



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
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Swiss Confederation

Federal Department of Home Affairs FDHA
Federal Office of Meteorology and Climatology MeteoSwiss



WG4: interpretation and applications

Pierre Eckert
MeteoSwiss, Geneva



Topics



- Fieldextra → Jean-Marie Bettems
- CORSO-A → Inna Rozinkina
- A page of publicity
- WG4 activities outlook

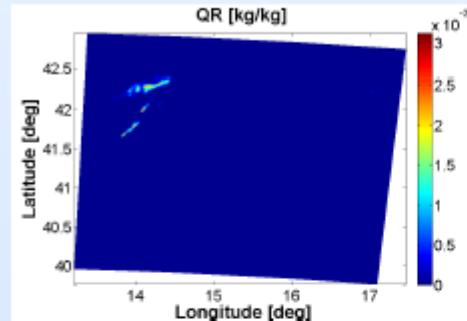


Poster

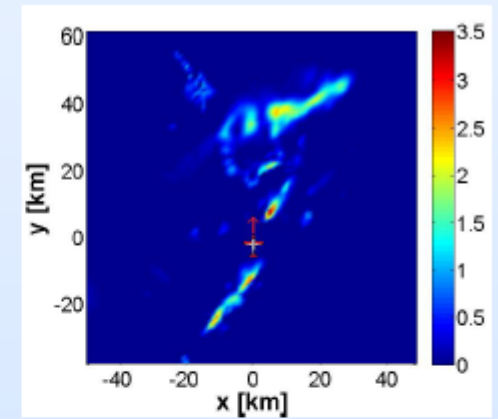
Airborne X-Band weather radar system analysis and

Mario Papa, Paola Mercogliano, Frank Silvio Marzaro
University of Rome La Sapienza, Italian Aerospace

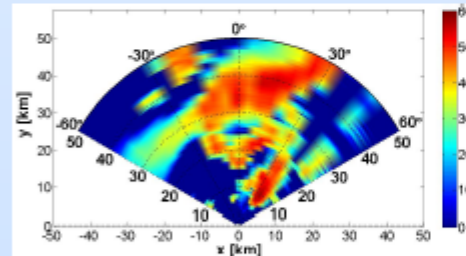
a - COSMO-LM output
Specific water content [kg/kg]



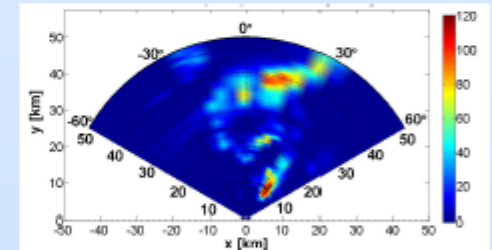
b - Water content [g/m^3]



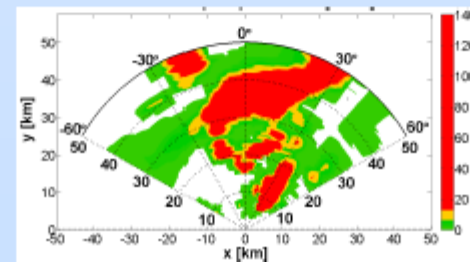
c - Equivalent reflectivity factor [dBZ]



d - Precipitation rate [mm/h]



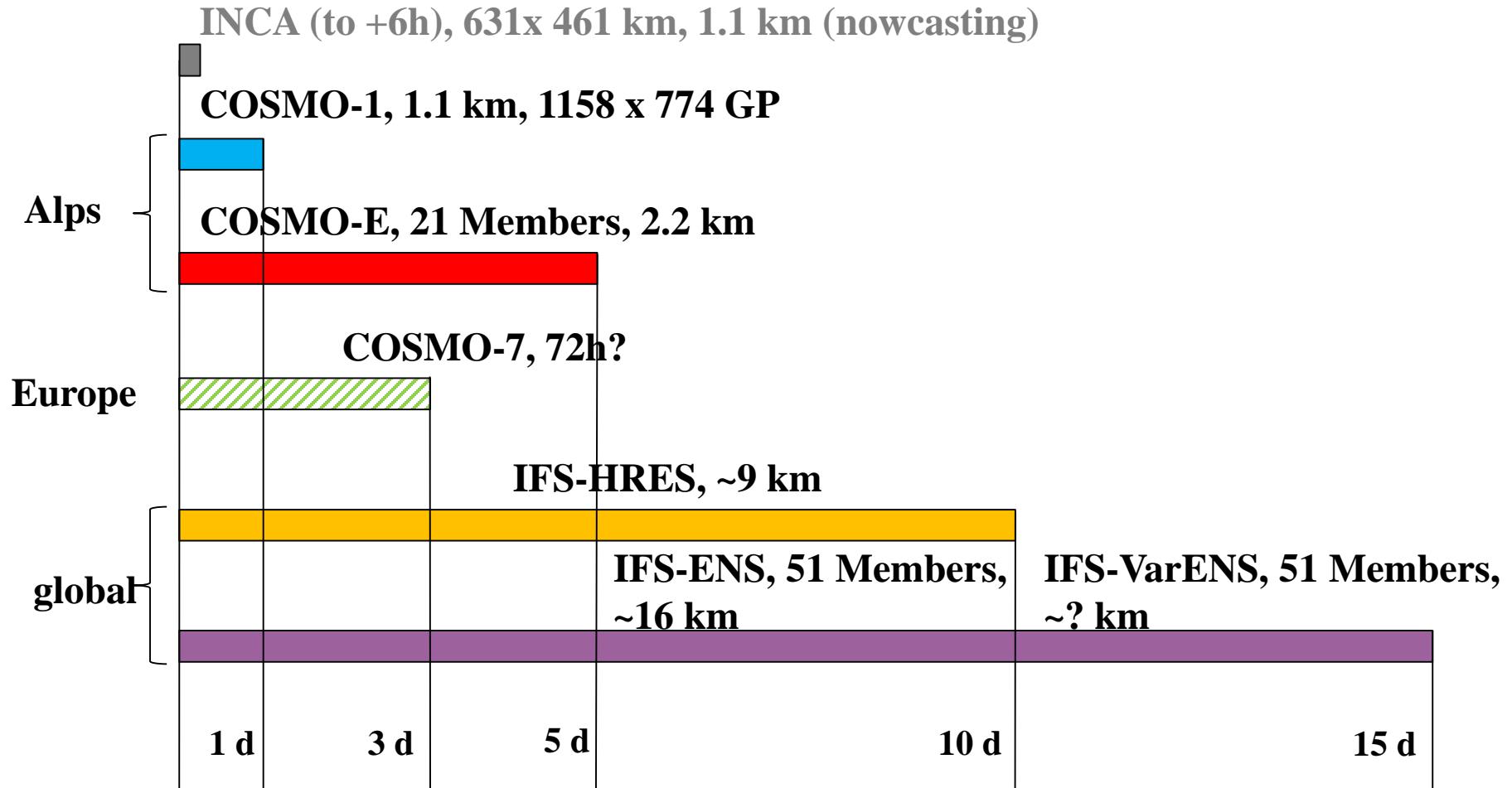
e - Warning image
Precipitation rate [mm/h]





2016 Model characteristics

MeteoSwiss case





High resolution

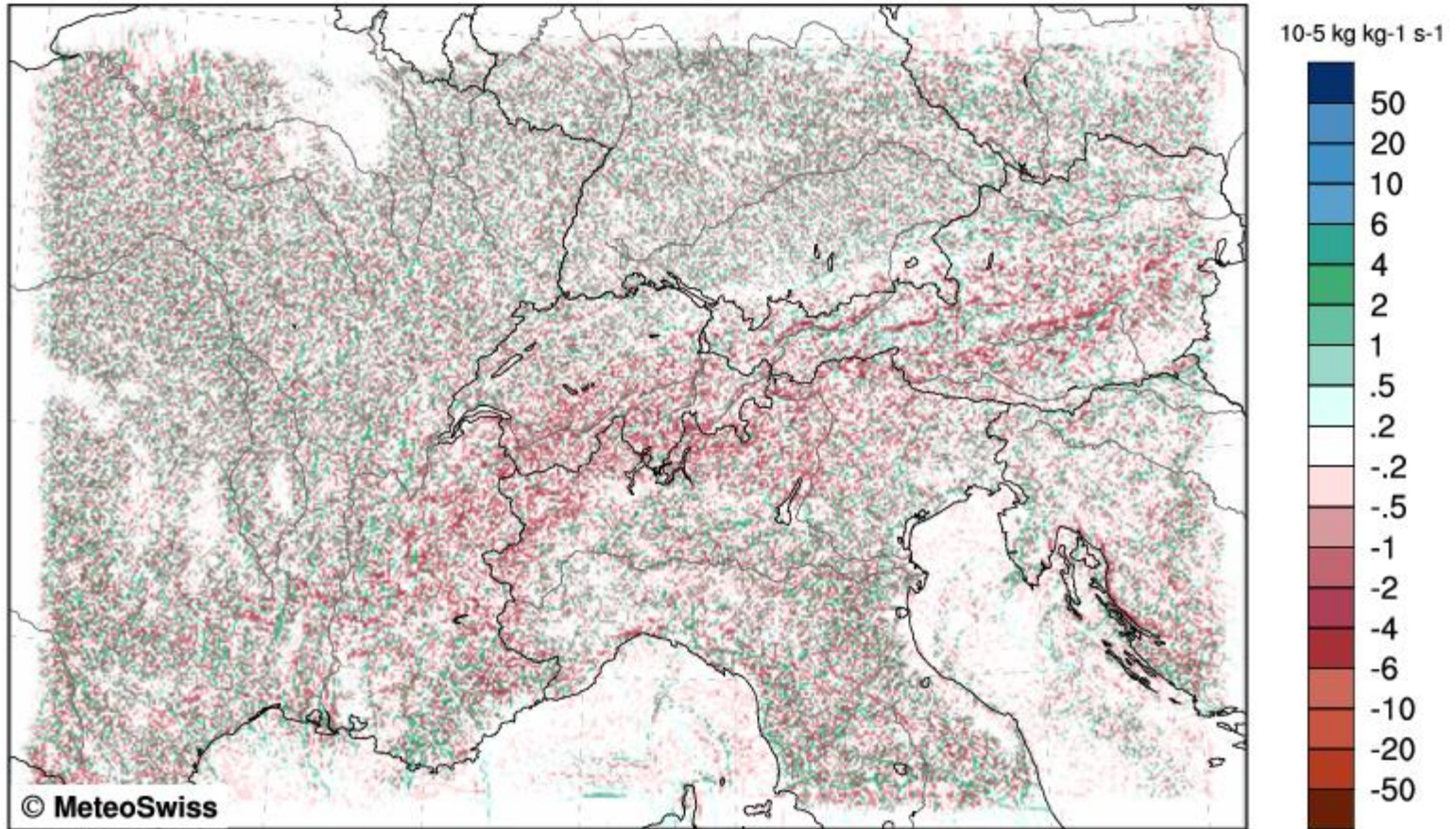
COSMO-1 FORECAST

Version: 570

Horizontal Moisture Flux Convergence

Sun 06 Sep 2015 12UTC

06.09.2015 00UTC +12h



horizontal moisture flux convergence [10-5 kg kg⁻¹ s⁻¹]

Mean: -0.1 m

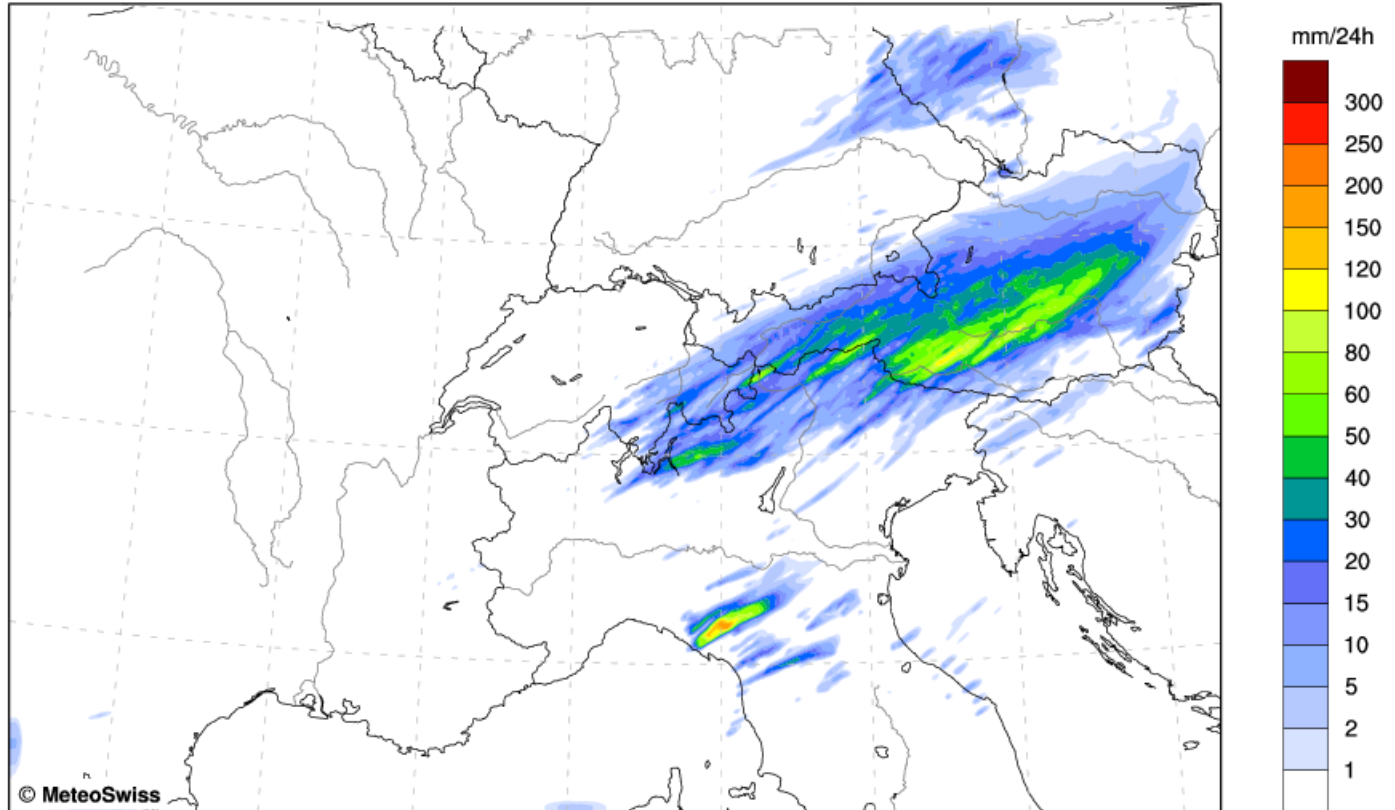


High resolution EPS



COSMO-E ENSEMBLE_FORECAST
24h Sum of Total Precipitation (CTRL)

Fri 04 Sep 2015 12UTC
01.09.2015 12UTC +72h



Precipitation Amount [mm/24h]

Mean: 2.245 Max: 196.801 [mm/24h]

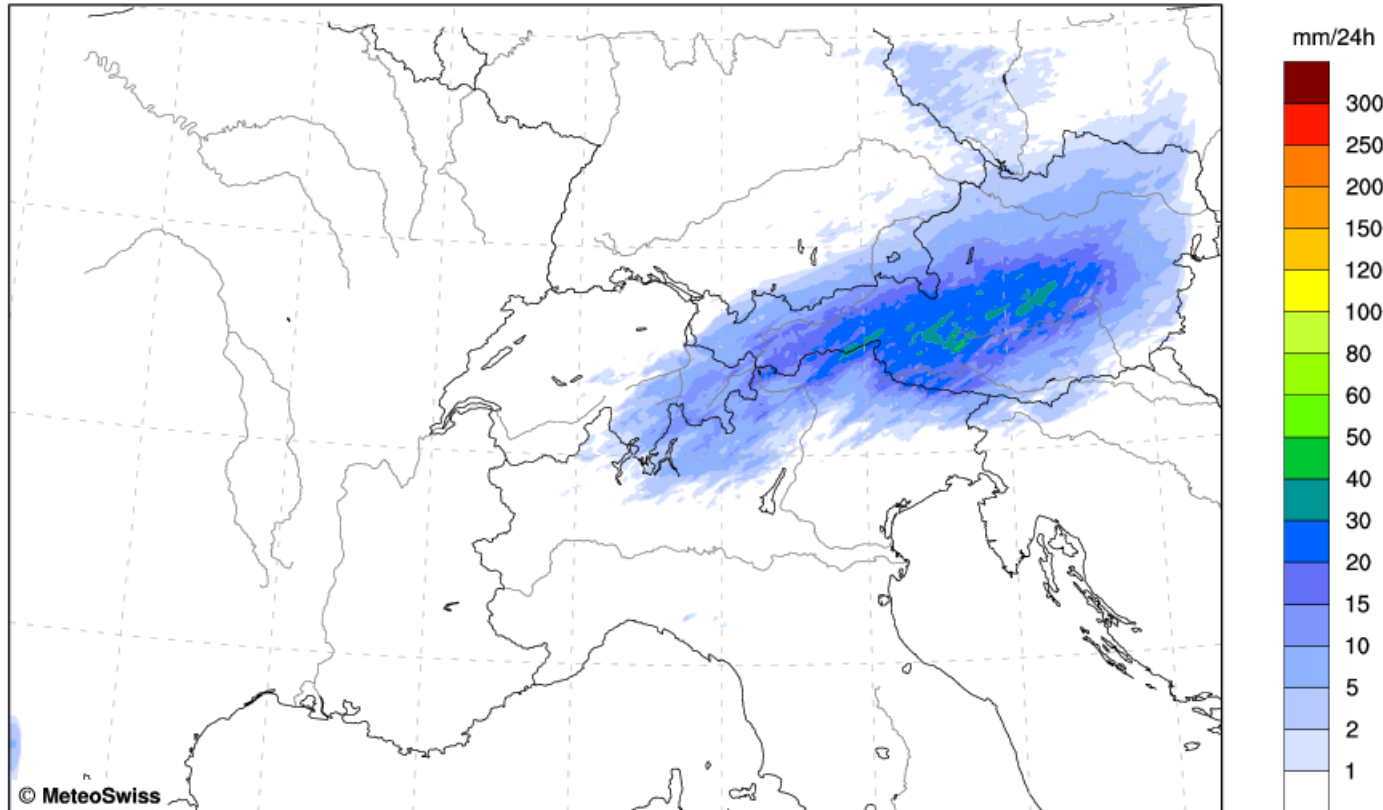


High resolution EPS



COSMO-E ENSEMBLE_FORECAST
24h Sum of Total Precipitation (Q50)

Fri 04 Sep 2015 12UTC
01.09.2015 12UTC +72h



Precipitation Amount [mm/24h]

Mean: 1.317 Max: 47.615 [mm/24h]

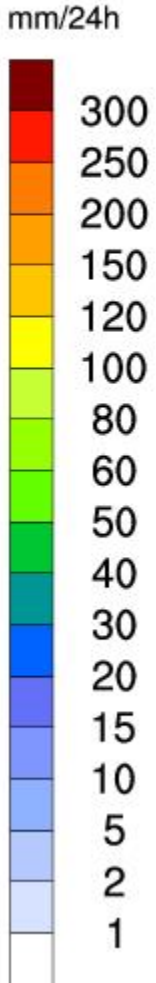
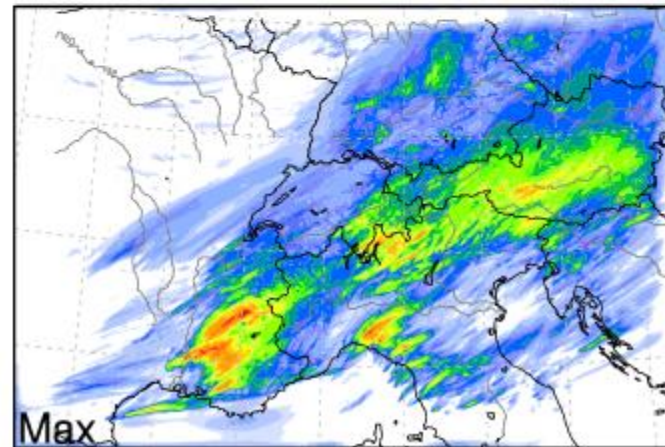
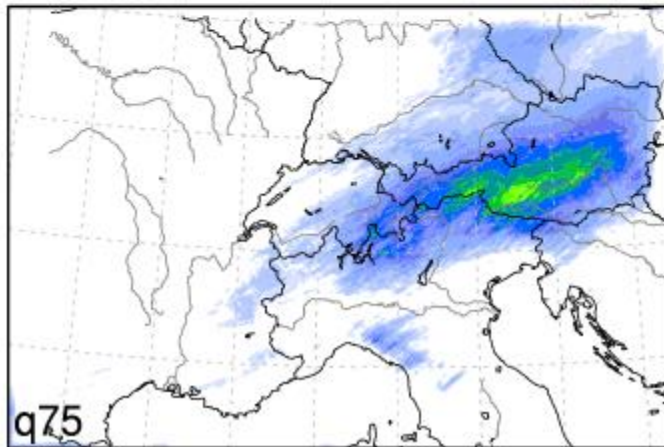
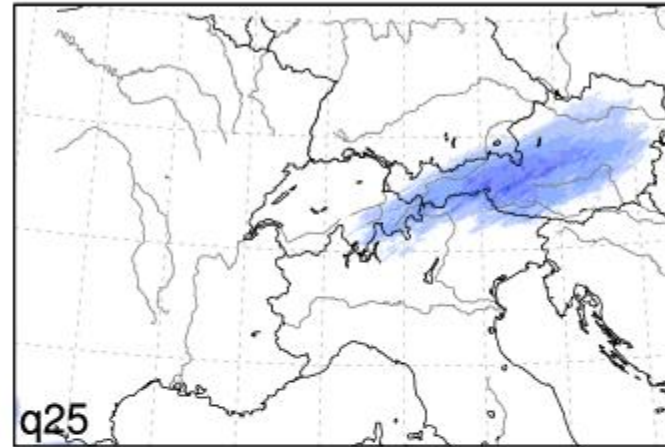
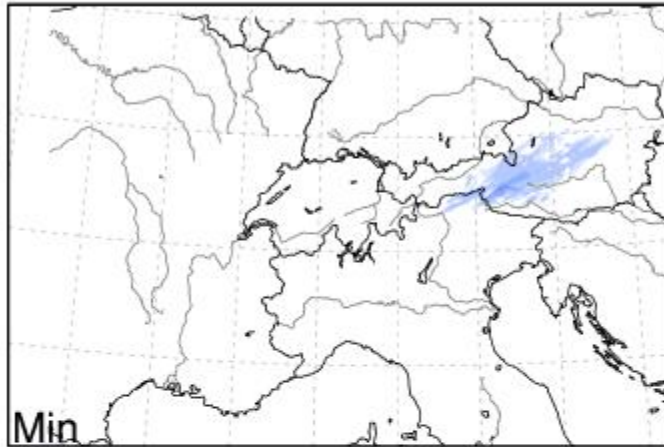


High resolution EPS



COSMO-E ENSEMBLE_FORECAST
24h Sum of Total Precipitation

Fri 04 Sep 2015 12UTC
01.09.2015 12UTC +72h





Adapt forecasting methods



- Promising (verification) results from new models
- Adapt forecasting methods:
 - User oriented verification
 - (Post)-processing
 - Products
 - Visualisation
 - Guidelines
 - Education



MCH Project «processing models»



- (optimised) processing
 - Space / time aggregations
 - Treatment of EPS information
 - Calibration
 -



- Postprocessing
- Seamless forecasting

- Usability and guidelines



- The whole is supported by solid and unified verification methods





The End



Thank you



Opportunities



- Priority project INSPECT
- Priority project SPRED
-
- Renewable energy applications
- Aviation