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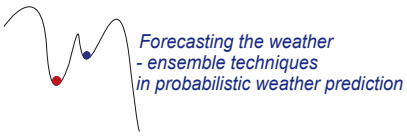


# Securing the application of GCOS climate monitoring principles at KNMI (the Netherlands)

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Changes in the measurement network of meteorological institutes are sometimes inevitable. Often this concerns a forced relocation of a station (e.g. because of cancelation of the terrain) or a relocation because of abrupt or slow changes in the terrain around the measurement site. In the latter case, measurements are mostly no longer representative for the neighbourhood of the site. Changes in measurement networks may also be meant to (a) improve the quality of the measurements, for instance by introducing improved sensors and/or covers, or (b) work more efficiently with respect to costs.

In principle changes in the measurement network or surroundings lead to inhomogeneities in climate time series. For climate research and applications these artificial jumps or trends are unwanted and should therefore be minimized.

KNMI recently developed and adopted a Protocol for Changes in the Measurement Infrastructure. The protocol assures (a) a minimization of inhomogeneities in climate time series, (b) an adequate and timely assessment of the nature and magnitudes of inevitable inhomogeneities, and (c) adequate communication about changes in the measurement infractructure and their implications. The current protocol may serve as an example of how the GCOS principles for climate monitoring can be implemented in the daily practice of climate monitoring.