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Internationally Coordinated Validation of Satellite-Derived Land Surface Products

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THEME: Airborne and innovative remote sensing platforms and techniques
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ABSTRACT:

The mission of the Land Product Validation subgroup is to coordinate and standardize the quantitative validation of satellite-derived products to contribute to reliable and traceable Essential Climate and Biodiversity Variables. The focus lies on a standardized validation across products from different satellites and algorithms. We present the current state of land surface product validation for nine Essential Climate and Biodiversity Variables and a framework for reaching the highest validation stage. The validation framework is tailored to each variable and includes 1) a citable protocol with best validation practices, 2) the generation of a fiducial reference data set based on existing network data or other documented data sources, and 3) the automatic subsetting of main satellite products. Ideally, above components are implemented in an online tool, resulting in a standardized intercomparison and validation report available to the user community. We conclude our presentation with the identification of methodological gaps and data needs for a sustainable validation following the above framework. The standardized validation information will be useful for many user communities, for selecting a single product with known uncertainties or a set of most reliable products for building an ensemble estimation.

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