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Results of the QA/QC issues of Carboeurope-IP

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Most of the Main Sites of the CarboEurope-IP cluster flux network were evaluated for the quality of eddy-covariance data by means of quality checks as well as for the representativeness of the flux footprint for the respective target area. Results of the footprint analysis for 25 forest sites and 27 stations above low vegetation were completed. For each of the participating sites, a QA/QC report is available. Selected results of sensor influences, footprint climatology and the effects of heterogeneous landscape on the data quality of eddy-covariance data will be presented.

A quality control tool and a new calculation scheme for eddy-covariance data was realized and is available. This was the basis for a software comparison experiment of seven widely used software types. The carbon dioxide flux estimated with the use of these different software packages varies within approx. 5 %. Significant differences can be seen in the correction of high frequency losses and in the WPL correction.

In all parts of this work, the Waldstein-Weidenbrunnen site of the University of Bayreuth was used as a data quality test station.