The CHMI Nowcasting Webportal - Presentation of Nowcasting-related Information to General Public in the Czech Republic

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For successful nowcasting of meteorological phenomena, it is not enough to have access to precise high-resolution measurements and to run sophisticated nowcasting systems but also to present obtained analyses and forecasts to the end-user with minimal time delay and with possibility of detailed geographical and temporal localization of hazardous meteorological events.

The Czech Hydrometeorological Institute (CHMI) utilizes measurements from wide range of meteorological instruments (own and internationally exchanged) and runs several nowcasting systems focusing on different meteorological hazards. Participation of the CHMI in the INCA-CE project (CENTRAL EUROPE Programme co-financed by the European Regional Development Fund) facilitated implementation of the INCA nowcasting system in the CHMI (INCA-CZ) and also accelerated development of new CHMI Nowcasting Webportal.

The CHMI Nowcasting Webportal is a web application that enables not only presentation of analyses and forecasts from the INCA-CZ nowcasting system but also includes remote-sensing and station measurements and results of some other nowcasting tools (like the COTREC extrapolation forecasts). The CHMI Nowcasting Webportal is based on experiences with previous development of the JSMeteoView (web-based visualization tool of remote sensing data used operationally by the CHMI forecast offices).

The webportal is available to general public on the CHMI webserver. In comparison with former web-presentations, people get access to more meteorological information with better temporal and spatial resolution. Utilization of specialized high-resolution pre-generated geographical layers and Google Maps API enable flexible visualization of meteorological fields and detailed geographical localization. The source code of the CHMI Nowcasting Webportal was used as a basis for developmet of INCA-CE Central European Nowcasting Webportal in Austrian weather service (ZAMG). Some of the newly developed features of the webportal were implemented back to the JSMeteoView.

The paper summarizes history of presentation of nowcasting-related data to the public on the CHMI webservers, presents details about development of the CHMI Nowcasting Webportal, shows some of its examples, describes all implemented data fields and outlines plans for its future improvements.