E-GVAP: Status and future

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E-GVAP (the EIG EUMETNET GNSS Water Vapour Programme) is an operational service providing atmospheric delay estimates for use in operational meteorology in near real-time. This is done in a close collaboration between geodetic and meteorological institutions. The use of the GNSS delay estimates is found to increase the skill of weather forecasts.

By the start of 2019 E-GVAP has, along with EUMETNET itself, entered a new phase. In E-GVAP 4 the main product will still be zenith total delays (ZTD), with a focus on improving timeliness, in support of the high resolution, local weather models with frequent updates being set up these years. But in addition there will be focus on GNSS derived slant total delay (STD) estimates. Several of the weather models used in Europe are being prepared for STD assimilation. The STDs provide additional information, on atmospheric asymmetries, on top of the information contained in a single ZTD estimate.