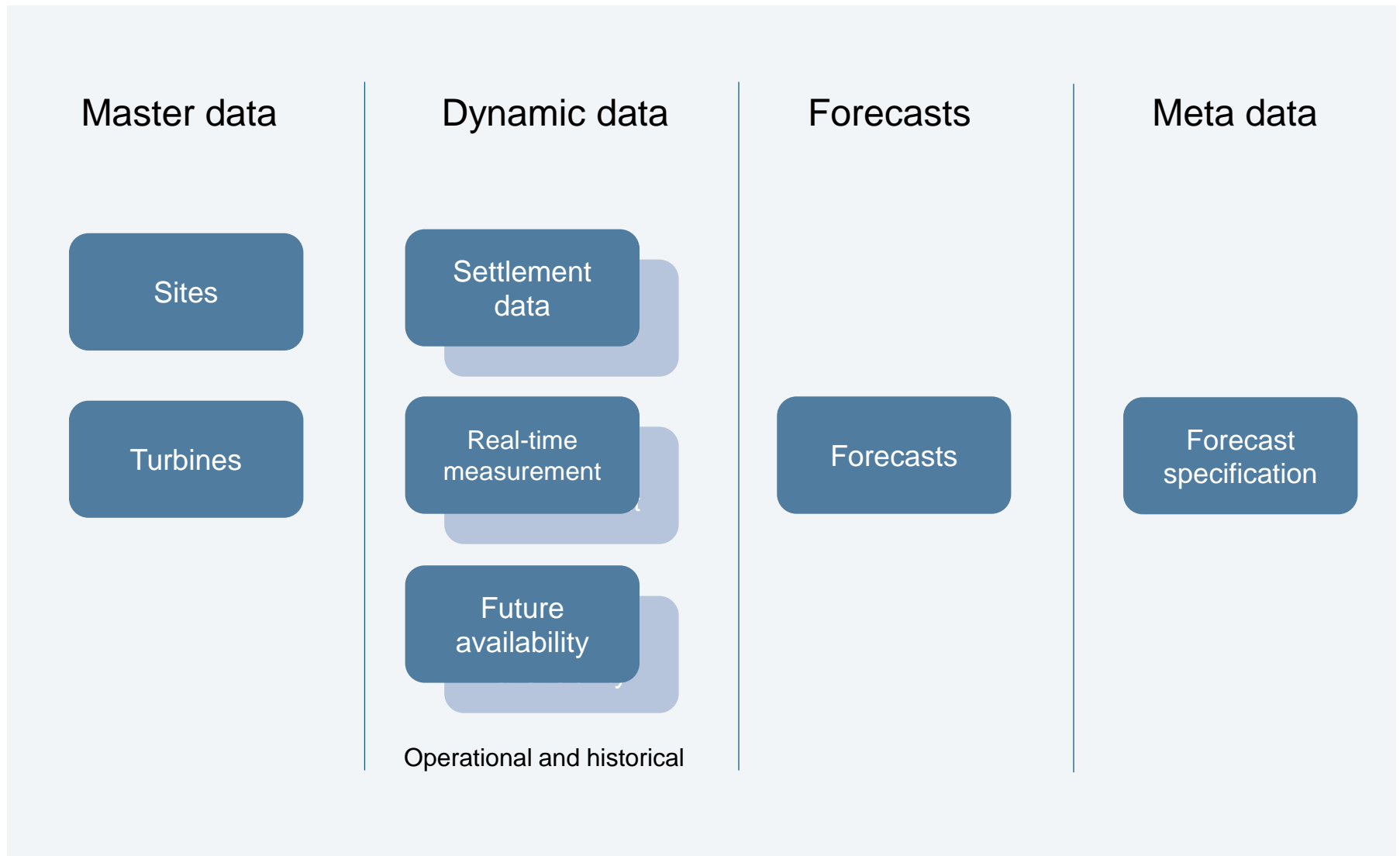
Logical layer

- Main logical entities defined and their logical relationship
 - Sites (and turbines)
 - Measurements (settlement and real-time)
 - Future availability
 - Forecasts
- Parameters have been defined (as either mandatory or optional)

Data specification and transfer protocol layer

- Replicate data structure from logical layer
- Initial thoughts on data field names, formats etc.
- Example files being developed
- Support for FTP/sFTP and web-services
- Support for REST API using CSV files and JSON

Logical layer



Questions and contact information



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