

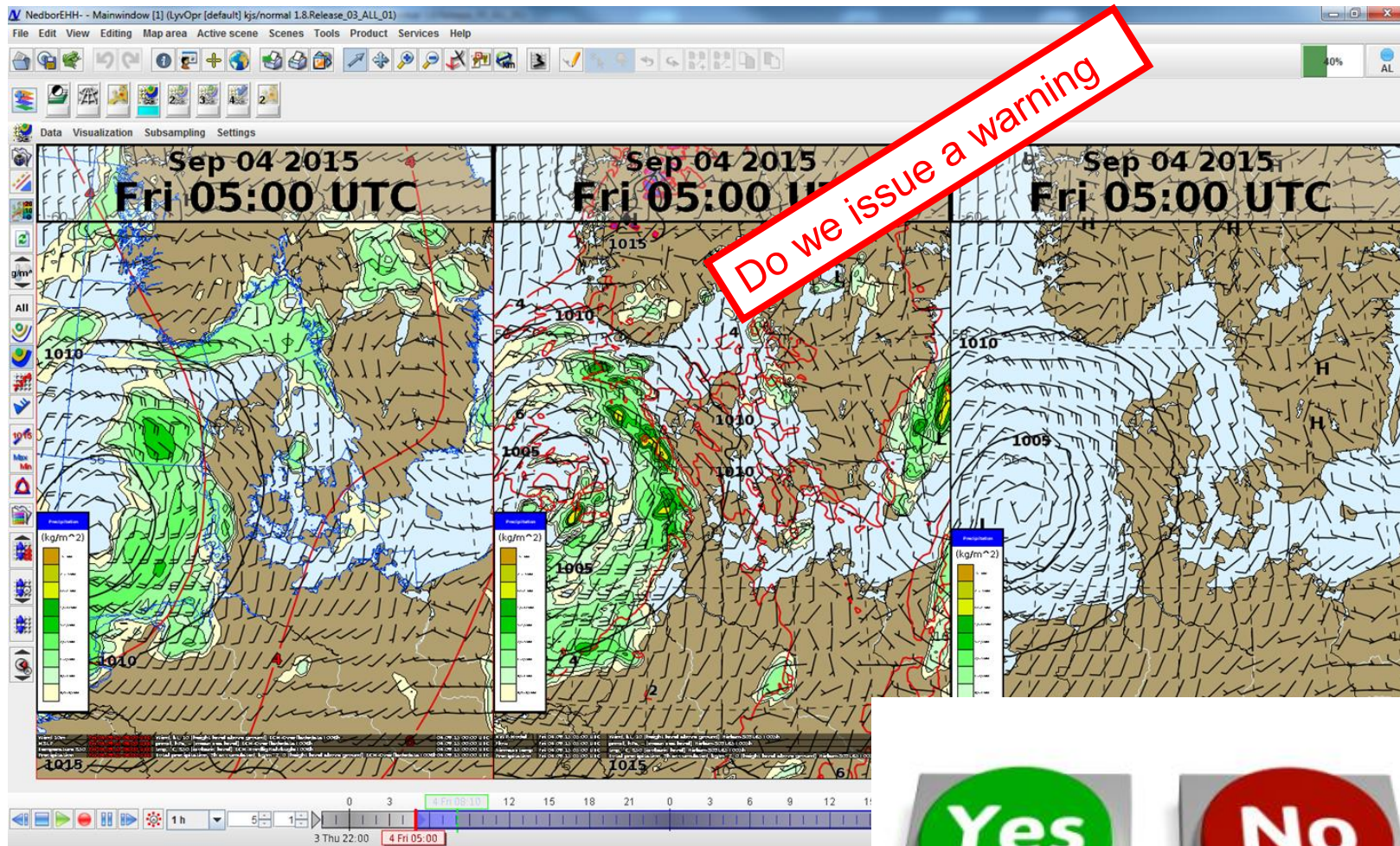
Operational use of meteorological uncertainties decision-making

10. September 2015

K – J Simonsen

kjs@dmi.dk

Different models



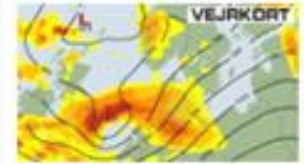
Forecasters world

- Look at the previous model run
- Look at observations
- Experience with models
- Deeper analyzes of the models

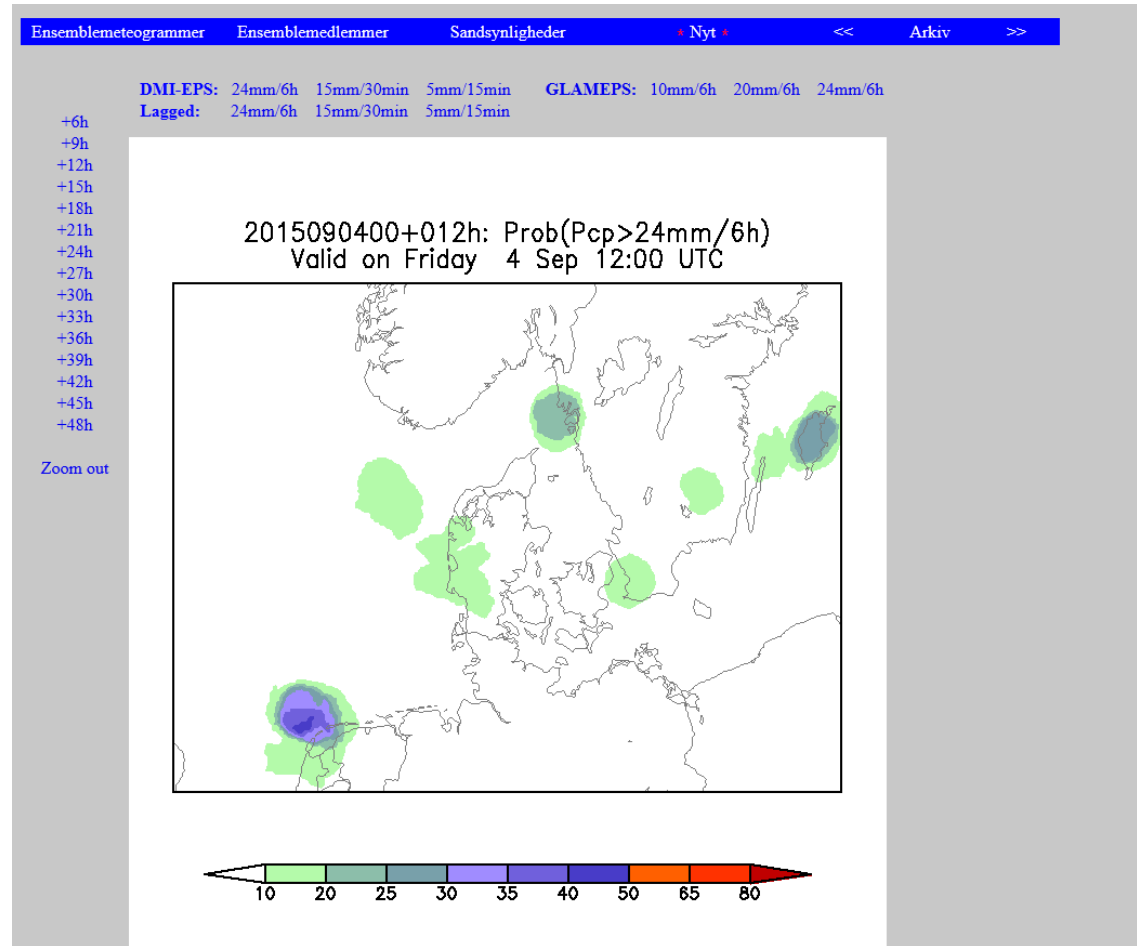
Radar



Vejrkort

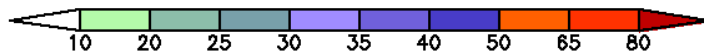
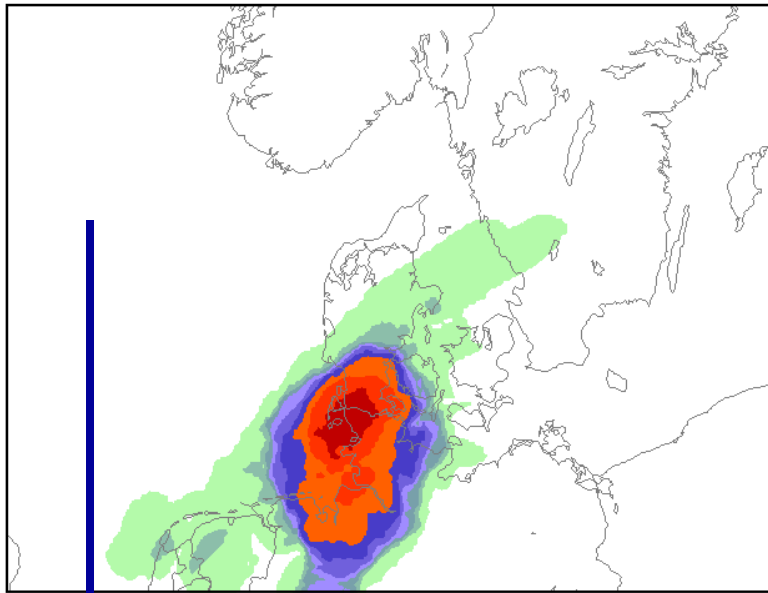


Ensemble the new tool from R&D





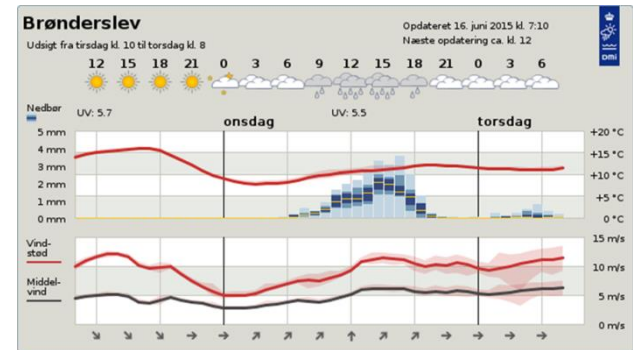
2013061900+024h: Prob(Pcp>15mm/30min)
Valid on Thursday 20 Jun 00:00 UTC



DMI risk

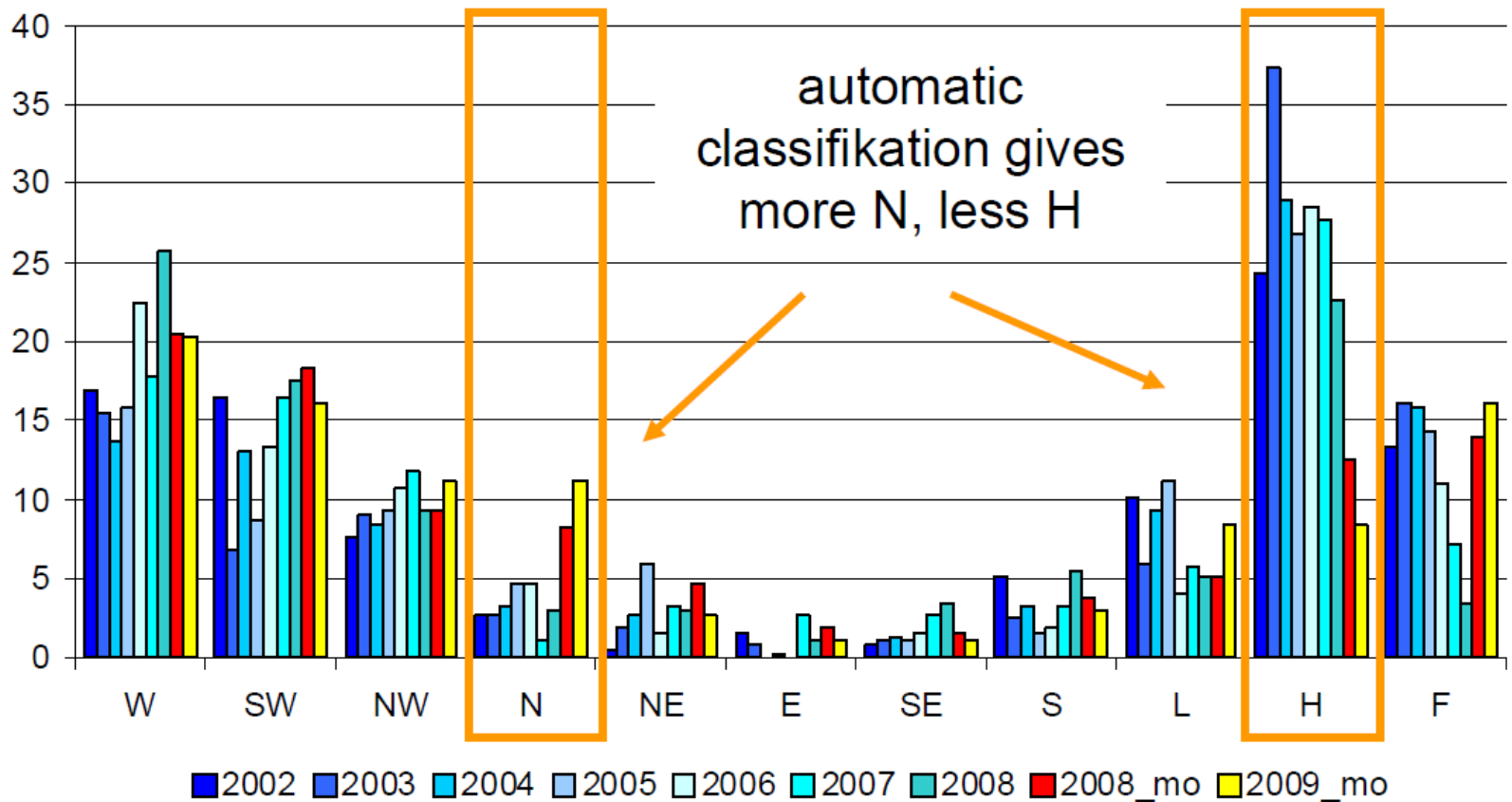
DMI warning

- Rules
 - Based on historic events



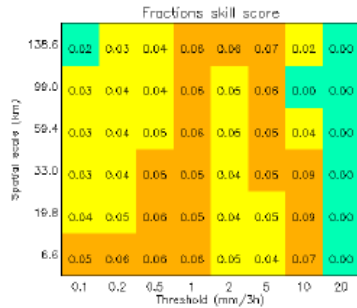


Weather types for the years 2002-2009 (Zala classification and new automatic classification in comparison)

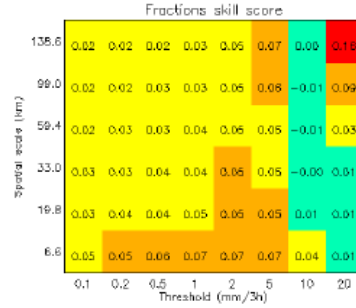




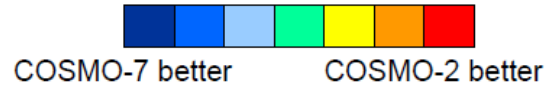
NE



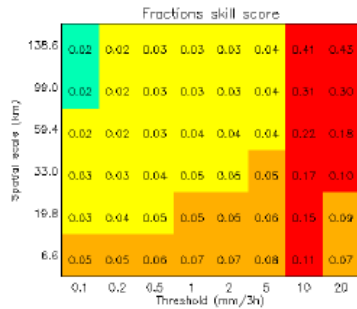
S



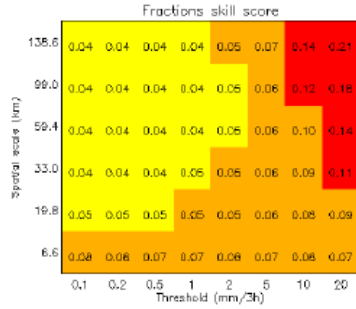
Differences of FSS, 2009 COSMO-2 minus COSMO-7



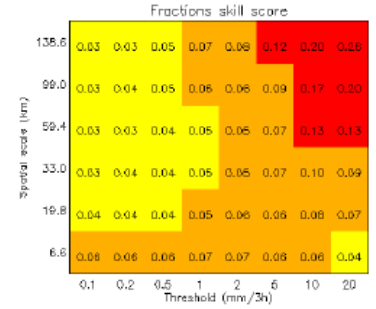
N



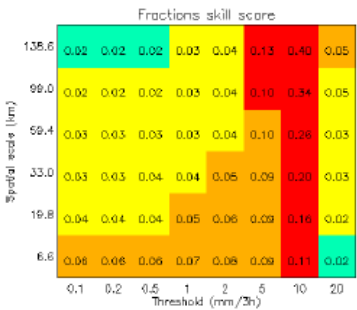
SW



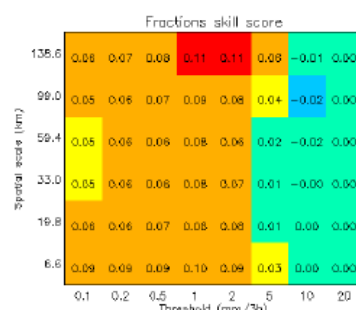
F



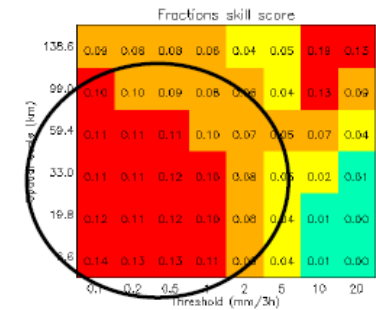
NW



E



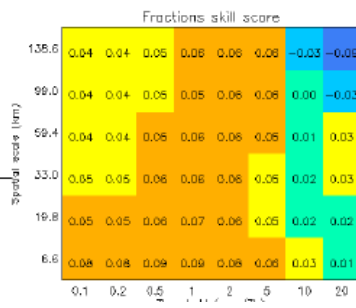
H



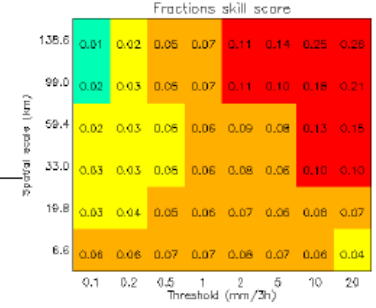
SE



W



L

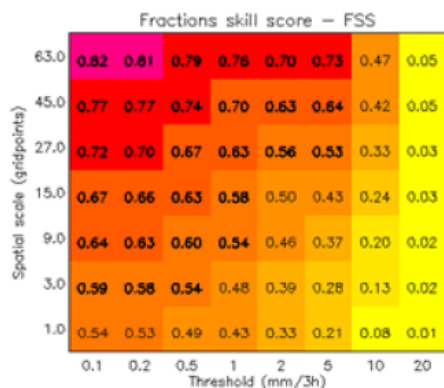


Model verification
2010

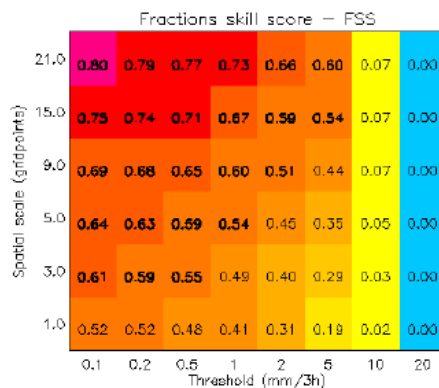


Example NW, 2009

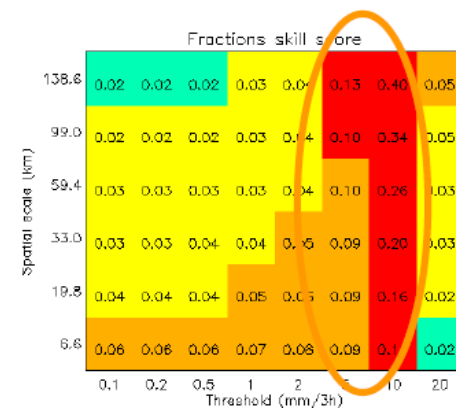
COSMO-2 better especially for high thresholds...



COSMO-2



COSMO-7

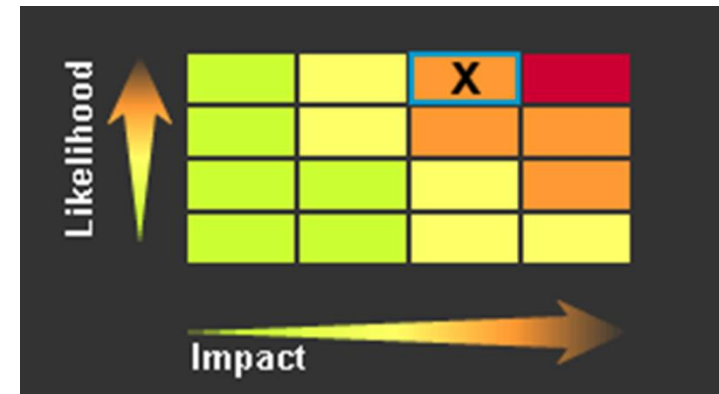
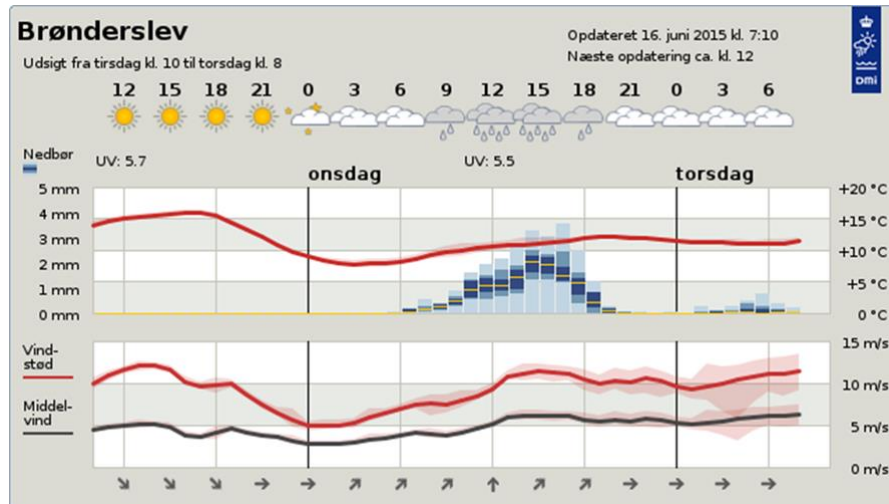


COSMO-2 - COSMO-7

bad good

COSMO-7 better COSMO-2 better





- Tell the users about the expected values
 - Add information about the uncertainties value as the clear message, so the user can take a decision and make plan A, plan B ...