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Validation strategies for scatterometer derived soil moisture in the framework of the H-SAF Hydrological Validation Programme

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The Satellite Application Facility on Support to Operational Hydrology and Water Management (H-SAF) has the aim to produce new satellite derived products for precipitation, snow, and soil moisture for hydrological applications on an operational level. The validation of these satellite-derived products is addressed in a dedicated Hydrological Validation Programme, where the applicability of the data for operational use in hydrologic applications is evaluated.

As part of this validation programme, the benefits and impact of the soil moisture product to hydrological models on different European river catchments is evaluated. The soil moisture product is derived from ERS (50km) and METOP data (25km resolution) for whole Europe and represents the surface soil degree of saturation. This product is evaluated using the semi-distributed hydrological model SCHEME over Belgian river catchments. Another part of the work comprises the evaluation of agreement between scatterometer derived soil moisture data and five Slovakian in-situ gravimetric soil moisture stations.

In this contribution, we present current activities of the H-SAF Hydrological Validation Programme and first results.