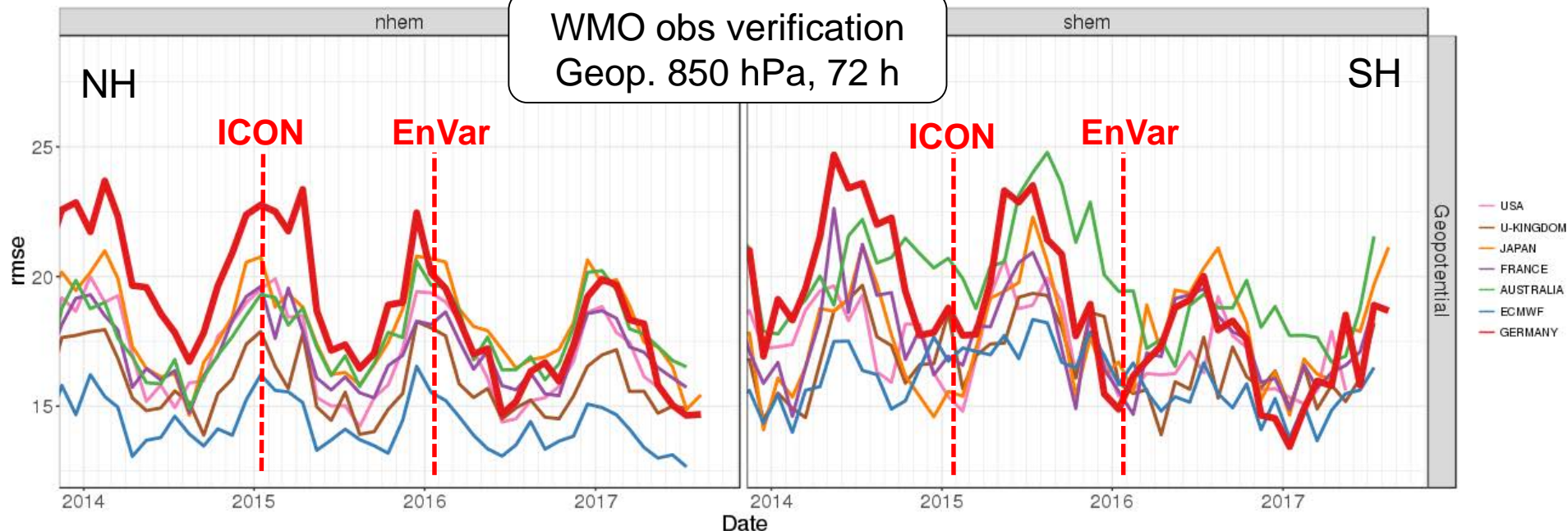


NWP system upgrade

➤ Introduction of ensemble DA:

- Global ICON: EnVAR (at 13 km/6.5 km) + LETKF (at 40 km/20 km)
- High-resolution: LETKF (at 2.8 km covering Germany)

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 - High res. COSMO – EPS at 2.8 km



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Satellite DA developments

- **Assimilation of water vapour channels:**
 - IASI, MHS (global EnVar+LETKF) pre-operational (for Q1 / 2018)
 - SSMIS, ATMS, SAPHIR, GMI, AMSR-2 implemented for experiments
- **Use of IR & MW radiances over land:**
 - Implementation of RTTOV-12 emissivity atlases and retrieval of ϵ_s
- **Experiments with IASI PC compressed radiances** (as reconstr. radiances)
- High-resolution LETKF: Assimilation of **SEVIRI visible & cloudy IR** radiances
- ...