In response to the demand for a better understanding of climate change, Gasmet Technologies and researchers from the University of Helsinki have created a video to demonstrate the speed and simplicity with which Greenhouse Gas (GHG) measurements can be taken in the field.

Following the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal. As a result, it has never been more important to fully understand the sources and sinks of greenhouse gases. For example, according to the US EPA, about 40% of total N2O emissions come from human activities and of this most is derived from the management of agricultural soil. In addition, enormous concern exists with regard to the release of GHGs from melting permafrost. The measurement of GHGs from soil is therefore a vital and growing area of climate change research.

Portable Gasmet gas analyzers are ideal for monitoring GHG fluxes from soils and have already been employed by researchers around the world. For example, researchers in the Arctic have employed Gasmet FTIR to take measurements which have provided an insight into the production, consumption and exchange of GHGs.

Changes in farming methods can have a significant effect on the release of GHGs and in other work, researchers in Ireland have employed Gasmet FTIR to track GHGs in a project to reduce nitrates in rivers. Similarly, researchers in Texas, USA, have employed the same technology to measure GHG's from the soil within biofuel crops. This work has helped to identify agricultural practices with the greatest overall biofuel production efficiency based on net GHG emissions savings in comparison with fossil fuels.
The soil GHG monitoring video (<10 minutes) can be viewed at www.gasmet.com/applications/environment/greenhouse-gas-soil-emissions