

The present invention relates to processing speech coding parameters in a telecommunication system. The speech coding parameters of a speech frame, produced by a speech encoder, are divided into groups, i.e. so-called virtual channels, in which speech parameter error correction, channel coding and processing of error-free or erroneous speech parameters are performed independently. At the receiving end, the processing (505) of erroneous and error-free speech parameters can thus be controlled independently on each virtual transmission channel (502) according to the quality of each virtual transmission channel. The speech parameters of the high-quality virtual channels of a speech frame can thus be processed as error-free, replacing the speech coding parameters of the low-quality virtual channels only. The independently processed (505) speech parameters of the virtual channels are thus reassembled (507) into a speech frame, which is applied to decoding. Since part of the information of also erroneous speech frames is utilized, the use of speech information received from a transmission channel can be increased in speech decoding, which reduces for instance interruptions occurring in speech as compared with a situation where all speech frames erroneous even to a slight degree were discarded. The increased and more focused error indication also reduces the number of undetected errors and thus reduces significantly the worst audible disturbances.