Abstract. It is shown that moving averages sequences are good in the mean for multiparameter strongly superadditive processes in $L_1$, and good in the $p$-mean for multiparameter admissible superadditive processes in $L_p$, $1 \leq p < \infty$. Also, using a decomposition theorem in $L_p$-spaces, a.e. convergence of the moving averages of multiparameter superadditive processes with respect to positive $L_p$-contractions, $1 < p < \infty$, is obtained.