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CHIOTTO - A European network of tall towers observing multiple greenhouse species: progress and first results

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The CHIOTTO project objective is to build an improved infrastructure for the continuous monitoring of the concentrations of greenhouse gases on the European continent above the surface layer using tall towers. This will be an important step towards a fully operational continuous observing system with high accuracy, frequency and precision that will be of use in the framework of the Kyoto Protocol for validation of the strengths of sources and sinks of the most important greenhouse gases (CO_2, CH_4, N_2O, SF_6) over Europe.

An important aspect of the objective is the establishment of high quality calibrations and regular intercomparisons of the measurements for 4 existing and 4 new atmospheric measurement stations, and the implementation of a near-online data-

transmission system for tall tower measurements.