

## HyMeX - HyMeX: The WCRP perspective, links with GEWEX, MED-CLIVAR and MED-CORDEX

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HyMeX (Hydrological cycle in the Mediterranean Experiment) is an international project which aims at - improving our understanding of the water cycle, with emphases on extreme events by monitoring and modelling the Mediterranean coupled system (atmosphere-land-ocean), its variability (from the event scale, to the seasonal and interannual scales) and characteristics over one decade in the context of global change, - evaluating societal and economical vulnerability and adaptation capacity to extreme meteorological and climate events. Series of coordinated observation periods will be performed during the 2010-2020 time-window. They will be based on measurement campaigns, the deployment of dedicated instrumentation, and the enhancement of existing operational systems. Outcomes of the multi-disciplinary research conducted in HyMeX should be beneficial to the improvement of 1. observational and modelling systems, especially of coupled (ocean-atmosphere-land) systems, 2. the prediction capabilities of high-impact events, 3. the accurate simulation of the long-term water-cycle, 4. the definition of adaptation measures, especially in the context of global change. As a recently labelled GEWEX Regional Hydroclimate Project, HyMeX aims at contributing to the WCRP objective of improving the understanding of the global hydrological cycle and prediction of its evolution by a coordinated set of studies targeted at the Mediterranean region, by the development, validation and improvement of atmospheric and hydrological models, coupled or not and by real-time forecasting applications during the coordinated observation periods. HyMeX benefits from a large scientific network organized in the framework of MED-CLIVAR and contributes to the MED-CORDEX initiative which aims at providing regionally downscaled data set of information for the recent historical past and 21st century projections in the Mediterranean area based on the GCM climate scenarios and predictions of CMIP5 and at providing information for vulnerability assessment and adaptation strategy evaluation.