How to bring modellers and forecasters together – Eumetcal plans

Vesa Nietosvaara

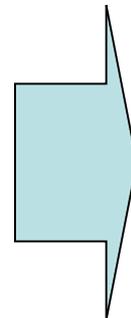## FMI/Eumetcal

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Two forecasts from this week Monday
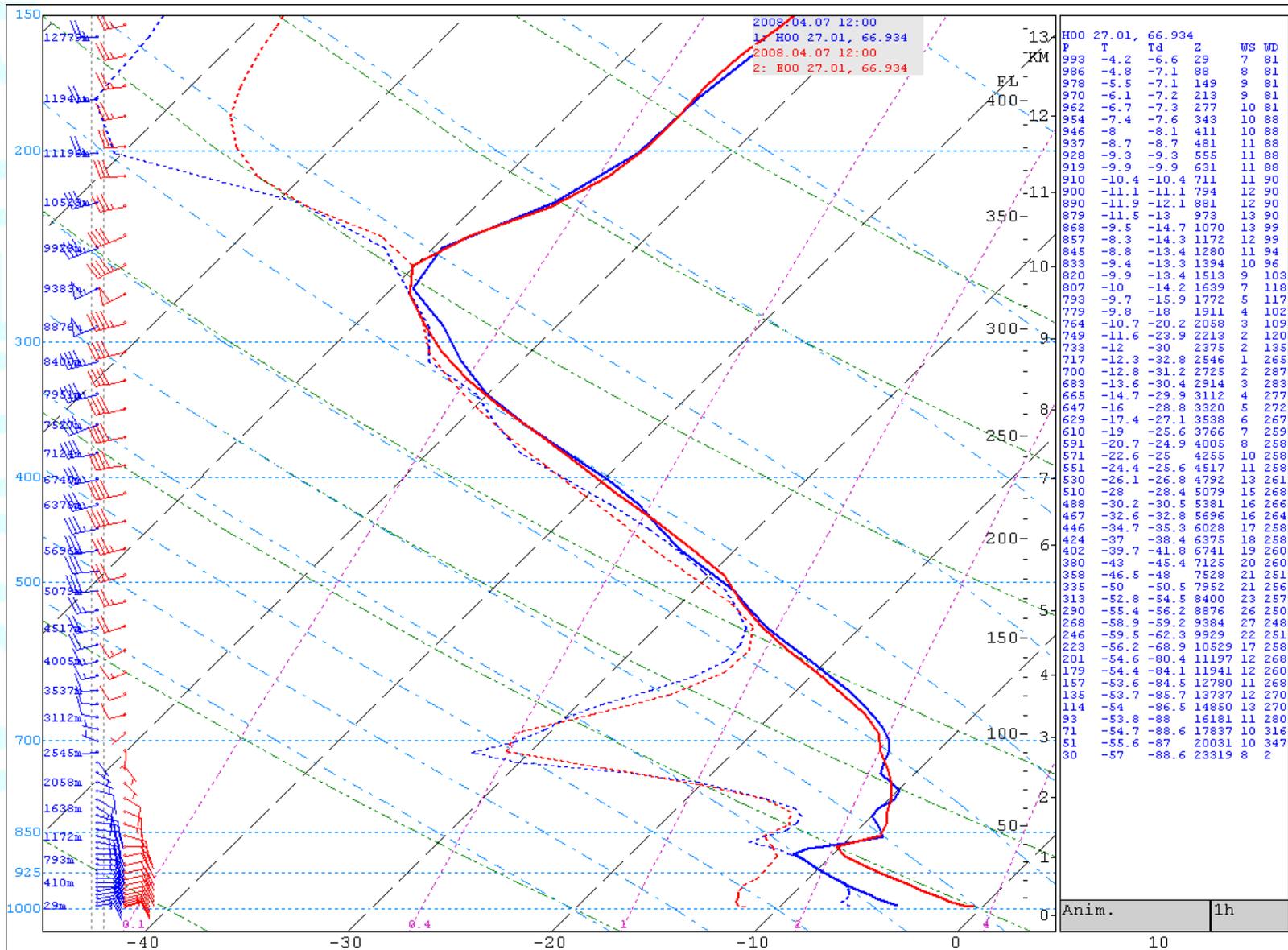
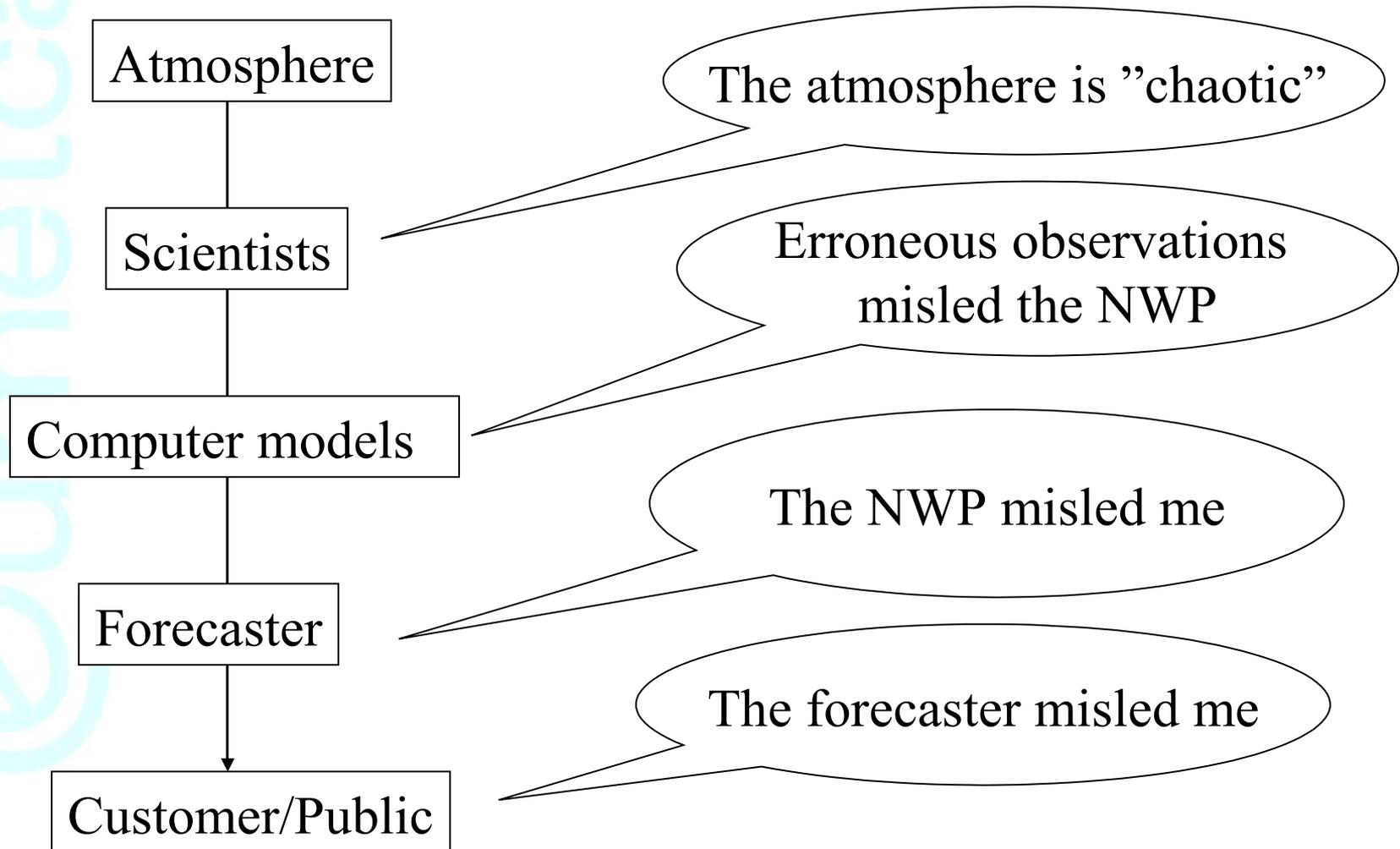# Forecaster – modelling/research communication

Modelling

- Model updates
- Verification results
- New products

Forecasting

- Data requests
- Presentation requests
- Major forecast failures ("blame game")

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"The Blame Game" or "The Passing of The Puck"
(Anders Persson)

Atmosphere

The atmosphere is "chaotic"

Scientists

Erroneous observations misled the NWP

Computer models

The NWP misled me

Forecaster

The forecaster misled me

Customer/Public

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Forecaster views..

- "Everyone knows models are not perfect, but would be great to know the dates when they are even less perfect than usual"

Forecaster views..

- "Model developers like to present successful cases of the model, but are not so willing to present failures"
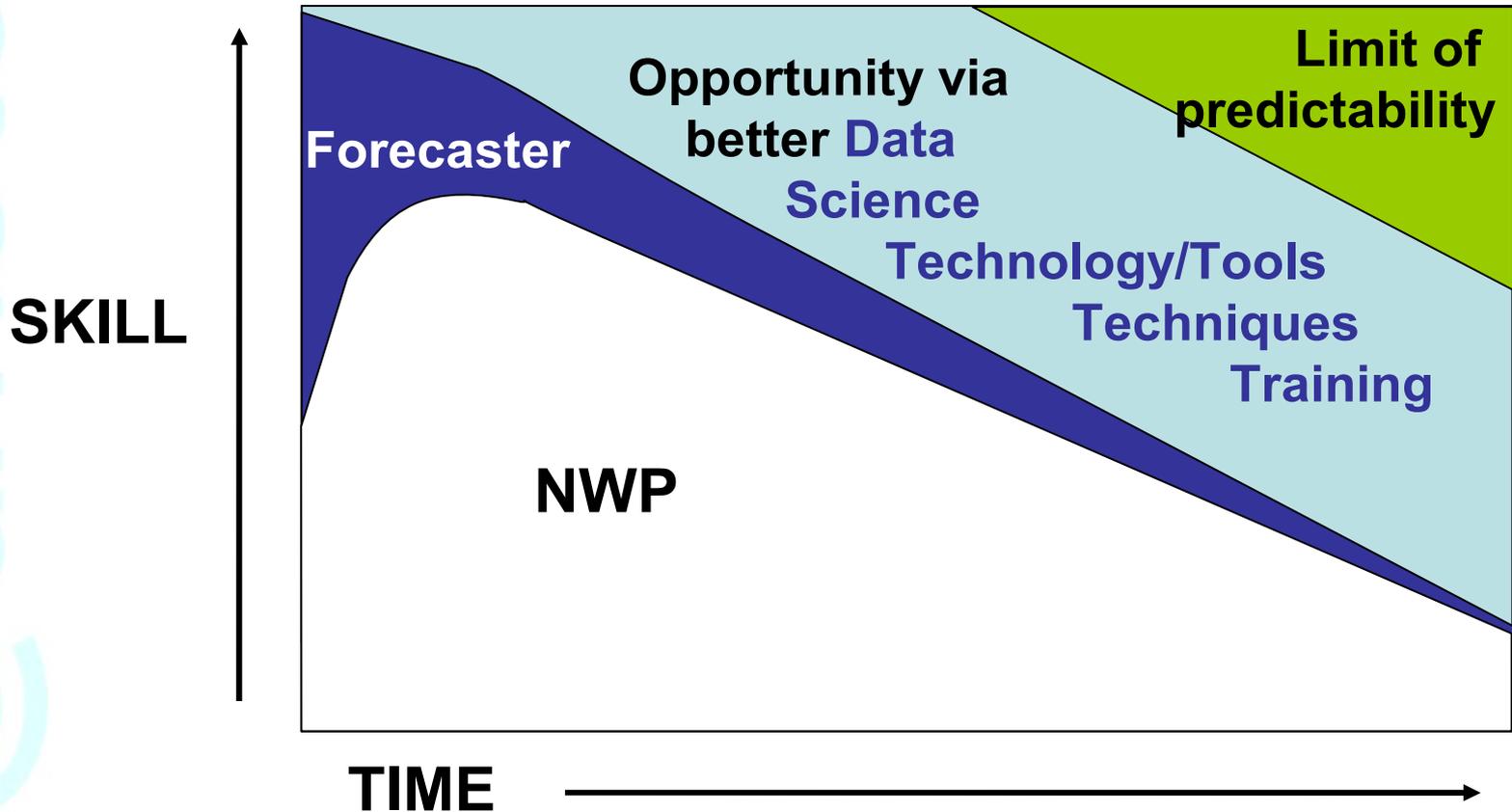
Forecaster views on NWP..

- "The culture of "blame game" is not desirable.

- Instead, stimulating a constructive discussion between developers and forecasters is needed.

Forecaster views …

- The verification highly sophisticated but more influenced by developers.

- The forecasts have steadily improved, but how to measure the human impact in this?
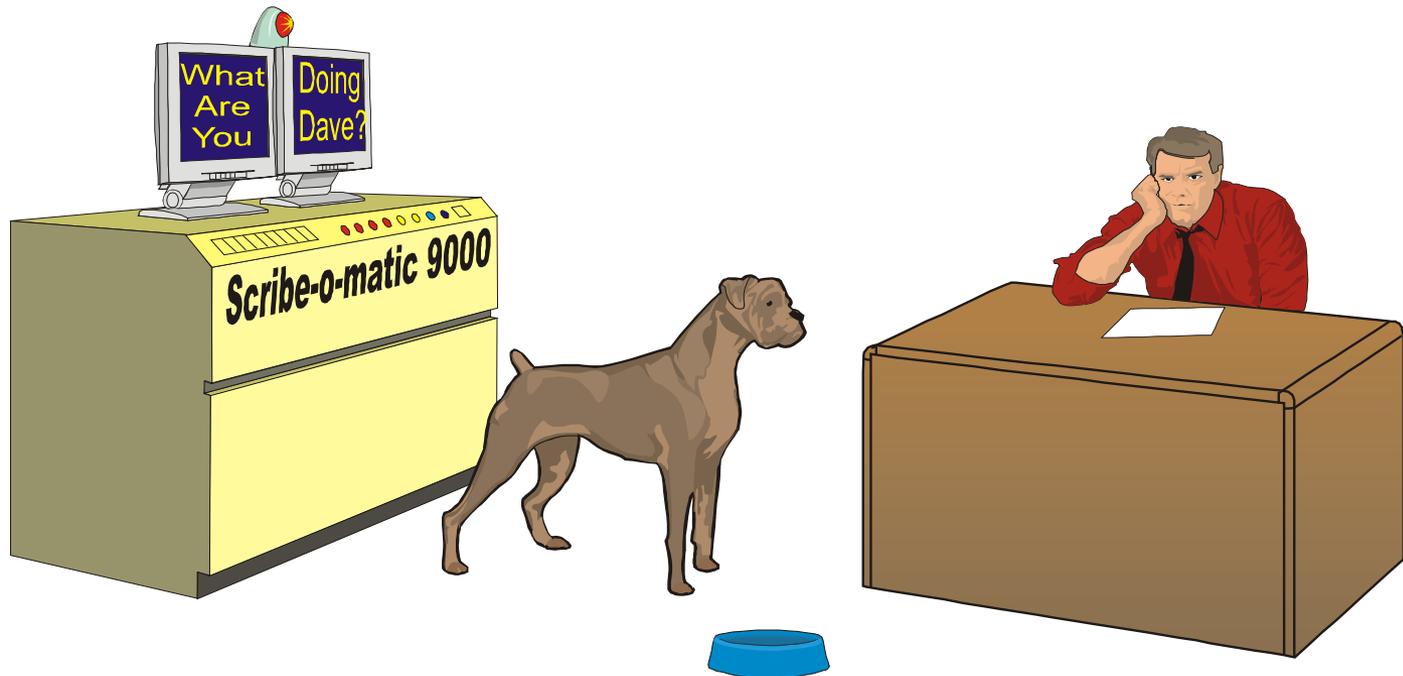
Adding Value

SKILL

TIME

Forecaster

Opportunity via better **Data Science**

Technology/Tools

Techniques

Training

Limit of predictability

NWP

Dave Ball (MS Canada)

Forecaster views …

- Work arrangements: no time for research or investigation of cases.

- Forecasters may feel a little bit off-side of the scientific discussion.

- Contacts to research departments sometimes weak…

- ..which can in turn lead to development of tools not relevant for forecasting practice.

What can Eumetcal do?

- Eumetcal (http://www.eumetcal.org) "European Virtual Organisation for Meteorological Training"

- NWP Working Group, with tasks to:
  - Identify needs for NWP training
  - Organise NWP training courses
  - Seek ways to increase communication between forecasters, research scientists and modellers
  - To give technical support for training delivery

A survey on NWP training needs

- NWP WG recently performed a survey on training needs and wishes among the member NMSs.

- Responses from 15 NMSs

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The greatest needs in NWP training

- Nowcasting and short range forecasting
- Probabilistic forecasting
- Severe weather forecasting and HIW in general
- Strengths and weaknesses of the various models
- Tools for validating models
- Learning how to use right data at the right moment

The importance of some components in NWP training

- The following themes are regarded as particularly important:
  - Predictability
  - Ensemble prediction
  - Decision making process
  - Mesoscale models
  - Nowcasting

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Suggestions for enhancing the communication

- A common discussion forum
- Joint and regular workshops: national, international, regional or model-specific workshops
- Giving forecasters time for research projects and researchers time for getting acquainted with a real forecasting
- Case studies worked out together
- "Hot link" between modellers and forecasters..

Future plans

- Building more contacts with NWP experts (particularly LAM community)

- Collecting and creating training material

- Becoming aware of potential instructors for future Eumetcal NWP courses

Thank you…

- …for your attention!

- … and for speaking out your suggestions now!

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