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# Preliminary assessment of a new SoDa service for real-time estimates and short-term forecasts of the solar radiation

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Meteosat images are routinely processed at Transvalor / MINES ParisTech for assessing the solar radiation at ground by the means of the Heliosat-2 method. So far, Heliosat-2 was launched every night to update the HelioClim-3 (HC3) database with the images collected during the day. HC3 data were thus available so far at d-1. Several requirements were made by customers of HC3 for a real-time and forecast capability for horizons up to 2 h. It would help in managing the PV plants or intelligent buildings, and eventually increasing the financial gains. The major challenges to develop such a capability were pertaining to the scientific domain in order to find an accurate method, and to operational constraints. The constraints are on both sides: provider and customer. The method should be fast enough to enable the processing of large areas such as Europe, and its outputs should be such as they can be directly ingested in the own processes of the customers. The selected model is based on a local persistence and has been validated against in situ measurements. A prototype has been set up and tested for several weeks by 15 customers. The customers used the outputs of this prototype as inputs to their own processes and made their own validation by comparing the results against measurements of, e.g. PV yield. The feedback gathered from testers was overall positive and a new operational service was set up based on the prototype (http://www.soda-pro.com/soda-products/real-time-and-forecast). Further validation campaigns are planned during the second semester of 2015, either by comparing to ground measurements or performed by users with their own criteria.