



## **COST Action ES0601 "HOME"**

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Long instrumental climate records are the basis of climate research. However, these series are usually affected by inhomogeneities (artificial shifts), due to changes in the measurement conditions (relocations, instrumentation and others). As the artificial shifts often have the same magnitude as the climate signal, such as long-term variations, trends or cycles, a direct analysis of the raw data series can lead to wrong conclusions about climate change. In order to deal with this crucial problem many statistical homogenisation procedures have been developed for detection and correction of these inhomogeneities. At present only a limited number of publications intercompare some common methods and their impact on the climate record. The large number of different methods could be seen as a weakness in the science and is a challenge for the climatological community to address. There is therefore a need for a coordinated European initiative in order to produce standard methods designed to facilitate such comparisons and promote the most efficient methods of homogenisation. The Action's main objective is to achieve a general method for homogenising climate and environmental datasets. The method will be derived from the most adapted statistical procedures for detection and correction of varying parameters at different space and time scales.