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Assessment of climate services prototypes on seasonal water management for the Mediterranean regions

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In the framework of the MEDSCOPE project, Météo-France has initiated the development of new prototypes for seasonal water resource management in the Mediterranean region, addressing different scientific and technical challenges essential for a future operationalization of the services . In order to have a replicable result on the Mediterranean area, we decided first to consider the three large watersheds onof the Rhone river in France, the Ebro river in Spain and the Po river in Italy.

Our first challenge was to use a new hydrologic model SURFEX-CTRIIP, covering the whole Mediterranean area. Another point was to perfect and evaluate a new downscaling tool named ADAMONT permitting to debiase all seasonal forecast input variables needed for hydrology applications and not only (temperature and, precipitation and 5 other surface meteorological parameters). We decided also to assess the new UERRA hydrological analyse available on these three countries. Lthe last challenge was to identify local end users facing with decision making process at seasonal scale for water resources management and develop decision help products adapted to their needs.

The evaluation of these prototypes, carried out over the period 2019-2020 using the MF Syst 6 and then Syst 7 seasonal forecasting model, has highlighted a significant potential in a future operational application but also difficulties to be overcome.

The communication will present the main results of this work and discuss the lessons to be learned from this experience