



# COSMO model in Poland

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## Configuration of the model at IMGW

|                                    |  |
|------------------------------------|--|
| <b>Domain size</b>                 | <b>193 x 161 grid points</b>                 |
| <b>Horizontal Grid Spacing</b>     | <b>0.125° (~14 km)</b>                       |
| <b>Number of Layers</b>            | <b>35</b>                                    |
| <b>Time Step</b>                   | <b>80 s</b>                                  |
| <b>Forecast Range</b>              | <b>78 h</b>                                  |
| <b>Initial Time of Model Runs</b>  | <b>00 UTC i 12 UTC</b>                       |
| <b>Lateral Boundary Conditions</b> | <b>Interpolated from GME at 3h intervals</b> |
| <b>Initial State</b>               | <b>Interpolated from GME</b>                 |
| <b>Model Version running</b>       | <b>Im_f90 4.0</b>                            |
| <b>Hardware</b>                    | <b>SGI 3800 (using 88 of 100 processors)</b> |



## **Achievements over the last COSMO year:**

- **1dVar: incorporation of nudging mode, implementation of AMSU-A, B data nudging,**
- **UTCS: tests of modifications in the COSMO-model deep convection Tiedtke's scheme,**
- **VERSUS: porting of Common Verification Suite package, preparation of the VERSUS package for delivery,**
- **KENDA: participation in implementation of an ensemble data assimilation framework, modification of model code,**
- **INTERP: development of hydrological products based on COSMO model, “fuzzy” verification of very high resolution model)**



## **Future development of the NWP system:**

- **moving to Linux cluster environment (2008/2009),**
- **operational implementation of the 7-km resolution in 2009,**
- **semi-operational implementation of 2.8 km resolution for selected small-area sub-domains (2009/2010),**
- **implementation of the assimilation cycle (2009/2010),**
- **implementation of operational 2.8 km resolution (2012/2013, depending mainly on hardware access).**



# COSMO model users and customers



- **Forecasters**
- **Hydrologists**
- **Crisis Management Centre**
- **Media (TV, Radio, Web pages portals )**
- **Energy companies**
- **Maintenance services**
- **others**



**Poster:**

**„Current activities in a frame of Cosmo model in Poland”**



Thank you for your attention