

# AUSTRIA

## Precision farming with the Austrian Positioning Service

*“The use of APOS in automatic steering systems for Austrian agriculture has become essential. BEV takes the next step towards innovative solutions by transmitting correction data (RTK correction signal) via mobile internet. Also, we are working on delivery of free correction data via broadcast systems for all users. This step should be realized by the end of 2021 and will thus ensure cm-accurate positioning even for the mass market.”*

*Wernher Hoffmann, President of Federal Office of Metrology and Surveying (BEV), Austria*

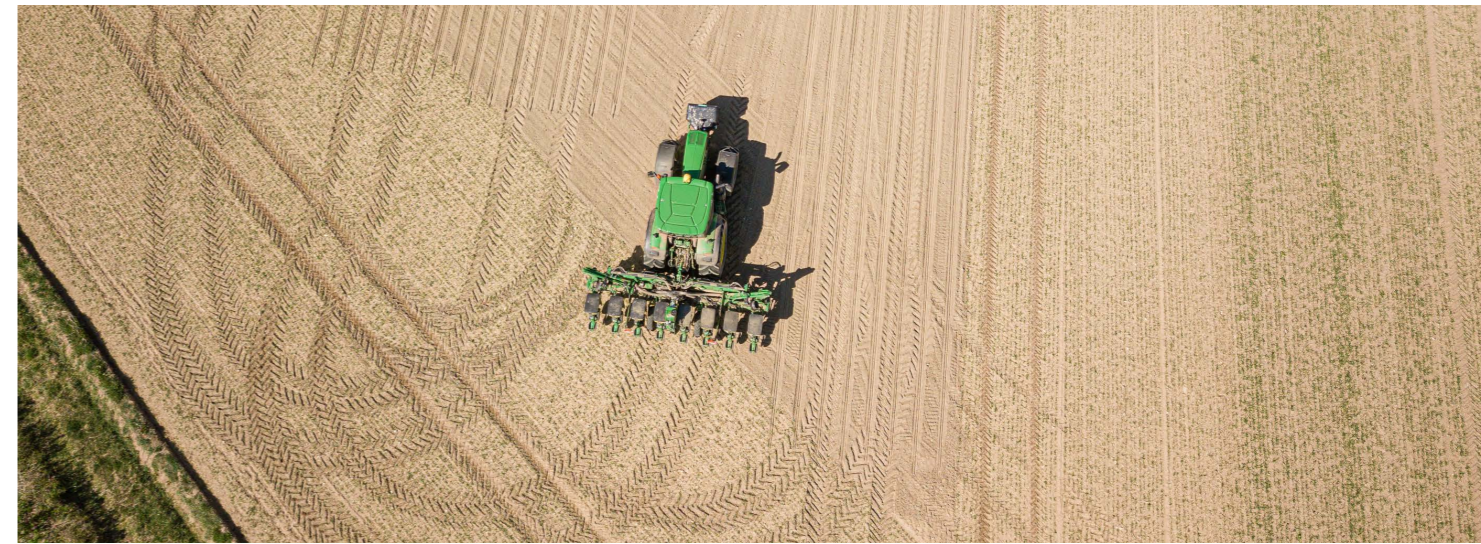
**The Federal Office of Metrology and Surveying (BEV) is expanding the APOS (Austrian Positioning Service) satellite navigation service to serve real-time kinematic (RTK) signals to a large user base. In a first step, Austrian agriculture is using the RTK signal for precision farming.**

APOS is a multi GNSS positioning service which utilises GPS, GLONASS and GALILEO. The reference station network used by APOS consists of 37 GNSS reference stations throughout Austria. Additionally, all border GNSS reference stations of neighboring countries are included. APOS is the RTK positioning service for Austria, providing nationwide homogeneous 3D coordinates in the European Terrestrial Reference System (ETRS89) with cm accuracy. In order to provide RTK signals to the masses, it was necessary to completely redesign the APOS system and the central IT infrastructure.

In a first step, the RTK correction signal from APOS will be made available to the agricultural sector free of charge. The utilisation of APOS for agriculture and forestry was defined in an agreement between the BEV and the Federal Ministry of Agriculture, Regions and Tourism. The use of automatic steering systems is one of the most widespread digital applications in Austrian

agriculture. In order to use APOS for automatic steering, in addition to the required hardware, the transmission of correction data (RTK correction signal) via mobile internet to the agricultural machine is necessary. Using APOS a lane accuracy of approx. 2cm can be expected.

In addition to the use of APOS by the agricultural sector, the BEV is working on enabling free correction data transmission via broadcast systems for all users. This step should be realised by the end of 2021 and will provide cm-accurate positioning for the mass market. As a government infrastructure, APOS forms a foundation for supporting and promoting the innovative strength of Austrian companies in the implementation of a large number of future applications. The area of smart cities or the Internet of things, are just some examples where APOS can be utilised.



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