Since January 2020, the GSMA's 'Greenhouse Gas Studies' team has been part of the COCCON network [Frey et al.(2019)], which uses a Europe-wide network of EM27/SUN spectrometers for the long-term monitoring of the 3 main greenhouse gases (H2O, CO2, CH4).

Until now, the GSMA operated its EM27/SUN manually, which required the presence of two people on measurement days and considerably reduced the number of recording days in the year. Since September 2024, the set-up has been equipped with a watertight, temperature-controlled housing that enables the EM27/SUN to be operated fully automatically 24/7.

This casing was developed by the LSCE (Morgan Lopez, Benoît Macquart) and is marketed by the Champagne region company ELONEO. It also uses the Pyra software developed by the University of Munich to automate the whole process [Dietrich et al.(2021)] [Aigner et al.(2023)].

This new tool will considerably increase the amount of data collected and enable us to participate more effectively in Calibration/Validation (Cal/Val) campaigns for greenhouse gas observation and monitoring satellites. In particular, for the year 2025, our measurement site (M.D.H.) will play an active role in the Cal/Val of Microcarb (launch planned for 2025 - CNES) and TROPOMI (mission in progress - ESA).