



Norwegian  
Meteorological  
Institute

# Stages of verification

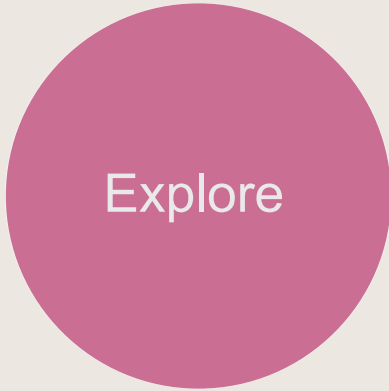
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# Purpose of verification

- Strengths and shortcomings of the models
- Do one model perform better than others?
- Look for systematic errors

# Stages of verification



Explore



Document



Communicate





- Different methods.
- Different groups of stations.
- Different models.

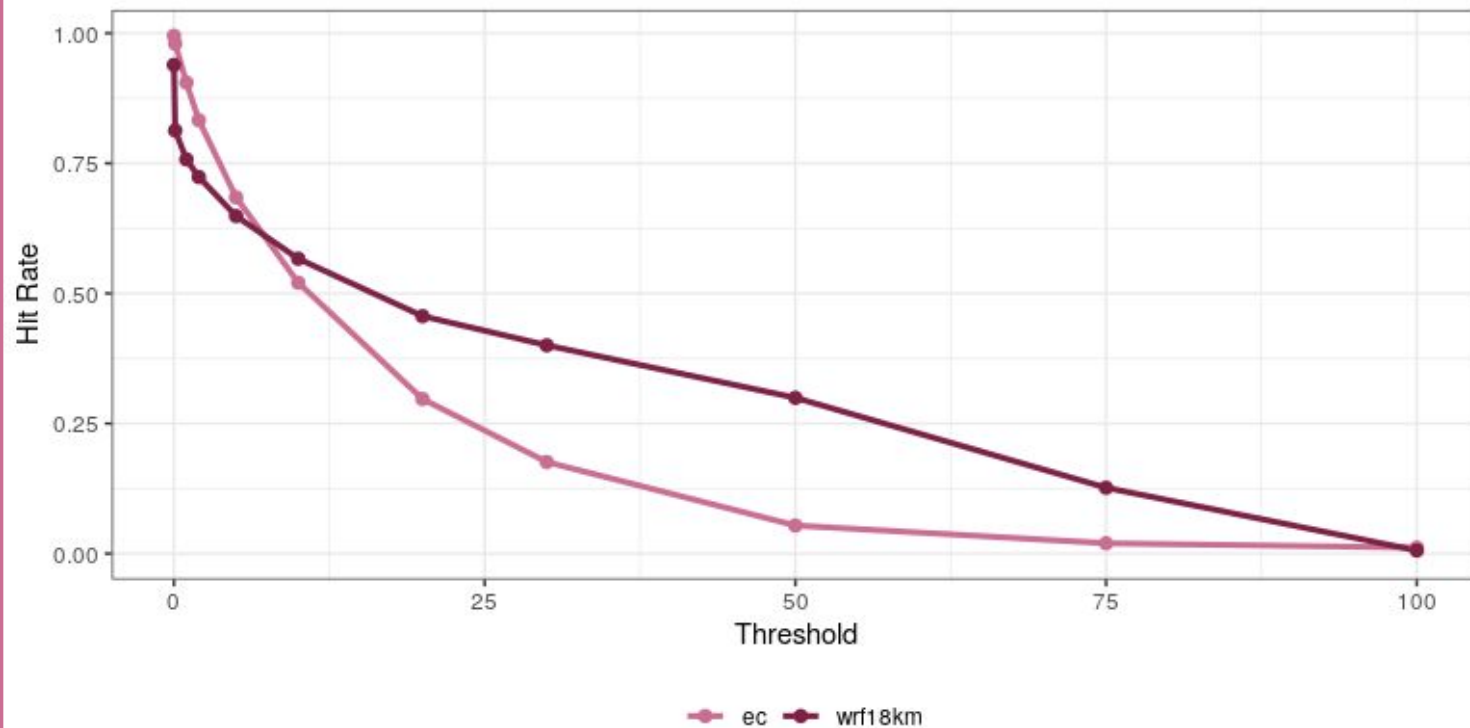
# Methods



- What information does this score give you?
- Does it agree or disagree with other results?
- Does it add value?

Hit Rate : 00:00 29 May 2019 - 00:00 30 Jul 2019

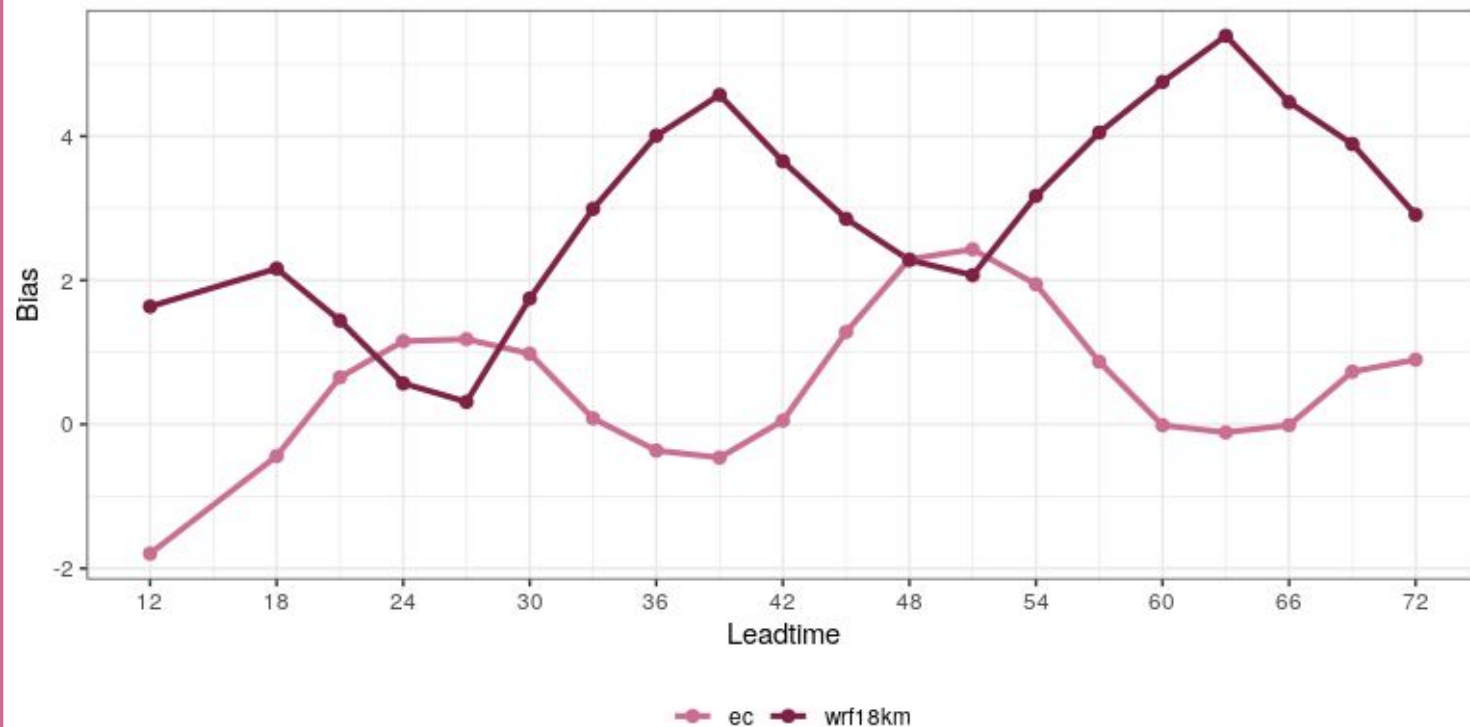
28 stations



Verification for AccPcp12h

Blas : 00:00 29 May 2019 - 00:00 30 Jul 2019

28 stations

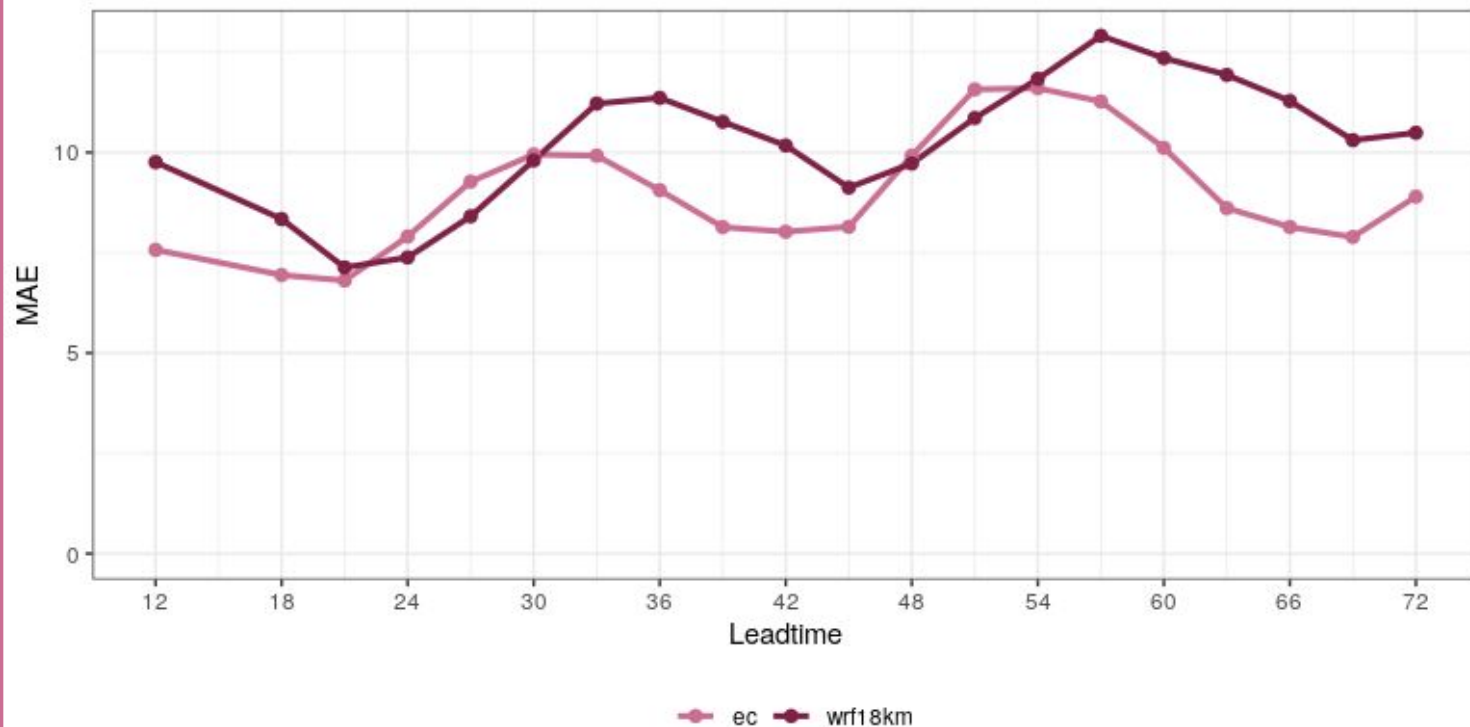


Verification for AccPcp12h



MAE : 00:00 29 May 2019 - 00:00 30 Jul 2019

28 stations



Verification for AccPcp12h

# Groups



- Geographical regions.
- Elevation above sea level.
- Surface type.
- Others?

# Models



- Best overall performance.
- Better in certain cases.



**Document**



- Select useful verification results.
- Decide boundaries for what is necessary to include.
- Structure!



# Other information

- The models verified.
- (Type of post-processing).
- Verification measures.
- Observations.



**A text summary about the main results is helpful for yourself and other readers.**



# Examples

Reports titled

“Verification of Operational

Weather Prediction Models...” at

[https://www.met.no/publikasjoner/  
met-info](https://www.met.no/publikasjoner/met-info)





**Communicate**



## **5 guiding questions:**



**What is the purpose?**



**Who is the receiver?**



**What is their prior  
knowledge?**



**How much time and  
interest do they have?**



**Written, oral or both?**

# Discussion on reporting

- Who are the reports for?
- Are there any external requirements or needs?
  - methods
  - grouping of stations
  - models
  - other?
- Which time periods are relevant, e.g. seasonal and/or yearly reports?
- Which are the most important verification results to include?